NIETZSCHE’S RECONCEPTION OF SCIENCE: OVERCOMING NIHILISM

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DISSERTATION
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ABSTRACT

I argue that Nietzsche embraces a conception of science that falls between the two dominant interpretations in the literature. Many thinkers in the continental tradition claim that Nietzsche believes science should be either reconceived or overcome altogether by another discourse, such as art, because it is nihilistic. They maintain that Nietzsche regards science as nihilistic because it either presumes that the world is some way it is not or functions on the erroneous assumption that truth rather than art is best for humanity. By contrast, most analytic commentators contend that Nietzsche has a positive rather than nihilistic conception of science, so he does not hold that the discipline should be either reinterpreted or superseded. They claim that for Nietzsche science represents the way the world is and uncovers truths that are important for humankind. I argue for the middle position that Nietzsche has a positive conception of science, scientific constructivism, which he develops in response to nihilistic conceptions of science, particularly scientific realism. Scientific constructivism helps overcome nihilism because it correctly captures the nature of scientific investigation. Affirming constructivism thus allows inquirers to commit to the scientific project without deceiving themselves about the nature of the objects of inquiry.
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There is a genuine puzzle over how to understand Nietzsche’s conception of science. Dominant interpretations form two opposing views. One approach argues that Nietzsche has a negative opinion of the scientific discipline, and the other that he has a positive view. My claim is that Nietzsche embraces a conception of science between these two positions; namely, that he has a positive conception that responds to worries about conceptions he regards as negative. Before examining various reasons for holding each of the dominant views, it is important briefly to discuss which of Nietzsche’s writings discuss science, the context in which he discusses science, and major interpretive questions concerning Nietzsche’s conception of science.

‘Science’ is a translation of ‘Wissenschaft’, which refers to any critical discipline that involves systematic teaching and research, including the humanities and natural sciences. Nietzsche talks about science in all publications, all unpublished essays, and consistently throughout his early to late notes. There are two ways to distinguish the writings on science that I focus on in this project. First, I primarily pay attention to Nietzsche’s thoughts after the publication of The Birth of Tragedy (1872), beginning with Human, all too Human (1878) and continuing through subsequent works. In BT Nietzsche attacks science as a defective means for understanding the true nature of reality, whereas, I argue below, from HH onward Nietzsche abandons this commitment. Hence Nietzsche’s conception of science in BT is not his considered position. The second way to distinguish the writings I emphasize concerns the difference between science as a practice and scientific theory. Some of Nietzsche’s passages target science as a practical discipline, that is, the lives, motives, and affirmations of scientific inquirers. Other
passages target the theoretical dimension of science, that is, the ontological, epistemological, and semantic assumptions and implications of scientific ways of thinking. Major places where Nietzsche discusses the practical dimension of science include the first part of *Human, all too Human* (“Of First and Last Things”), the fourth part of *Thus Spoke Zarathustra*, and the sixth part of *Beyond Good and Evil* (“We Scholars [Wir Gelehrten]”). A reoccurring theme in these passages is that scientific inquirers often fail to have the necessary qualities of character for diagnosing and treating major problems for humanity – specifically the lack of positive ideals and the advent of nihilism. Nietzsche proposes that we should instead try to cultivate a new type of philosopher for such guidance.

These sorts of practical issues do not concern me in this project. I am interested in Nietzsche’s conception of the theoretical dimensions of science. Discussions of these issues primarily occur in the first part of *Human, all too Human* (“Of First and Last Things”); all five books of *The Gay Science* (books 1-4: 1882; book 5: 1887); the first two parts of *Beyond Good and Evil* (1886) (“On the Prejudices of Philosophers,” “The Free Spirit”); the 1886 preface to *The Birth of Tragedy* (“Attempt at a Self-Criticism”); the third essay of *On the Genealogy of Morals* (1887) (“What is the Meaning of Ascetic Ideals?”); the third, fourth, and sixth parts of *Twilight of the Idols* (1889) (“‘Reason’ in Philosophy,” “How the ‘Real World’ Finally Became a Fable,” “The Four Great Errors”); and many of Nietzsche’s late notebook entries. I address the overall relations between the positions presented in these works later in the chapter. Having a proper understanding of the motivations behind the two dominant views of Nietzsche’s conception of science, however, requires making some general comments on Nietzsche’s understanding of the relation between science, art, and nihilism.

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Nietzsche’s view of science generally unfolds as follows. In BT he argues that art, not science, provides the best means for grasping the true nature of reality. Thus, in BT he has a generally negative attitude toward the discipline. In HH, however, Nietzsche abandons this position and gives high praise to science for its ability to understand reality better than any other discourse. This positive attitude continues through the first publication of GS (Books 1-4) and BGE. But in the third essay of GM – arguably the most controversial essay in Nietzsche’s corpus – Nietzsche effectively claims that science is nihilistic. He supports this view by citing passages from the fifth book of GS, which is added in 1886, as well as the 1886 preface to BT. Nietzsche appears to return to having a negative view of the scientific discipline. Yet there is little evidence that he considers science to be nihilistic in works published after GM (despite lingering skepticism in the notebooks). In TI, for example, he echoes his position from HH that science is the means by which we grasp the true nature of reality.

How are we to understand Nietzsche’s conception of science? Overall, does he have a positive or negative view of the discipline? If he has a positive view, how do we explain his attack on science in GM? And what might it mean to say science can deliver the true nature of reality? If he has a negative view, how do we treat his reverence for science in pre- and post-GM works? And what does it mean to say science is nihilistic? Perhaps Nietzsche does not have an overall positive or negative view of the scientific discipline. Does he simply alternate between opposing attitudes throughout his corpus? Or it could be the case that Nietzsche has both a positive and negative view. If so, then what does the divide consist in, and are these attitudes compatible?

This chapter examines the positive and negative readings of Nietzsche’s conception of science, raises problems for each, and suggests Nietzsche has both a positive and negative view –
a positive conception that responds to those that are negative. Later, I consider and discard the interpretation that Nietzsche’s attitude toward science simply changes from one work to the next.

1.1 TWO APPROACHES

The two dominant readings of Nietzsche’s conception of science can be specified as follows. Call the Skeptical View the position that Nietzsche thinks science should be either reconceived or superseded by another discourse, such as art, because it is nihilistic. Call the Positive View the opposing position that Nietzsche does not think science is nihilistic, so it should neither be reinterpreted nor overcome.¹ This section briefly describes these readings by presenting two prominent reasons each gives for supporting their view.²


¹ The Positive View allows for the fact that Nietzsche has certain critical reservations about the discipline, for example, that science’s primary engagement with quantifiable phenomena is of limited value in contrast to philosophical tasks such as the creation of values. See, e.g., PTAG 3; BGE 207; Schacht (1983): 94; Green (2002): 5-8; Leiter (2002): 21-22.

² There are also commentators who claim that in some form or another Nietzsche is committed to both the Positive and Skeptical Views at the same time, e.g. Nehamas (1985), Poellner (1995), Cox (1999), Acampora (2004). My account will be closest to these. Another reading holds that Nietzsche was committed to different views of science in different times of his writing career. I look at this as a possible challenge to my reading below.

³ What holds for Clark and Leiter usually holds for the other thinkers, though I note when they diverge. No one who diverges, though, disagrees with the Positive View’s thesis as I have presented it.
In *Nietzsche on Truth and Philosophy* (1990), Clark offers a developmental reading of Nietzsche, which Leiter later endorses (see Leiter 2002: 14-17). She holds that between the publication of *Beyond Good and Evil* (1886) and *On the Genealogy of Morality* (1887) Nietzsche comes to reject his commitment to the position that all our beliefs are false because he abandons commitment to the metaphysical correspondence theory of truth. According to that theory of truth, we cannot know anything about the objects of the world that give rise to our perceptual states. Once Nietzsche rejects the metaphysical theory of truth, Clark argues, he comes to believe we can have true beliefs about the world and believes science is the best means by which we do so (1990: 31, 107, 121, 136-137). According to Clark, Nietzsche “[exhibits] a uniform and unambiguous respect for facts, the senses, and science” (ibid, 105). Leiter cites this passage in Clark in agreement and remarks that Nietzsche endorses the “scientific perspective as the correct or true one” (Leiter 2002: 21-22). It should be clear that neither Clark nor Leiter think the mature Nietzsche is at all skeptical of the scientific discipline.

A major reason in favor of holding the Positive View is that both Nietzsche and the scientific discipline endorse epistemological empiricism, the thesis that knowledge claims require empirical justification. Nietzsche asserts that “all evidence of truth comes only from the senses” (BGE 134), and “we possess science nowadays precisely to the extent that we decided to accept the evidence of the senses” (TI “Reason” 3). For Nietzsche there is an epistemically privileged class of claims about the world – those based on sense experience – and he believes

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4 See, e.g., Clark (1998). It is controversial whether or not Nietzsche held some version of a semantic empiricism, the thesis that concepts derive their legitimate content from experience and so are meaningless if they cannot be traced back to sensations (see Clark 1998: 53; Anderson 2002). And it is generally accepted that he did not hold an ontological empiricist view, the thesis that all that exists are sensations. For more transcendentally-inclined interpretations of Nietzsche, however, see Green (2002); Hans-Pile (2009).
science exemplifies this commitment. Thus, Nietzsche’s epistemological empiricism provides reason to think he has a positive view of science.

Supporters of the Positive View often cite Nietzsche’s epistemological empiricism as offering support for a naturalist reading of his philosophy, and a commitment to naturalism seems to suggest a commitment to a positive conception of science. Now, there are many forms of naturalism, and understanding Nietzsche’s naturalism is controversial. He at least seems to embrace what I call the General Naturalist View, the thesis that philosophical explanations should be like scientific explanations by avoiding appeal to posits beyond experience. Joseph Rouse aptly characterizes this when he remarks, “The Nietzschean naturalist commitment is not to countenance philosophical appeal to any ‘super-natural’ principles, structures, relations or grounds” (2002: 303). It is generally uncontroversial that Nietzsche embraces the General Naturalist View (see, e.g., GS 109; BGE 230). However, there are at least two versions of the General Naturalist View in the literature, and it is a matter of debate which one Nietzsche favors. Call the Moderate Naturalist View the thesis that Nietzsche is committed to the General Naturalist View but not to the further idea that philosophy should always be continuous with the methods or results of the sciences (see Schacht 1995: 187-205; 2012). Schacht, for instance, argues that Nietzsche’s naturalism is an attempt to provide various sorts of explanations – some more scientific, some more imaginative than others – to make sense of the multifarious processes of the imminent world without appeal to otherworldly posits (2012). On the Moderate Naturalist View, naturalistic explanations need not be those associated with the natural sciences – for instance, they may be more genealogical or historical. By contrast, call the Strong Naturalist View the thesis that Nietzsche is committed to the General Naturalist View as well as the view that philosophy should be continuous with the methods or results of the sciences (see Leiter
2002; Clark and Dudrick 2006). On this reading, naturalistic explanations are scientific explanations, and a scientific explanation is one sanctioned by the accepted sciences. Whether Nietzsche embraces the Moderate or Strong Naturalist View is a matter of debate, but his commitment to the General Naturalist View is enough to indicate that he has a positive view of the scientific discipline.

The Skeptical View stands in direct opposition to the Positive View. Those who believe Nietzsche is skeptical of the scientific discipline are mainly Continental thinkers, such as Jean Granier (1969), Sarah Kofman (1972); Martin Heidegger (1979; 1982); Gilles Deleuze (1983), Babbette E. Babich (1994; 1999; 2006); Maurice Blanchot (1995), Paul Valadier (1999), and Rebecca Bamford (2005). I use Heidegger and Deleuze’s influential positions as examples of the Skeptical View.⁵

In the first volume of Nietzsche (1979), Heidegger claims that for Nietzsche art is worth more than truth, or what Heidegger interchangeably refers to as “science” or “knowing as such,” because art, but not truth, helps counter nihilism (ibid, 219). Call this the Art Over Truth View. There are two prominent versions of this position. Each version agrees that Nietzsche thinks only art can provide the antidote for nihilism, but they disagree about how to conceive Nietzsche’s understanding of the relation between art and truth. One version holds that for Nietzsche art alone has the potential to overcome nihilism because truth is inherently nihilistic (see Heidegger 1979: Vol. 1). Truth should be subordinate to artistic discourse, at least in the context of overcoming nihilism. Call this the Moderate Art Over Truth View. On this reading,

⁵ There are both theoretical and practical reasons that motivate the Skeptical View, and I am only concerned with the theoretical. Some practical reasons for thinking science is nihilistic involve thinking that the cultural practice of science contributes to the diminution of human reality, e.g. by providing a refuge for weak types or promoting a resentful and exploitative view of nature (see Babich 1994: 175-213), or that science fails to support the growth of higher culture (Cohen 2010: 25-41). The theoretical side has to do with the conception of science at work in the scientific discipline, rather than any particular practical misgivings.
while there is reason to think that for Nietzsche truth is inferior to art, there is no reason to believe that he rejects truth altogether. An alternative interpretation of the Art Over Truth View claims that Nietzsche does indeed reject the existence of truth (see Granier 1969: 80; Babich 1994, 1999; Stack 1994). On this reading, Nietzsche holds that truth should not merely be subordinate to art, but that an aesthetic appreciation of the world should have a uniformly privileged role over all other modes of evaluation.\(^6\) Call this the Strong Art Over Truth View. I argue below that Nietzsche does not embrace the Strong Art Over Truth View. However, it is important to consider the Moderate Art Over Truth View in greater detail.

Heidegger endorses the Moderate Art Over Truth View. He first makes a distinction between *guiding* and *grounding* questions concerning the study of Nietzsche. The guiding question is “What are beings?” and the grounding question is “What is Being?” The guiding question is meant to investigate beings that are able to ask about the question of Being. The guiding question asks about “What truth is” while the grounding question poses the deeper question about “What Being in truth is” (ibid, 68). Each question is intended to reveal a different but related aspect of Nietzsche’s conception of truth.

According to Heidegger, Nietzsche conceives both Being and beings as will to power (1979: 59-66). The idea that Being is will to power is the ontological position that all reality consists in unstable bundles of forces. Bundles of forces are *unstable* because each force has a unique telic aim, or “perspective,” which continuously attempts to overcome other forces’ perspectives. Nietzsche proclaims that the world conceived as will to power is “eternally changing” (WP 1067). Beings themselves are will to power by virtue of the fact that they

\(^6\) Cox comes to the same basic conclusion that for Nietzsche the artistic discourse should overcome the scientific discourse, but he disagrees with this view’s reasons for coming to this conclusion (see Cox 1999: 63-68).
participate in the activity of self-enhancement and self-overcoming. Will to power animates beings toward such activity.

On Heidegger’s reading, Nietzsche regards *truths* as artificially fixed perspectives established in order to facilitate survival within a ceaselessly changing environment. One aspect of the answer to the guiding question, then, is that truth is an artificially fixed perspective. Heidegger claims that for Nietzsche the goal of merely preserving life through procuring truths leads to “general debility and ultimate collapse,” or *nihilism* (1979: 75). Truths are nihilistic because they aim to capture structures that are fundamentally in conflict within the continuously changing world.

In contrast to truth, Heidegger claims that for Nietzsche *art* refers to the *transfiguration*, rather than *fixation*, of perspectives (ibid, 67-76). Artistic discourse opens a space for beings to grasp the transformative character of the world, or the world conceived as will to power.⁷ Art reveals Being to beings as a process of self-enhancement and self-overcoming. Artistic discourse therefore orients beings toward answering the more important grounding question. For this reason, truths must be subordinated to the truth of Being revealed by art (ibid, 69-76; 211-220). Truth leads to nihilistic stagnation, whereas art opposes such tendencies. On Heidegger’s reading, then, Nietzsche’s concern with overcoming nihilism indicates that he is skeptical of the scientific discipline.⁸

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⁷ Porter (2006): 551 criticizes the fact that Nietzsche connects the will to power ontology with life-affirmation. It seems strange to Porter to “affirm” the fundamental level of reality. Heidegger’s reading, however, appears to account for how one might be able to do so.

⁸ His considered view is that Nietzsche should have reconceived the discipline in relation to art. Although he thinks Nietzsche was aware of this task, his contention is that he never followed through on it. Heidegger’s view on the matter is that Nietzsche thinks we should “estimate [science] according to its creative force” (1979: 220), which Heidegger claims follows from Nietzsche’s statement in BT that we should view science from the perspective of the artist (BT P: 4). However, Heidegger’s interpretation of this passage in Nietzsche is unclear, and he offers very little elaboration. Since Heidegger follows the Truth Subordinate Reading, he cannot mean it to be the view that we
Deleuze also supports the Skeptical View. Interestingly, he also appeals to Nietzsche’s understanding of naturalism to defend his approach, just as many recent analytic thinkers. Deleuze claims that according to Nietzsche “science is part of the nihilism of modern thought” because its ultimate goal is to reject differences by seeking the “undifferentiated” (1983: 45).

Understanding how this criticism relates to Nietzsche’s understanding of naturalism requires examining a passage from the third essay of GM. Nietzsche says:

Since Copernicus, man seems to have got himself on an inclined plane – now he is slipping faster and faster away from the center into – what? into nothingness? into a “penetrating sense of his nothingness”? Very well! hasn’t this been the straightest route to – the old ideal? . . . All science . . . has at present the object of dissuading man from his former respect for himself (GM III: 25).

Copernicus replaced the Ptolemaic geocentric or Earth-centered system with the heliocentric or sun-centered system. This change in scientific understanding, which constituted a successful shift in scientific understanding, demoted human beings from a position of centrality in the cosmos. Nietzsche associates science “since Copernicus” with a dangerous “old ideal,” the ascetic ideal. The ascetic ideal is nihilistic because it leads people to posit values that cannot be realized in the conditions of this world (see, e.g., GM III: 11).9 Why is science since Copernicus nihilistic? Nietzsche suggests that there is something essential about our view of being human that is being increasingly lost in the transformation to a new scientific perspective following Copernicus. Science is attempting to provide an understanding of ourselves in a way that results in our “slipping . . . into nothingness,” or, as he says in the Nachlaß, a mere “x” (WP 1).10 The “x” reasonably signals the advance of a naturalist perspective on the world that endeavors to explain human reality as nothing more than the goings on of complex physiological systems in a

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9 This invokes Reginster’s (2006) influential understanding of nihilism, which I defend in Chapter 2.

10 The “x,” he says, is a “nihilistic consequence of contemporary natural science” (WP 1).
physical universe. Deleuze seems to have this conception of naturalism in mind when he claims Nietzsche is worried about science seeking the absolute “undifferentiated.”

The ultimate goal of this naturalistic project is to achieve a third-point perspective on the world, which, if attained, would effectively eradicate any robust notion of the first-person standpoint. And Nietzsche thinks that retaining the first-person perspective is required for maintaining a dignified understanding of human reality. The “nothingness,” he writes, is “dissuading man from his former respect for himself” (GM III: 25). The naturalistic perspective on the world since Copernicus is therefore nihilistic because it is increasingly eliminating the possibility of our developing a healthy relation to our own lives. For Deleuze the advance of this sort of naturalist aim in contemporary science gives Nietzsche a reason to be skeptical of the scientific discipline.

1.2 EXTERNAL PROBLEMS WITH EACH APPROACH

Both the Positive View and Skeptical View capture key elements of Nietzsche’s position. However, each denies the legitimacy of the other. In this section, I maintain that the Positive View fails to account for Nietzsche’s view that science is nihilistic, while the Skeptical View fails to account for Nietzsche’s positive remarks on science. In the following section, I suggest that the best interpretation of Nietzsche’s conception of science is a middle way between these two approaches.

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12 Similar to Heidegger, Deleuze’s considered view is that Nietzsche should have attempted to reconceive science in order to meet growing concerns about nihilism (1983: 75). Specifically, Deleuze believes Nietzsche should have reconceived science as a discipline that also produces a “symptomatology” of the kind of forces that lead to particular views, a “typology” of the kinds of those forces (“active” or “reactive”), and a “genealogy” of the forces as having a history in particular sets of power-relations.
Clark and Leiter argue that in his later work Nietzsche overcomes his early skepticism about truth and science and comes to believe that we can generate truths about the world through scientific means. If Clark and Leiter are right, there would be no reason to take the Skeptical View seriously, since there would be nothing about science that requires rethinking.\textsuperscript{13} I want to suggest instead that Nietzsche is indeed skeptical about science in both his early and late period, and more, that his skepticism about science from early to later years should be read as a coherent story about how he thinks we need to understand science differently given its association with nihilism.\textsuperscript{14} Nevertheless, I submit, taking the skeptical worry seriously does not require adopting at least one version of the Skeptical View – the Art Over Truth View – and it also does not require overcoming science altogether for another discourse.

In the third essay of \textit{On The Genealogy of Morality} (1887), Nietzsche cites the 1886 preface to his first book \textit{The Birth of Tragedy} (1872) – a preface which falls into his so-called \textit{early} period – as the place readers should look to find “science posed as a problem” (GM III: 25). Nietzsche writes, “what I had got hold of at that time was something fearsome and dangerous . . . it was the \textit{problem of science},” but “the problem of science cannot be recognized within the territory of science” (BT P: 2, cf. 15). He suggests the solution is to somehow “\textit{view science through the lens of the artist, and view art through the lens of life}” (ibid.). A similar worry and a similar solution emerge in GM. Nietzsche comments that science “\textit{requires justification}” from an outside source (GM III: 24). Science needs “an ideal of value, a value-

\textsuperscript{13} Commentators have argued that Clark and Leiter’s developmental position is not supported by uncontroversial textual evidence – in particular because there are passages in his later work that suggest that Nietzsche remains committed to a falsification thesis that Clark and Leiter claim Nietzsche abandons (e.g., Anderson 1996; Cox 1999; Poellner 1995; Green 2002). I take up the issue of whether or not Nietzsche is committed to a falsification thesis in the fifth chapter. Notice that these criticisms of Clark and Leiter, however, do not make it the case that Nietzsche is skeptical of the scientific discipline.

\textsuperscript{14} The reasons I give for Nietzsche’s skepticism toward science in view of nihilism will be different from those discussed above. This comes out explicitly in Chapter 2.
creating power, in the service of which it could believe in itself” (GM III: 25). Science finds “an ideal of value” in what Nietzsche calls the “ascetic ideal” (GM III: 25). The ascetic ideal is nihilistic because it leads people to will “nothingness” (GM III: 28). Finally, Nietzsche remarks that “art,” rather than “science,” is “much more fundamentally opposed to the ascetic ideal” (GM III: 25).

The claims in GM are not only consistent with those in BT, but also fill out Nietzsche’s earlier concerns. Taken together the following account emerges. In GM Nietzsche claims that the 1886 preface of BT is the place to find what he considers to be at least one major problem with science, which is presumably one major problem identified in the third essay of GM. In the preface of BT, he says the problem cannot be understood from within the scientific discipline itself. In GM he reiterates that science requires justification from an outside ideal, and adds that science gains justification from the nihilistic ascetic ideal. The conjunction of the two stories told in BT and GM suggest that according to Nietzsche the ideal informing scientific practice is nihilistic. Hence for Nietzsche a major problem of science is that it is nihilistic.

Both GM and BT also gesture toward art to help resolve the problem.15 For Nietzsche something about artistic discourse is crucial for providing a countermovement to nihilism. He regards “art as the only superior counterforce to all will to denial of life,” as that which is “anti-nihilist par excellence” (WP 853, see also 1, 2, 12; GM II: 24; BGE 211; many passages in Z I, III). In GM Nietzsche maintains that art has the capability of opposing the nihilistic ascetic ideal more than science. He says in the notes that he regards art as “the redemption of the man of

15 To be sure, note that the conception of art in the preface to BT is importantly different from that in the original BT text. In later years, Nietzsche abandons BT’s central claim that art provides us with nothing but illusions for dealing with the hardships of the world. So the conception of art that Nietzsche thinks should conjoin with science is not art as mere illusion. Chapter 6 will discuss exactly which conception of art Nietzsche thinks is relevant for opposing nihilism.
Thus, the resolution to the problem of science seems to require viewing science from the standpoint of art.

It cannot be denied that in certain respects Nietzsche is skeptical of the scientific discipline. He believes it should be understood from the perspective of art in order to oppose nihilism. This does not imply that Nietzsche thinks science should be overcome altogether by artistic discourse. It also neither entails the Strong Art Over Truth View, according to which Nietzsche’s skeptical attitude toward science involves seeking non-existent truths, nor the Moderate Art Over Truth View, according to which Nietzsche thinks truth is inferior to the artistic discourse because truth is inherently nihilistic. Nietzsche’s concern is that in some sense overcoming the nihilistic ideal that informs science requires reassessing science from the perspective of art.

These considerations reveal problems with the Positive View. Neither Clark nor Leiter think Nietzsche is skeptical about the grounds on which the scientific discipline is understood. Now, Clark does understand that Nietzsche believes science requires “a new ideal” which is “life-affirming” (1990: 199). Unfortunately, she never explains how the scientific enterprise is supposed to fall under this new ideal. She offers a promissory note to come back to this issue she fails to keep (ibid, 200). Nonetheless, there is reason to think that had Clark returned to this issue she would have concluded that for Nietzsche science requires no reassessing. First, she claims that the new ideal is the eternal recurrence, and Clark limits the conditions of the possibility of willing eternal recurrence to individual agents rather than wholesale institutions.

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16 Both BT and GM also discuss the possibility of combining a certain kind of theoretical type of orientation toward the world with a particular type of artistic orientation, with the possibility that the right sort of combination could enhance our traditional conception of science (BT 15; GM III: 25).

17 For more on the connection between science and nihilism from early to late see BT P: 2, 14, 15; HH I: 16, 21; GS 344, 373; GM III: 27; TI “Reason” 6, “Raids” 37; WP 1, 12, 53, 63, 68, 69, 580, 608

18 Note that this is a theoretical concern that in no way implies that Nietzsche thinks we should stop doing science at a practical level.
such as science (ibid, 270). Second, Clark has written additional material about Nietzsche’s relation to science without indicating that he wanted to rethink the discipline in any way (see Clark 1998, 2001; Clark and Dudrick 2006). This is problematic. For example, below I challenge her assumption that Nietzsche simply adopts a traditional conception of scientific explanation. Clark never attempts to understand how Nietzsche might envision the scientific project through a different perspective.

Unlike Clark, Leiter initially dismisses Nietzsche’s skepticism about science (2002: 21-22). He later recognizes that GM III: 25 threatens his naturalist reading because, assuming a naturalist explanation is just a scientific one, the essay seems to claim that naturalism is subsumed by the ascetic ideal (ibid, 281). Leiter’s solution is to deny that Nietzsche thinks science is ascetic on the grounds that Nietzsche has a fundamental commitment to naturalism, which is non-ascetic because it helps improve humanity (ibid, 282-283). According to Leiter science finds a justifying ideal outside the ascetic ideal, and that ideal is naturalism itself. Thus, naturalism is in the service of a non-ascetic ideal.

A primary reason this reading is problematic is that Leiter ignores Nietzsche’s remark in GM III: 25 that art is a better means for countering the ascetic ideal than science. Moreover, nowhere in the third essay of GM does Nietzsche claim that his own naturalistic interpretations stand in opposition to the ascetic ideal. In fact, he even appears to implicate his own claims as being subsumed by that ideal (see GM P: 1, III: 24). If so, Leiter cannot appeal to Nietzsche’s naturalism itself as offering an alternative to the ascetic ideal. In addition, Leiter overlooks the possibility that Nietzsche’s naturalism might be non-ascetic because Nietzsche reassesses

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19 In an interesting contrast to this, Babich argues that the conception of science itself can undergo the test but fails because of its fundamentally nihilistic, exploitative nature (see Babich 1994:261-298).

20 This criticism does not apply to Clark since Nietzsche later announces that Zarathustra offers a counter-ideal to asceticism (see EH III: GM).
naturalistic explanations from the perspective of art. Below, for example, I attempt to describe an “artistic” way to understand Nietzsche’s naturalism which opposes Leiter’s reading. This will provide reason to think that Nietzsche is indeed skeptical of the conception of science to which naturalism attaches.

In sum, there are good reasons to take the Skeptical View seriously that the Positive View does not take into account. However, the Skeptical View also faces difficulties. Nietzsche says commendable things about the scientific discipline both during and after he condemns science as nihilistic in GM (1887). Consider the following passages from 1887-1888. In GM Nietzsche discusses “there being so much useful work to be done” in science, and adds that he “delights in [the honest scientist’s] work” (GM III: 23). In Twilight of the Idols (1888), he asserts that “we posses science nowadays precisely to the extent that we decided to accept the evidence of the senses,” and suggests disciplines such as “metaphysics” and “theology” are “not-yet-science” because they produce claims that are not empirically verifiable (TI “Reason” 3). There is no mention of science being nihilistic in TI. Nietzsche even seems to regard science as the arbiter of what is worth believing in that work. In addition, in The Antichrist (1888) Nietzsche regards science as the discipline that liberates us from erroneous religious and metaphysical positions (A 15), the means by which we gain a “sound conception of cause and effect” in relation to flawed metaphysical views (A 49), and even as “the wisdom of the world” (A 47). These passages do not necessarily support the Positive View\(^\text{21}\), but adherents to the Skeptical View must admit that they threaten their reading.

\(^{21}\) For example, Nietzsche claims that science is the means by which we gain a “sound conception of cause and effect” (A 49), but he is simply contrasting science with untenable religious views. Within that space of contrast Nietzsche need not also be committed to the Positive View. I claim below that Nietzsche has a positive conception of cause and effect that is not what the Positive View attributes to him.
The Skeptical View could respond by trying to accommodate these remarks. The passages may provide evidence against the skeptical line of reasoning that Nietzsche thinks science should be *overcome* by another discourse, but they do not show that Nietzsche did not think science should be reassessed from the vantage point of another discourse, nor do they show that if science is reassessed in this manner, that reassessment would be a consequence of the influence of impending nihilism. Someone partial to the Positive View might say that Nietzsche’s praise in the third essay of GM does in fact show that Nietzsche has no intention of reassessing the discipline— in fact, that essay is the very place he condemns science as ascetic (see Leiter 2001: 21-22)! Yet the primary passage used to support this response—Nietzsche’s claim that there “so much useful work to be done” in science (GM III: 23)—only targets the practical dimension of science, not the theoretical grounds on which science is understood. Hence the Skeptical View’s accommodation strategy is a fair response. The substance of this strategy is also consistent with my own reading that Nietzsche wants us to think about science differently.

1.3 A MIDDLE WAY

It should be clear that both approaches demand to be taken seriously. It also seems Nietzsche thinks there is a positive view of science that is consistent with his skepticism. My project presents a middle way between these approaches. I retain the idea that Nietzsche has a positive conception of science but argue that he embraces this conception in response to worries about nihilistic presuppositions in certain conceptions of science. I suggest Nietzsche *reconceives* science on *constructivist* grounds to help answer the crisis of coming nihilism. Scientific constructivism is broadly the thesis that all facts are socially constructed.
The Positive View and Skeptical View agree that Nietzsche does not have a constructivist conception of science. They disagree about whether Nietzsche thinks science so conceived is nihilistic. The Skeptical View believes a non-constructivist conception of science is nihilistic, while Positive View contends that a non-constructivist conception of science is not nihilistic. In some form, both views can be accepted once it is clear which conception of science Nietzsche endorses. I take the Skeptical View to be correct that for Nietzsche a non-constructivist conception of science is nihilistic. However, I disagree with the Skeptical View’s position that Nietzsche’s response to the worry that non-constructivist conceptions of science are nihilistic requires demoting the scientific discourse altogether. My view is that overcoming nihilistic conceptions of science only requires reconceiving science as constructivist. For this reason, the Positive View is incorrect to hold that a non-constructivist conception of science is not nihilistic – though this position is compatible with the Positive View’s claim that Nietzsche has a positive view of science.

The dissertation attempts to understand Nietzsche’s central philosophical ideas, that is, nihilism (Chapter 2), will to power (Chapter 3), and perspectivism (Chapters 4, 5), in relation to scientific constructivism. Specifially, scientific constructivism is the thesis that all scientific facts we can grasp in principle are essentially dependent on our scientific representations.

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22 I follow recent literature in thinking that will to power is Nietzsche’s considered ontological position, that perspectivism is crucial for understanding his epistemology, and that a primary goal of his philosophy is to respond to the problem of nihilism. For those who take seriously the connection between ontology and will to power see Schacht (2000); Hales and Welshon (2000). For those who take the methodological position of viewing Nietzsche’s philosophy as responding to nihilism see Heidegger (1979, 1982); Danto (1965); Reginster (2006). My approach to epistemological perspectivism is rampant throughout the secondary literature. For a comprehensive list see Cox (1999): n16, 17; for a notable exception to this see Janaway (2009): 223-244.

23 Boghossian’s “Description Dependence of Facts” captures the gist of the view I attribute to Nietzsche: “Necessarily, all facts are description dependent: there cannot be a fact of the matter as to how things are with the world independently of our propensity to describe the world as being a certain way. Once we adopt a particular scheme for describing the world, then there come to be facts about the world” (2006: 28). This seems to be consistent with Kukla’s conception of “strong constructivism” as the thesis that “all the facts we can ever possess are constructed” (2000: 25). See also Goodman (1978).
aim to show that Nietzsche thinks commitment to scientific constructivism enables a uniquely artistic way to overcome nihilistic conceptions of science. That is, I maintain that for Nietzsche scientific constructivism is “life-affirming.”

The following chapter begins to examine Nietzsche’s understanding of a life-affirming conception of science. However, it will be helpful to outline the two main criteria that must be met for a conception of science to be life-affirming. The primary negative criterion is that a life-affirming conception of science cannot embrace any ontological, semantic, and epistemological criteria for what our best scientific theories should count as real, true, or knowledge if those criteria conflict with the way things are with the world and our grasp of it. The primary positive criterion is that a life-affirming conception of science is a conception of science understood from the perspective of art. Understanding science from the perspective of art, I suggest, contributes to overcoming nihilism by enhancing what Richard Rorty calls humanity’s “self-image” (1999).

A life-affirming conception of science gives us an image of ourselves as doing inquiry within time and history and normatively. Practicing science within time and history involves rejecting the traditional assumption that scientific representations represent the way the world is apart from all representation, and instead accepting that scientific representations can only be compared to other representations, past or present. Engaging in science normatively involves accepting that a proper understanding of target phenomena in scientific discourse requires reference to our judgments about target phenomena.\(^{24}\) Consider Pluto’s demotion from planet to dwarf planet as an example. A constructivist would argue that Pluto’s demotion does not fundamentally reflect the discovery of the intrinsic properties that make Pluto a dwarf planet, but rather it reflects a change in considered judgment by those who establish what constitutes the

\(^{24}\) This makes no commitments to particular types or varieties of what constitutes a reason. I mean ‘judgment’ to refer to reason in the broadest sense of the term.
relevant description of the conditions under which something counts as a planet. The dissertation hopes to show that for Nietzsche scientific constructivism provides us with a self-image and that aids in overcoming nihilism.

Reassessing our preferred conception of science has broadly ethical consequences. The dissertation therefore begins to bridge the unfortunate gap that has emerged in secondary literature between Nietzsche’s conception of science and his ethics. As I have suggested, many commentators isolate Nietzsche’s view of science from nihilism, the latter of which is often taken to have primarily ethical dimensions. Those who work on Nietzsche’s ethics tend to support this separation. They claim that Nietzsche mostly targets issues of value rather than truth. Deleuze (1983), for example, appeals to the methodological principle that Nietzsche is more concerned with a belief’s life-denying or life-affirming status rather than its epistemic status. Bernard Reginster (2006) believes this reveals Nietzsche’s basic project: triumphing over nihilism by revaluing life-denying beliefs.

There is a difficulty with the separation, however. Nietzsche asserts that belief in a Kantian-Platonic “true world of being” is nihilistic (see, e.g., WP 12) and affects our scientific worldview (see, e.g., GS 344). If so, then reassessing positions that affirm features essentially associated with a “true world of being” seems to be a necessary condition for overcoming nihilism. I claim that according to Nietzsche reassessing science’s relation to a “true world of being” on artistic grounds can aid in making our lives more meaningful. By bringing together Nietzsche’s concerns about both science and ethics, this dissertation attempts to provide a better understanding of his philosophical project as a whole.

26 See Deleuze (1983); Gemes (2001); Reginster (2006).
1.4 INTERNAL PROBLEMS WITH EACH APPROACH

This section begins to conjoin the Positive and Skeptical Views and attempts to show substantively how my account differs from both. I aim to challenge each position’s reading of Nietzsche’s naturalism by examining a passage that provides evidence for my own view of Nietzsche’s conception of science.

Before continuing, I want briefly to comment on the reasons for supporting each dominant view that I will not be discussing. These include the Positive View’s claim that Nietzsche is committed to epistemological empiricism and the Skeptical View’s claim that Nietzsche rejects the existence of truth. I simply agree with the Positive View that Nietzsche endorses epistemological empiricism, and I agree that such a commitment is central to his support of the scientific enterprise. As a consequence, I do not support the Strong Art Over Truth View that Nietzsche denies truth. Many commentators have argued convincingly that Nietzsche thinks we can have true beliefs about the world. Moreover, there are a number of passages where Nietzsche explicitly talks about the existence of truth (e.g., D 45; BGE 154; GM I: 1; A P, 9, 23), calls certain views false in relation to his own views (e.g., BGE 186; A 4, 24), claims knowledge exists (e.g., HH II: 23; Z I: “On the Gift Giving Virtue”; A 48; EH: BT 2), and casts his own project as engaged in contributing to the project of gaining knowledge (e.g., HH II: 23; GS 14, 242, 249, 280, 324, 343; GM: P). In a memorable notebook passage he even remarks:

27 See Schacht (1983, 1995, forthcoming); Clark (1990); Leiter (1994, 2002); Poellner (1995); Anderson (1998); Cox (1999); Hales and Welshon (2000); Doyle (2009); Cohen (2010). One challenge I take up in Chapter 5 is showing how Nietzsche’s view that there are such thing as true claims relates to a general falsification thesis that is abundant throughout his work, since, along with others (e.g., Anderson 1996; Green 2002; Hussein 2004), I find it hard to agree with Clark that Nietzsche abandoned the falsification thesis in his later work. My aim is to show that for Nietzsche falsification is consistent with there being truths about the world.
The belief that truth does not exist, the nihilists’ belief, is a great stretching of the limbs for someone who, as a warrior of knowledge, is constantly at struggle with so many ugly truths. For the truth is ugly (LN 11[108]).

Nietzsche clearly casts himself as the “warrior of knowledge” against the “nihilists” who deny the existence of truth. In this project, I therefore assume that Nietzsche believes we can make true and false claims about the world. Later chapters argue that Nietzsche only rejects a certain criteria of what constitutes truth claims, not truth altogether.

Many interpreters defend the Positive View because they believe Nietzsche endorses the Strong Naturalist View that philosophy should be continuous with either the methods or results of the sciences. These commentators typically maintain that Nietzsche’s naturalism requires providing causal accounts of phenomena. According to Leiter, for instance, Nietzsche believes naturalistic accounts take over from science the view that phenomena have “deterministic causes” (2002: 5); Green asserts that for Nietzsche naturalism is the demand that “explanations of what human beings do be causal” (2002:4); and Clark and Dudrick contend that on Nietzsche’s account an utterance from a “naturalistic perspective” is one “in terms of causes and effects” (2007: 160). Nonetheless, Clark and Dudrick’s view of Nietzsche’s naturalism differs from others like Leiter’s in important respects. They claim that Nietzsche’s reading of Afrikan Spir led him to a conception of naturalism that responds to a tension between naturalism and normativity (2006, cf. Green 2002). Spir maintains that causes and reasons are ontologically distinct because causes are physical and reasons are normative (1877, vol. 1: 79). Hence Clark and Dudrick contend that Nietzsche embraces the naturalist thesis that “If an empirical explanation of phenomenon is possible, that explanation is to be preferred to an explanation of

28 Schacht (1995, 2012) is the exception. I side with his view at the end of the chapter.
29 In what follows, I do not focus on challenging Leiter’s influential but controversial view of Nietzsche’s naturalism. Others have already done so – in particular Gemes and Janaway (2005), Schacht (2012).
another kind” (2006: 163). “Empirical explanation” means “causal scientific explanation.” The conditional form of the thesis allows Nietzsche to maintain that there are explanations of some phenomena that should not be understood in terms of causality – namely, human activities. Clark and Dudrick contend that Nietzsche thinks human behavior can only be properly understood within the context of a space of reasons. Thus, for Clark and Dudrick a proper understanding of Nietzsche’s naturalism requires separating the causal from the normative.

Clark and Dudrick never attempt to understand Nietzsche’s own conception of causality – and he discusses this topic often. One must assume that Clark and Dudrick take causality to refer to whatever the sciences of Nietzsche’s day accept. Clark famously argues that Nietzsche matures into being a “common sense realist” (see Clark 1990: 31; see also Leiter 2002: 15-22, 271-279). A common sense realist is in part one who accepts that science provides knowledge of a world ontologically independent of our representations of it (Clark 1990: 40, 45, 103-105; see also Leiter 1994: 350; 2002: 22-23, 264-279). For Clark ontological independence implies constitutive independence. So, embracing common sense realism entails commitment to the position that causal relations exist constitutively independent of human interpretation. Clark and Dudrick appear to believe this conception of causality informs Nietzsche’s naturalism.30 There is also good reason to think many Positive View supporters attribute this conception of causality to Nietzsche, since the idea that empirical phenomena are constitutively independent of us is common within the Positive View camp.31

I contend that Nietzsche embraces a constructivist conception of causality, which, I hope to show later in the project, is an instance of his commitment to scientific constructivism. I also

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30 I see no difference in Clark’s early treatment of causality (1990: 103-105) and her later view of causality when working with Dudrick.
maintain that Nietzsche’s constructivist conception of causality is partly developed in response to Deleuze’s worry that naturalism may eradicate the first-person perspective. Clark and Dudrick appear to retain space for the first-person perspective by isolating the normative domain of judgment from the empirical domain of causes. I argue below that this is not sufficient because for Nietzsche a proper causal explanation requires reference to our judgments about causal phenomena. It will emerge that this is primarily a consequence of Nietzsche’s endorsement of scientific constructivism.

A key passage concerning Nietzsche’s conception of causality is GS 112:

*Cause and Effect.* – We call it ‘explanation’ [Erklärung], but ‘description’ [Beschreibung] is what distinguishes us from older stages of knowledge and science. We are better at describing – we explain just as little as our predecessors. We have uncovered a diverse succession where the naïve man and investigator of older cultures saw only two different things, ‘cause’ and ‘effect’ … The series of ‘causes’ faces us much more completely in each case; we reason, ‘this and that must precede for that to follow’ – but we haven’t thereby understood anything. The specifically qualitative aspect for every chemical process still appears to be a ‘miracle’, as does every locomotion; no one has ‘explained’ the push. And how could we explain! We are operating only with things that do not exist – with lines, surfaces, bodies, atoms, divisible times, divisible spaces [Wir operiren mit lauter Dingen, die es nicht giebt, mit Linien, Flächen, Körpern, Atomen, theilbaren Zeiten, theilbaren Räumen] How is explanation to be at all possible when we first turn everything into a picture – our picture! [wie soll Erklärung auch nur möglich sein, wenn wir Alles erst zum Bilde machen, zu unserem Bilde] It is enough to view science as an attempt to humanize things as faithfully as possible; we learn to describe ourselves more and more precisely as we describe things in their succession [Es ist genug, die Wissenschaft als möglichst getreue Annenschlichung der Dinge zu betrachten, wir lernen immer genauer uns selber beschreiben, indem wir die Dinge und ihr Nacheinander beschreiben]. Cause and effect: there is probably never such a duality; in truth a continuum faces us, from which we isolate a few pieces, just as we always perceive a movement only as isolated points, i.e. do not really see, but infer. The suddenness with which many effects stand out misleads us; it is a suddenness only for us. There is an infinite number of processes that elude us in this second of suddenness. An intellect that saw cause and effect as a continuum, not, as we do, as arbitrary division and dismemberment – that saw the stream of the event – would reject the concept of cause and effect and deny all determinedness [Ein Intellect, der Ursache und Wirkung als continuum, nicht nach unserer Art als willkürliches Zertheil- und Zerstückseine, sähe, der den Fluss des Geschehens sähe, - würde den Begriff Ursache und Wirkung verwerfen und alle Bedingtheit leugnen].
The first point to notice is that Nietzsche associates the project of “explanation” with providing an account of causality in a manner that is constitutively independent of the human interpreter. Science does not “explain” causal relationships because it attempts to remove the human contribution from the account, and Nietzsche thinks the human interpreter is somehow non-trivially necessary for understanding causality.

Nietzsche’s first reason for maintaining that the human interpreter is non-trivially necessary for understanding causal relations is that an adequate understanding of those relations requires the use of ideal objects constructed by agents. Objects such as straight lines (cf. GS 121), geomantic planes (cf. GS 121), or constant magnitudes (HH I: 19) do not exist in the empirical world. They are heuristic idealizations, and as such constitutively dependent on human interpretation. Ideal objects are constructed to help inquirers comprehend various phenomena within a complex universe. Nietzsche seems to think that because understanding causal relations requires the use of ideal objects, which owe their existence to our activities, understanding causality itself is constitutively dependent on our activities.

Nietzsche concludes the first major part of the passage by saying it is “enough” for science to engage in a project of “description” (GS 112). The project of “description” differs from the project of “explanation” in that the former openly embraces the interpreter’s essential

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32 One might object to Nietzsche’s list by contending that material things exist in the empirical world. However, Nietzsche’s criticism of material things relates only to those things considered constitutively independent of our perspectives (see HH I: 11, 19; GS 57, 58; TI “Reason” 2, “Errors” 3, and a multitude of notes).

33 Nietzsche suggests elsewhere that “laws” of nature are actually complex ideal objects as well (see GS 109; LN 2[142], 14[79], 14[98]). An example he might have used is Newton’s theory of motion. Newton’s theory strictly holds of items in the absence of electrical magnetic and other forces, but there are no physical objects completely shielded from these influences.

34 It is almost certain that part of Nietzsche’s view of causality in GS 112 comes directly from Lange, who says “Geometry, with its simple lines, surfaces and bodies, helps us forward, though its lines and surfaces do not occur in nature” (Lange 1875: 899).
role in understanding causality, while the latter denies it. Nietzsche suggests it is “enough” for science to describe phenomena because denying our constitutive relation to notions such as causality would hinder the possibility of doing successful scientific work. Viewing science as an enterprise that traffics in idealizations marks successful science.

In the passage, Nietzsche also proclaims that we gain a greater understanding of ourselves as we understand how it is that we as interpreting agents comprehend causal relations: “we learn to describe ourselves more and more precisely as we describe things in their succession.” The idea seems to be that comprehending causality involves separating out some events as being causes of others from a “continuum” of fundamentally connected activity, and understanding this process requires understanding how a particular event within a plurality is relevant to our interests within the domain of causal explanation.

Putnam (1983) gives an example that helps illustrate the selective process Nietzsche discusses. Putnam claims, as I believe Nietzsche does, that there is no metaphysical fact of the matter about causation in the universe wholly independent of our interpretations of causal events. According to Putnam, when someone says something like “failure to put out the cigarette caused the house to burn down,” they do not mean that the cigarette’s remaining lit was the total or sufficient cause of the house burning down. Many other things – the cigarette’s location, the flammability of the surrounding structure, etc. – are part of the sufficient cause. We regard certain parts of the sufficient cause as “background conditions,” and refer only to the parts of the cause that interest us as “the” cause. Suppose aliens landed on Earth and observed a house burning down. One says, “I know what caused that – the atmosphere on this planet is saturated with oxygen.” The point is that in using causality in an explanatory sense one agent’s

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35 Hales and Welshon (2002: 212n7) make this connection.
“background condition” is another’s “cause,” and what one cites as a “cause” will in part depend on the reason for asking the question. This example aims at capturing our ordinary use of causality, but the context of GS 112 – about “stages of knowledge and science” – indicates that Nietzsche believes scientific work involves a similar selective process (see also BGE 21). Successful scientific work does not operate with sufficient causes because doing so is not conducive to providing useful scientific explanations.

Nietzsche adds that “an intellect that saw cause and effect as a continuum, not, as we do, as arbitrary division and dismemberment – that saw the stream of the event – would reject the concept of cause and effect and deny all determinedness” (GS 112). A different kind of “intellect” than ours could identify the sufficient cause of the house burning down because it could perceive the fundamental connectedness of the events involved.36 This particular form of understanding would no longer involve individuating one event from another, in which case the “intellect” could justifiably deny cause and effect relations. It is implied that grasping causality requires reference to individuated events. Because we are the kind of beings that individuate one event from another, understanding causality requires understanding us as the kind of beings who comprehend causal relations.

Grasping causal relations therefore ultimately involves making reference to us as the type of beings who make judgments about causes and effects. We judge some particular event, and not some other, to be the cause of some further event in part with respect to the degree of

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36 Nietzsche eventually attempts to develop an ontology of fundamentally connected events (will to power) to better explain causal relations (see, e.g., BGE 36). This is consistent with the account given insofar as events within a will to power matrix require bundle individuation in order to useful to explanatory scientific work. I believe bundles need organizing and subjects achieve such organization. That is, I do not follow Richardson (1996), Hales and Wolshon (2000), and Doyle (2009) in thinking bundles of will to power are intrinsically organized. For example, Nietzsche says “that things possess qualities in themselves quite apart from interpretation and subjectivity is a quite idle hypothesis: it presupposes that interpretation and subjectivity are not essential” (WP 560, translation modified cf. GS 57, 58).
relevance the first two events exhibit in relation to our explanatory interests. In his notes Nietzsche reiterates that, “There is no event in itself. What happens is a group of phenomena selected and synthesized by an interpreting being” (LN 1[115]). The substance of what constitutes the individuated events in causal relations depends on our being the types of judging beings we are, or operating in the context of a space of reasons. Understanding causal relationships requires understanding our behavior as reason-giving agents. This best explains why Nietzsche remarks that we learn to “describe ourselves more and more precisely as we describe things in their succession” (GS 112).

In sum, the two important conclusions Nietzsche advances in GS 112 is that comprehending causality requires ideal objects and reference to our reasons for individuating causes and effects. The account indicates that according to Nietzsche causal sequences in scientific explanations would not be what they are in a world independent of human concern. Causality is a phenomenon that must be understood as essentially related to our interpretive activities.

GS 112 is not the only place Nietzsche presents this view. Many detailed notes from 1887-1888 support the same position (see, e.g., LN 9[91], 14[79], 14[98]). Moreover, both conclusions reached in GS 112 are reiterated in BGE 21. Nietzsche explains that “one should use ‘cause’ and ‘effect’ only as pure concepts, that is to say, as conventional fictions for the purpose of designation and communication,” adding “it is we alone who have devised cause,  

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37 This does not entail the consequence that the selective process is either subjective or arbitrary (recall that the “we” in the passage refers to the scientific community). Nietzsche recognizes many criteria which guide us in this process, such as the input from sensations (BGE 154; TI “Reason” 3), certain mathematical presuppositions such as self-identity and equivalence (HAH 11, 19; GS 111, 355; BGE 4, 21; WP 516, 530, 554), the body of accepted beliefs (GS 335; BGE 12, 22), and the epistemic values of conservatism (GS 110, 121), consistency (BGE 13; WP 530), scope (BGE 36), simplicity (HAH 11; 19; BGE 192; WP 503, 515-517, 521), a certain kind of utility (GS 110; BGE 4, 21, WP 493 ff.), and others.
There appears to be good evidence to think Nietzsche endorses a constructivist conception of causality.\textsuperscript{39}

If we take the assessment of causality in GS 112 and similar places seriously there are significant repercussions for understanding Nietzsche’s conception of naturalism and his positive conception of science. First, a proper view of Nietzsche’s positive conception of science that rests on his commitment to naturalism should not follow the Positive View under consideration in holding that Nietzsche thinks causal relations exist as they do constitutively independent of our interests. Nietzsche’s positive conception of science must instead be amenable to a view of naturalism consistent with his constructivist reconception of causality. Second, an adequate conception of Nietzsche’s naturalism should not follow Clark and Dudrick in dividing the empirical domain of causes from the normative domain of judgment. For Nietzsche a proper understanding of causal events depends on a proper understanding of our judgments about those events. Finally, the requirement of having to take our judgments about causality into consideration when understanding causal relations implies that Nietzsche has a positive view of empirical explanation that does not appeal to the attainment of any nihilistic, “view from nowhere” perspective. Nietzsche’s account of causality embraces the first-person standpoint. So, while Nietzsche’s position is incompatible with the Positive View, it is also opposed to the Skeptical View.

\textsuperscript{38} Leiter claims that this passage represents Nietzsche’s rejection of a “skeptical” view of causation because Nietzsche’s remarks only criticize causal relations existing in a noumenal, but not phenomenal, realm (2002: 22-23). If by “skeptical” Leiter means “constructivist,” then his reasoning does not convince me. Nietzsche claims “it is we alone who have devised cause, sequence…” and so on. True, these concepts don’t hold in the noumenal realm, but their existence and applicability in the phenomenal realm is constitutively dependent on human interpretation.\textsuperscript{39} See also Stack’s (1983) interpretation of Nietzsche via the influence of Lange, who argues that Nietzsche holds an instrumental notion of causality similar to my constructivist reading.
In this section, I hope to have put a good amount of distance between my own reading of Nietzsche’s conception of science and the two dominant positions. It is also important to note that Nietzsche’s conception of causality appears to presuppose commitment to scientific constructivism. This project will attempt to show that Nietzsche embraces constructivism in all domains of scientific inquiry.

1.5 METHODOLOGY

It is crucial to consider some methodological issues concerning my project. First, assuming Nietzsche embraces scientific constructivism, what is his conception of naturalism? Second, is attributing to Nietzsche a constructivist conception of science supported by his historical context? Third, how does constructivism figure in the development of Nietzsche’s thoughts on science from early to later works? Last, how do I intend to use Nietzsche’s unpublished writings? Each of these questions could be construed as an objection to my reading, so I will take up and respond to them.

1.5.1 Naturalism

I have already suggested that the relation between Nietzsche’s conception of science and his naturalism is debated in the secondary literature. Since my project aims to retain the view that Nietzsche is a naturalist, while also presenting an account of his positive conception of science at odds with the Positive View, it is imperative to discuss a conception of Nietzsche’s naturalism that supports my reading.

The appropriate response to the failure of the causal accounts of Nietzsche’s naturalism seen above is to widen what counts as a naturalistic explanation. Thus, I take Nietzsche to be
committed to the Moderate Naturalist View rather than the Strong Naturalist View. Schacht most prominently represents the Moderate Naturalist View (see 1995, 2012). Schacht argues that for Nietzsche philosophical explanations should be like scientific explanations by avoiding appeal to realms beyond the possibility of experience, but they need not always be continuous with the methods or results of the natural sciences. Nietzsche does not take any stance as to whether the best naturalistic explanation will be limited to those which are traditionally associated with the natural sciences – and even if this were true, Nietzsche does not claim that naturalistic explanations must be causal explanations of natural phenomena. Schacht’s approach captures nicely what Nietzsche means by ‘Wissenschaft’, which includes such disciplines as the humanities and social sciences in addition to the natural sciences. His conception of Nietzsche’s naturalism also has the flexibility to support my understanding of Nietzsche’s constructivist conception of science in the domain of causality. The Moderate Naturalist View does not assume any explanatory divide between the natural and normative domains, and the dependence relation between them is left open-ended.

40 Viewing Nietzsche's naturalism in this way raises an issue about what counts as a naturalistic explanation and much of Nietzsche’s work shows that he is sensitive to this question. Leiter’s and Clark and Dudrick’s views appear to be closed to the issue. For example, Leiter supports Clark’s assessment that the mature Nietzsche “exhibits a uniform and unambiguous respect for facts, the senses, and science” (Clark 1990: 105; Leiter 2002: 22). For Leiter, this “unambiguous respect” for “science” translates into the claim that philosophy should ascertain deterministic causal explanations of biological phenomena. However, this presupposes an uncritical acceptance of the naturalistic standards within current 19th century natural science. Yet the answer to the question about which explanations are naturalistic cannot simply be those that are scientific. What counts as a proper scientific explanation changes over time. Moreover, the option of questioning any particular scientific development as naturalistic always remains open. In fact, some have convincingly argued that Nietzsche’s will to power hypothesis is a novel attempt to provide a fundamentally naturalistic explanation of worldly phenomenon in order to replace non-naturalistic explanations (see, e.g., Cox 1999).
1.5.2 Constructivism in Nietzsche’s Historical Context

One might object that my claim that Nietzsche embraces scientific constructivism is anachronistic. Constructivism appears to be a product of later 20th century philosophy of science, arising after Kuhn’s groundbreaking and controversial *The Structure of Scientific Revolutions* (1962). In response, I suggest that notions at the center of Nietzsche’s scientific constructivism are present in his historical context through the influence of Kant and Lange. In later chapters, I argue that Nietzsche’s reconception of science also responds to positions forwarded by these thinkers.

A major tenet underlying Nietzsche’s scientific constructivism is the object constructivist idea that our cognitive contributions are constitutive of the identity of objects. Assuming a fact is just an object’s instantiating a property, accepting a constructivist conception of objects appears to imply the scientific constructivist position that facts follow the establishment of certain cognitive frameworks. Nietzsche says, for example, “There are no ‘facts-in-themselves,’ for *a sense must always be projected into them before they can be ‘facts’*. The question ‘what is that?’ is an *establishment of meaning* from some other viewpoint. The ‘essence’, the ‘essential nature’ is something perspectival” (WP 556, cf. GM III: 12). This suggests that for Nietzsche facts are somehow essentially dependent on the identities of objects, which are in turn somehow essentially dependent on our activities.

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41 For influential post-Kuhn constructivist accounts see Latour and Woolgar (1986); Rorty (1999); Hacking (1999).
42 I am ignoring the German idealists Fichte, Hegel, and Schelling. Although it is arguable that these thinkers have strong constructivist programs (see Rockmore 2005: 41-47), mainly because of their reaction to Kant’s residual representationalism and their identification of subject and object, the impact they had on Nietzsche is not clear. It is important, however, that these views thrived at the time. For Nietzsche’s relation to 19th century science in general see Brobjer and Moore (2004) and Small (2001).
Constructivism about objects in Nietzsche’s historical context derives from Kant.\textsuperscript{43} In broad terms, Kant claims that we can only reliably claim to know objects we in some sense constitute. This is the heart of his famous Copernican revolution, a methodological starting point for the transcendental idealist position defended in the \textit{Critique of Pure Reason}. Kant proclaims that instead of thinking that our mode of cognition must conform to objects, objects should be considered as conforming to our mode of cognition (see Kant 1998: Bxvi).\textsuperscript{44} The central insight of the Copernican revolution is that representing objects that are graspable in principle depends on both the sensory data that we receive passively and the way our cognitive faculties actively process that data. Our cognitive apparatus supplies the framework that enables us to represent objects.\textsuperscript{45}

Kant shifts to this new perspective because he sees that if all cognition is supposed to conform to objects then we could never arrive at necessarily binding laws of nature (see Kant 1998: Bxiii). If knowledge depends solely on experience, then inductive generalizations must take the form “All Fs observed so far areGs” (e.g. “All crows observed so far are black”) rather than “All Fs are necessarily Gs” (e.g. “All crows are necessarily black”). Necessary knowledge

\begin{itemize}
\item \textsuperscript{43} Rockmore (2005): 32-35 actually traces forms of robust constructivism back before Kant to Vico and Hobbes. See Chapter 4 for an in depth look at Nietzsche’s constructivism in relation to Kant’s.
\item \textsuperscript{44} Interestingly, Kant draws a very different conclusion from Copernicus’s impact than Nietzsche. The following is how Kant seems to read Copernicus. Before Copernicus, astronomers assumed that the spectator on Earth is motionless, and so contributed nothing to the observed motions of celestial bodies. So, the observed motions were taken to be their true motions. In introducing a heliocentric system, however, Copernicus claimed that the earth is not motionless, but rather revolves around the Sun along with other celestial bodies. So the motions of those bodies apparent to an observer from Earth result from both their true motions and from the motions of the spectator. Kant believes that a similar shift to what is contributed by the observer allows us to have \textit{a priori} knowledge (see Buroker 2006: 20-23). Unless otherwise noted all Kant quotes are from the \textit{Critique of Pure Reason}.
\item \textsuperscript{45} This is also the case in Nietzsche, as Schacht rightly claims: “To be sure, our experience always exhibits at least a degree of structural articulation and order; but to the extent that it does, Nietzsche contends, this is at least in large measure owing to the fact that such characteristics have been imposed upon it. Here his line is distinctively Kantian; and like Kant, he stops short of idealism, refusing to equate reality with the world as we experience it, but maintaining that our experience is as it is for us to a very great extent in consequence of the way in which we constitute it” (Schacht 1983: 62). I elaborate on this issue in Chapter 4, and also argue that Nietzsche denies Kant’s claim that we simply passively receive sense data. For more on Nietzsche’s constructivism in relation to Kant see Anderson (1996), (1998), (1999).
\end{itemize}
cannot depend on experience because objects in experience only contingently affect subjects. If necessary knowledge cannot be derived \textit{a posteriori}, then it must be known \textit{a priori}. In the \textit{Critique of Pure Reason}, Kant uses his Copernican Revolution to attempt to show that necessary knowledge depends on \textit{a priori} elements of cognition that structure experience.

Kant maintains that advancements in geometry, physics, and chemistry support his Copernican shift (1998: Bxi-xii). He remarks that geometry became a science of necessary truths only when it ceased measuring objects to determine their properties and instead considered what was required to construct geometrical figures in space (space is an \textit{a priori} intuition for Kant). He also claims that experimental results in physics and chemistry became more reliable when scientists such as Galileo, Torricelli, and Stahl followed methods constrained by causal principles (causality is an \textit{a priori} concept of the understanding for Kant). In these cases, the revolutionary position Kant adopts is that our cognitive faculties provide the framework that governs scientist’s use of empirical evidence.

The Copernican Revolution, however, has a famous and troubling implication. Kant’s position implies that “we can never get beyond the boundaries of possible experience,” and \textit{a priori} cognition “reaches appearances only, leaving the thing in itself as something actual for itself but unrecognizable by us” (1998: Bxix-xx). Appearances exist in the transaction between the sensory data we receive and the way our cognitive apparatus processes such information.\textsuperscript{46} Appearances exist empirically. By contrast, things in themselves exist non-empirically, or transcendentally (Kant 1998 Bxxx).\textsuperscript{47} Hence according to Kant we cannot know anything in

\textsuperscript{46} For a brief and informative explanation of this point see Melnick (2010): 14-17.

\textsuperscript{47} Although Kant says we cannot talk about things in themselves, he appears to think of them as fully determinate and completely independent. For example, the view that things in themselves are fully determinate plays a key role in his argument from the result of the first antinomy to transcendental idealism. The antinomy shows that the
itself. In the Prolegomena to Any Future Metaphysics, he remarks, “Physical science will never
discover the internal constitution of things which is not appearance, yet can serve as the ultimate
ground of explanation of phenomena” (§57). Kant’s Copernican Revolution leads to the position
that science can only have knowledge of appearances.

It is well known that Nietzsche was aware of the basic methodological elements of Kant’s
theoretical philosophy, particularly through the influence of Schopenhauer (see, e.g., BGE 11,
54; Hill 2003). Nietzsche was also influenced by Kant through F. A. Lange, a neo-Kantian
2 1875) as one of the most significant philosophical works of the 19th century.48 Lange accepts
from Kant the view that our cognitive faculties constitute the structure of appearance. However,
Lange rejects Kant’s position that our cognitive apparatus consists in a set of a priori elements.
He instead develops an evolutionary account of the conditions necessary for knowledge. Lange
argues that our mode of cognition is the contingent outcome of a certain “physico-psychological
organization” which has developed over time in accordance with helping us to satisfy our
practical aims.49 Lange considers Kant’s putatively a priori conditions of experience strictly to
have a posteriori selective value. According to Lange, for instance, the content of our category
of causality depends on our being the type of creatures that have to make certain judgments to
fulfill various purposes dictated by particular needs. Causality is a regulative category
constitutively dependent on the subject. Science, Lange claims, deals with phenomena
influenced by our physico-psychological organization.

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work on the relation between Nietzsche and Lange.
Lange also maintains that successful science operates with “conventions” used to explicate domains of inquiry.\textsuperscript{50} He writes that “geometry, with its simple lines, surfaces and bodies, helps us forward, though its lines and surfaces do not occur in nature” (1875: 899).\textsuperscript{51} These devices are “necessary inventions” that expediate scientific work (ibid, 214 ff). Moreover, with respect to the objects of scientific discourse, Lange remarks, “the ‘thing’ is, in fact, only the resting place demanded by our thought” (ibid, 214), and there is an inevitable “subjective factor” in the concept of a thing (ibid, 539). He also regards the emergence of different conceptions of the atom – what Lange calls “a mere conceived unity” (ibid, 250) – to vary according to “necessities of calculation” (ibid, 191). Lange’s attention to the conventions of scientific work leads to claim that “Reality as man imagines it [as] an absolutely fixed existence independent of and yet known by us – such a reality neither exists nor can exist” (ibid, 539, cf. 455; 1865: 234). Such a reality cannot exist because the world given to us by science cannot be understood independent of certain types of constructs that we author.\textsuperscript{52} Hence Lange proclaims that there is a “genuine idealism in the whole sphere of natural explanation” (ibid, 684).\textsuperscript{53} For Lange the only world we know is shaped in systematic ways by our cognitive apparatus.

Despite reconceiving Kant’s basic cognitive framework, Lange remains committed to the existence of the thing in itself. He says, “The true essence of things, the last ground of all


\textsuperscript{51} Given the similarity in language it is almost certain that part of Nietzsche’s view of causality in GS 112 comes directly from this passage in Lange.

\textsuperscript{52} Cf. Vaihinger (1966): 340, “F. A. Lange…had already recognized that in science and life, imagination plays a part, that erroneous concepts, as measured by empirical reality, must be employed and this with full consciousness of their falsity: he recognized…that to thought and life fictions are indispensible.” Stack also claims “Throughout The History of Materialism, numerous suggestions of a conventionalism in science, as well as a theory of fictions, are put forward” (1983: 102).

\textsuperscript{53} Lange’s view that “idealism” is central to successful science was influenced by the physicist Lichtenberg, whom Lange cites as saying, “When we believe we see objects, we only see ourselves. We can, properly speaking, know nothing of anything in the world except ourselves and the changes that take place in us” (1875: 853-853). This is a somewhat hyperbolic statement of the post-Kantian idea that the subject actively constitutes its object as opposed to passively discovering what is pre-given in experience. Compare Nietzsche: “man finds in science nothing other than what he himself has put into them, the finding is called science” (LN 2[174]).
appearances, is . . . unknown to us” (1875: 499; cf. 1865: 268). Lange considers the “original,” “true” world to be an “evanescent stream” of “unknowable becoming,” a “presumed chaotic ‘manifold’ of sensory impressions” (quoted in Stack 1981: 80; cf. 1991: 35). For Lange the thing in itself is therefore a realm of sensory impressions in flux inaccessible to our physico-psychological organization.

It is easy to recognize elements of Nietzsche's scientific constructivism in both Kant and Lange. This should deflate the charge of anachronism. Throughout the dissertation I continue to note when the view I attribute to Nietzsche seems likely to have been influenced by ideas present in the scientific community and the philosophy of science of his time. In some cases, Nietzsche’s accepts versions of these positions, such as Lange’s evolutionary epistemology, while other notions, such as Kant and Lange’s dual-realm ontology, he vehemently rejects. Nietzsche’s thoughts on science often simultaneously engage and transcend his immediate historical context.

1.5.3 The Three Periods View

I have largely neglected a developmental interpretation of Nietzsche’s conception of science that differs from the one defended by Clark and Leiter. Call the Three Periods View the position that Nietzsche embraces the Skeptical View in his early and later years (roughly 1872-1877, 1883-1889) and the Positive View in his middle period (roughly 1878-1882). Although there are commentators who resist this reading, it is clearly present in the history of the literature. This reading poses a difficulty for my interpretation mostly because the positive

55 This was first introduced by Vaihinger (1902): 44ff.
conception of science it attributes to Nietzsche in his middle period is in tension with the positive position I attribute to him.

Jonathan Cohen (1999, 2010) defends a recent version of the Three Periods View. He argues that in The Birth of Tragedy (1872), “Truth and Lies in a Non-Moral Sense” (1873), and Untimely Meditations II and III (1874), Nietzsche thinks science denigrates our more important artistic relations with the world (1999: 102-103). In these works, Nietzsche contends that art gives us access to the true nature of the world, while the scientific enterprise effectively blocks an artistic mode of cognition (see, e.g., BT 14-16). Nietzsche’s skepticism toward science, Cohen claims, also exists in Nietzsche’s late period. Cohen writes that from GM forward — starting when Nietzsche praises art over science for opposing the ascetic ideal — Nietzsche thinks science “does not attain truth,” and it is only one of many more or less epistemically equal “interpretations of the world” (1999: 106). Yet Cohen does not think Nietzsche is a skeptic about science in his middle period, which begins with Human, all too Human (1878) and concludes sometime before The Gay Science (1882), but instead embraces positivism during this period. “Positivism” does not refer to any particular way of doing science, but rather the view that science has access to the way the world is (1999: 101, 103). Nietzsche’s positivistic turn presumably follows his disillusionment with Richard Wagner and his consequent skepticism of the saving power of art. In HH Nietzsche claims science, rather than art, religion, or metaphysics, has the ability to “get to the true nature of the world” (HH I: 29, see also 3, 9, 16, 29). Nietzsche’s alleged commitment to positivism in HH suggests that his understanding of

56 See also Rorty (1989).
57 Cohen also defines positivism as the view that science can “contribute crucially to human flourishing” (Cohen 1999: 101). Although I agree that one could argue that his early works support this view, I have a hard time thinking Nietzsche ever relinquished it, particularly because of the naturalism in Z, GM and A.
science undergoes a clear development through three periods, with the first and third being very similar.

I agree with Cohen that HH represents a change in Nietzsche’s view from the early works.\(^{58}\) In HH Nietzsche discusses the merits of the scientific discipline with enthusiasm and he readily incorporates scientific insights into his own naturalist project of debunking religious and metaphysical positions.\(^{59}\) However, the extent of Nietzsche’s commitment to a positive conception of science in HH could pose a challenge for my reading. Nietzsche’s claim that science can “get to the true nature of the world” (HH I: 29) suggests science can deliver a Kantian-Platonic “true world of being.” Cohen indicates as much when he criticizes Nietzsche’s position in HH by saying, “Scientific facts need not reach the true nature of the world. It seems that Nietzsche’s battle against a metaphysical world has led him to claim too much in favor of the ability of science to succeed cognitively in its world” (1999: 105-106). Nietzsche says “too much,” Cohen thinks, by going against his “own post-Kantian perspectival instincts” in thinking science can uncover the way the world is independent of us (ibid.). In HH Nietzsche appears to believe science gives us access to a Kantian-Platonic “true world of being.” Since my view is that for Nietzsche the “true world of being” is nihilistic and that his positive conception of science responds to those conceptions that accept the existence of such a realm, Cohen’s version of the Three Periods View challenges my reading.

What does Nietzsche mean when he says science accesses “the true nature of the world” (HH I: 29)? I claim that he does not think science accesses the Kantian-Platonic “true world.” Consider HH I: 16, entitled “Appearance and the thing in itself.” In the passage, Nietzsche first

\(^{58}\) The Three Periods View is mistaken, however, to claim that in later works Nietzsche is committed to the Skeptical View that science only deals in errors or should be overcome by art (see above).

\(^{59}\) See, e.g., HH I: 1, 3, 9, 10, 16, 18, 29, 38, 256, III: 631, 635.
describes two ways metaphysicians attempt to understand the “world of appearance,” or the empirical world. They might view it as “a painting that has been unrolled once and for all and unchangeably depicts the same scene,” and hold that it must be “correctly interpreted” to know something about the “thing in itself” that grounds it (HH I: 16). This view (arguably Plato’s) appears to assume that the “true world” causally grounds the empirical world. We presumably have access to the former through the latter. Other metaphysicians (arguably Kant) accept a similar dual-realm ontology but deny that the “true world” causally grounds the empirical world. They instead claim that the “true world” is fully unconditioned by the empirical world. In this case, Nietzsche says, “no conclusion can be drawn” about the nature of the former given access to the latter – the “true world” is unknowable.

Nietzsche thinks both dual-realm ontologies assume the empirical world is somehow “fixed” in the sense that there is an ultimately unchanging, determinate way the world of appearance is guaranteed by the “true world.” This is the central characteristic of the metaphysical worldviews Nietzsche attacks in HH I: 16. Nietzsche accuses both metaphysical positions of overlooking the possibility that the “world of appearance” has “gradually become” and “should not be regarded as a fixed object” (HH I: 16). The world as it has “become” is the world as it has been interpreted in various ways throughout history. “This world has gradually become so marvelously variegated,” Nietzsche says, “it has acquired color, but we have been the painters: it is the human intellect that has made appearance appear” (ibid). Nietzsche claims that this idea is beginning to arouse skeptical doubts about dual-realm ontologies and that it will eventually lead to a rejection of those positions (cf. HH I: 9). Importantly, he asserts that science can “illuminate the history of the genesis of this world [as we have ‘painted’ it],” or reveal the

Despite this formal claim, however, it is widely known that Kant was not always consistent on this point.
world as it has “become” (HH I: 16). Science helps people recognize that the “thing in itself is worthy of Homeric laughter” because it is “empty of significance” (ibid). Hence trust in science leads to the dismissal of untenable metaphysical views.\(^6\)

It is now clear that Cohen’s reading of Nietzsche’s so-called middle period is mistaken. First, Nietzsche denies that the “true nature of the world” is fixed apart from our interpretive relations of it. The “true nature of the world” is not the Kantian-Platonic “true world.” For Nietzsche our interpretive practices are essential for giving the world the character it has. The world’s character “becomes,” that is, it develops over time in accordance with our interpretive practices. Second, Nietzsche says the scientific enterprise reveals that “the true nature of the world” depends on our interpretive relations of it. Science does not access the Kantian-Platonic “true world.” Thus, it is an error to think that in his middle period Nietzsche embraces the position that science can give us access to a Kantian-Platonic “true world” simply because he says it can deliver the “true nature of the world.” Nietzsche instead appears to think that science shows us that the way the world is depends on how it is interpreted – a position that supports my own scientific constructivism reading.\(^6\) Nietzsche even suggests that a view of science that embraces this conception of the world helps us overcome the kinds of views that Nietzsche characterizes as nihilistic. But the main point here is that the Three Periods View does not threaten my own reading of Nietzsche’s view of science.

\(^6\) See also Heckman (1993): 151 for a similar reading of science’s role in HH.

\(^6\) Notice also Nietzsche suggests that a constructivist-like view of science can provide an effective and life-affirming response to those kinds of views that I have so far characterized as nihilistic, such as ones which harbor some sort of “true world of being,” which also fits with my reading.
1.5.4 The Nachlaß

My project will make use of Nietzsche’s unpublished material found in the Nachlaß. Recent work on Nietzsche has made it necessary to justify this decision. It is contentious whether the Nachlaß offers a legitimate source for developing an interpretation of Nietzsche’s philosophy. It has been argued that any reading that relies a great deal on that material is suspect. Thus, some interpreters disregard the Nachlaß and attempt to cite only published passages. Others, however, deny the legitimacy of this approach and make substantial use of unpublished writings. Justifications for utilizing unpublished material vary, but the following reasons are primary for my project.

A study of Nietzsche’s philosophy of science, metaphysics, epistemology, and nihilism that ignores the notebooks deprives itself of very valuable material. Most agree that some of Nietzsche’s most philosophically interesting thoughts on those topics occur in the Nachlaß. A good number of Nietzsche’s notes are also consistent with published material, and at times the notes even develop his published thoughts in greater detail. For example, Nietzsche’s view that objects are socially constructed, which gets somewhat minimal attention relative to other topics in his books, is discussed at great length in the notebooks (see, e.g., WP 551, 556, 560, 567, 569; LN 2[152], 9[91], 9[106], 14[79], 14[98]). Moreover, unlike the majority of published writings, a good amount of these passages are stripped of Nietzsche’s characteristic use of metaphor, rhetoric, and hyperbole. The notes often contain straightforward arguments for substantive

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64 See Clark (1990); Leiter (2002).
philosophical positions (see, e.g., WP 516, 555, 557). Hence it seems worthwhile to make careful use of the Nachlaß for this dissertation.

I use the Nachlaß with qualifications. It is undoubtedly the case that any reading that relies exclusively on the notebooks runs a high risk of misunderstanding Nietzsche’s thought. Not all of his published ideas are compatible with unpublished material, and some unpublished passages contain thoughts entirely absent from what was prepared for publication. I therefore follow the interpretive rule that should there be a conflict between published and unpublished material, priority will be given to the former. Moreover, to the extent that it is possible I cite published material in support of unpublished ideas, and use unpublished work as I see it further developing, clarifying, and detailing published material. Hopefully this will make for a responsible use of the notes while maximizing the wealth of philosophical content available for the topic.
CHAPTER 2

NIHILISM AND SCIENCE

I have suggested that Nietzsche has a positive conception of science that responds to his worries about nihilism. This chapter looks more closely at Nietzsche’s understanding of nihilism in relation to the scientific enterprise. After examining Nietzsche’s conception of nihilism, I attempt to delimit which conception of science, if any, he thinks is nihilistic. I then begin to develop Nietzsche’s non-nihilistic conception of science.

2.1 TWO CONCEPTIONS OF NIHILISM

I regard Nietzsche’s philosophical project as centered on attempting to understand and overcome a particular crisis, namely, the crisis of nihilism. Nietzsche appears to understand nihilism as the position that life is meaningless because it is valueless (see WP 12, 36, 55, 585; GM II: 24). On his account, people find life meaningless because the most prominent values they have used to understand and assess it have become devalued. This devaluation leads to a failure to achieve certain goals: “What does nihilism mean? That the highest values devaluate themselves. The goal is lacking, ‘why’? finds no answer” (WP 2, see also 55; A 1). Assuming values are enabling conditions for attaining goals, Nietzsche’s conception of nihilism appears

68 I am not alone in this. Heidegger (1979, 1982) is the most famous commentator to adopt this view. Danto differs vastly from Heidegger on many issues, but nonetheless takes “nihilism as the central concept in [Nietzsche’s] philosophy” (Danto 1965: 22). Havas (1995) also gives a somewhat idiosyncratic but interesting account along these lines. My work is mostly indebted to Reginster (2006). Note also that I rely more on the notebooks in this section than others. Reginster has convincingly argued that many important published discussion of nihilism (e.g. GS 346; BGE 10; GM P: 5, II: 24, III: 14, 28; A 7) are tentative or ambiguous, and that the notebooks help sort out Nietzsche’s considered position (see Reginster 2006: 25-53).
fundamentally to be a claim about values. The important issue to examine is what it means for values to have become devalued.

Values seem to become devalued when people recognize that they have no absolute validity. This recognition leads to what Bernard Reginster calls nihilistic “disorientation” (2006: 26). Nihilistic disorientation is a consequence of the death of God (see WP 55; GS 125). God’s death is the event in which belief in God (or any metaphysical world) becomes discredited. Nihilistic disorientation follows this event because God’s existence is typically thought to ensure the absolute validity of values. In the wake of the death of God, people come to recognize that no values have such normative authority. A period of confusion follows in which there is a loss of understanding about how people should orient themselves in the world. Nietzsche remarks, “We are losing the center of gravity by virtue of which we have lived; we are lost for awhile” (WP 30, see also 36; Z III: “Tablets” 16; GS 125). Once values become devaluated, people find that they lack the robust terms in which to deliberate about what to believe and what to do. Hence they are disoriented.

Nihilistic disorientation is a crucial part of Nietzsche’s understanding of nihilism. He appears to deny the existence of moral facts (see D 210; GS 301; BGE 108; TI “Improvers” 1; Z III: “Tablets” 1) and absolute moral reasons (see BGE 5, 186). However, for Nietzsche nihilism does not seem primarily to be a claim about values, but a claim about the world and people’s

70 Reginster talks about objective values losing validity, while I have substituted this for absolute. Nietzsche allows values to have objective validity if conceived within certain frameworks. Once a framework is set the truths or falsities regarding values are objective. But Nietzsche is worried about the loss of our ability to affirm absolute values, or those that lie outside all forms of life or frameworks, guaranteed by God or some metaphysical world.
71 To be sure, this only applies to those who still affirm Christian morality, but according to Nietzsche this includes nearly everyone at the time, perhaps even to some extent himself (see GS 344; GM III: 24).
existence within it.\textsuperscript{72} He remarks, for instance, “A nihilist is a man 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” (WP 585, see also WP 701, 247; GM II: 24; A 6, 7, 20). Nihilism seems to result not from the devaluation of the absolute standing of values, but from the shocking awareness that the world is inhospitable to the realization of values esteemed as highest. Reginster calls this nihilistic “despair” since it refers to a state of affairs in which what is most important is recognized as unattainable (2006: 28). Nihilistic despair is the event that the way the world is prevents many people from realizing their highest values. On this view of nihilism, people think the world “deserves to be repudiated” (WP 37).

Although Nietzsche is concerned with nihilistic disorientation, he is more worried about nihilistic despair. Nietzsche thinks nihilism follows the death of God – but he does not consider it to be a necessary consequence of that event (see GS 343). The death of God leads to nihilism only with further assumptions. It appears to lead to nihilism because the idea of God (or any metaphysical world) is taken to be a necessary condition of the realization of many people’s highest values. So the inference from discrediting belief in God to nihilism holds only on the assumption that the realizability of many people’s highest values requires belief in God (or a metaphysical world), and this assumption obtains only if God’s (or a metaphysical world’s) existence allows people to achieve their highest values. If so, then it must be because those values cannot be realized in the conditions of this world. It is therefore reasonable to think that the state of affairs in which many people’s highest values cannot be realized in the conditions of this world is the fundamental cause of nihilism.\textsuperscript{73}

\textsuperscript{73} See Reginster (2006): Ch. 1 for a lengthier defense of this argument. Simon May challenges Reginster’s claim that nihilistic despair fundamentally characterizes Nietzschean nihilism. He claims that, “Full-blooded nihilism is to
Call the values that are necessarily unrealizable in this world life-negating. For Nietzsche life-negating values are those from the standpoint of which life is “deserving of negation” (A 7, see also WP 37). A somewhat infamous example he gives is the value of pity. He argues that pity is “nihilistic” and exemplifies a “negation of life” because it aims to preserve weakness in a world preserved only by strength (A 7). Nietzsche often calls life-negating values “moral” (see EH “Destiny” 7; A 6; 26; BT P: 4; WP 461, 1066; LN 10[192]). He says, for instance, that confronted with morality (especially Christian, or unconditional, morality), life must continually and inevitably be in the wrong, because life is something essentially amoral – and eventually, crushed by the weight of contempt and the eternal No, life must then be felt to be unworthy of desire and altogether worthless (BT P: 4, cf. GS 344; WP 12).

A primary claim is that moral values are necessarily unrealizable in our amoral world. So placing conviction in moral interpretations of the world effectively condemns the world (see also EH “Destiny” 7; A 6; WP 1, 11). Any attempt to manifest life-negating values results in condemning life as it is.

On the current interpretation of Nietzsche’s understanding of nihilism, overcoming nihilistic despair requires either (i) challenging the claim that God is dead or (ii) revaluing life-negating

will – often passionately – what is nothing. This is the . . . will that, as Nietzsche characterizes it, Platonism-late Judaism-Christianity and, in general, ‘slave morality’ manifest. They will ‘nothing’ because they are driven by an all-encompassing will to escape a world of suffering, a will that, because it repudiates what is constitutive of living . . . wills what is not human life, not the world of transience, chance, fate, and time in which we are actually situated” (May 2009: 89). Yet, if nihilistic despair is the claim that our highest values are necessarily unrealizable, our attempt to ‘will’ these values indeed ‘repudiates what is constitutive of living’. In other words, ‘willing nothing’ seems to come to the same thing for both Reginster and May. May even seems to say so himself. He later claims that nihilism “in the further senses of the term” is “repudiation of hitherto dominant values – on epistemological grounds (these values seem to be conceptually incoherent, or to refer to states of affairs or conditions for their fulfillment that do not or could not exist” (May 2009: 100). This captures exactly what Reginster means by nihilistic despair. For these reasons I don’t find May’s challenge formidable. For criticisms of Reginster’s project in general, however, see Pippin (2008); Hussein (forthcoming).

I go on to suggest there is textual evidence for using the term “life-negating” in this manner. For other ways of understanding Nietzsche’s conception of life-negation see Reginster (2006): 44-49. I should add that values are life-negating if they are necessarily unrealizable in this world and are taken to be the only real values available. Part of Nietzsche’s revaluation project is to show that they are not the only values available.
negating values. Nietzsche’s task is obviously (ii). But which values need revaluing, and how might this proceed?

2.2 REVALUING LIFE-NEGATING VALUES

For Nietzsche overcoming nihilistic despair requires revaluing life-negating values. In an important passage in the Nachlass he says:

We have measured the value of the world according to categories that refer to a purely fictitious world. Final conclusion: All the values by means of which we have tried so far to render the world estimable for ourselves . . . have proved inapplicable and therefore devaluated the world (WP 12, see also P: 4; A 6).

Life-negating values, or what Nietzsche calls here “categories,” have in some sense been the basis for all other values by which we attempt to understand and assess the world. Nietzsche goes on to explain that “the feeling of valuelessness [is] reached with the realization that the overall character of existence may not be interpreted by means of these [categories]” (WP 12, see also P: 4). This reveals an antidote for nihilistic despair: “once we have devalued these three categories, the demonstration that they cannot be applied to the universe is no longer any reason for devaluating the universe” (WP 12). The “categories” listed are the values that (a) existence has a final aim, (b) pluralities of events can be unified, and (c) there is a true world of being. Nietzsche asserts that none of these values are satisfiable in the imminent world. Understanding (c) the true world of being is the most important for this dissertation, since Nietzsche often talks about the true world in relation to science (see, e.g., TL; HH I: 16; GS 344; GM III: 24; BGE 21;

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75 In what follows, I will be working with WP 12 (KSA 11[99]) and supporting it with published passages when possible. This is justified because of the incredible importance of WP 12 on its own terms for understanding Nietzsche’s view of nihilism. Many other interpreters have recognized the importance of this passage. See Heidegger (1982): 24-51; Schacht (1975): 180; Reginster (2006): 45-46; Sommer (2006): 253-255. To my knowledge no published passage sits in tension with my reading of WP 12.

76 This is highly unlikely, and Nietzsche never really attempts to support this premise in full. This is not a problem for my account because I do not take issue with the derivative values, but those from which they are putatively derived.
TI “Reason”). His criticisms of (a) and (b) nonetheless introduce an ontology that, I suggest in the next chapter, provides him with a way to combat nihilistic presuppositions in certain scientific worldviews. I examine (c) in the next section and turn now briefly to (a) and (b).

Nietzsche maintains that we must rid ourselves of the value that (a) existence has a final aim or purpose because a “‘meaning’ in all events . . . is not there” (WP 12). This “meaning” might have been, he offers, “the ‘fulfillment’ of some highest ethical canon in all events, the moral world order; or the growth of love and harmony in the intercourse of beings; or the gradual approximation of a state of universal happiness” (WP 12, see also A 26). Nietzsche’s target is any moralistic interpretation of the natural world, arguably those espoused by the Christian, Kantian, or even Hegelian tradition, which allow humanity an avenue to avoid the “torment of the ‘in vain’, [and] insecurity” of bearing lives with no visible moral progress or purpose (ibid). Nietzsche proffers that moralistic valuations are unrealizable because the world essentially exists in a state of “becoming” [Werden] and “becoming aims at nothing and achieves nothing” (ibid, see also GM II: 12; LN 11[72]). If everything within the world transpires without a given purpose, then the value that life has an inherent purpose refers to only a “purely fictitious world” (ibid). For Nietzsche conceiving the world essentially to exist in a state of becoming helps overcome nihilistic despair partly because it exposes the unsatisfiable nature of our moralistic valuations of the world (see also Z “Tablets” 8). Those valuations are said to be erroneous projections onto an amoral world (see GS 109; BT P: 4). Becoming “redeems” our relationship with the world because it frees us from thinking that our moral judgments refer (see TI “Errors” 7).77 For this reason, Nietzsche thinks becoming is “innocent” (TI “Errors” 8).

77 This redemptive quality of becoming is contingent on the possibility that agents value a conception of the world as becoming.
Nietzsche also asserts that there is no (b) “comprehensive unity in the plurality of events,” or no ultimate “organization in all events, and underneath all events,” for one to “admire and revere” (WP 12). He claims that such admiration or reverence depends on the recognition that one is a “mode of the deity” which establishes and maintains the grand whole (ibid). This recognition would allow one to “believe in [one’s] own value” by having the ability to comprehend the unity of the system (ibid). Although Nietzsche seems to target theistic interpretations of the universe propounded by modern scientists such as Newton or Voltaire (see GS 37), he is most likely thinking of Spinoza.

In his *Ethics*, Spinoza argues that we are “modes” of God endowed with intelligence and reason. Because we are such creatures we have access to a unique kind of virtue through knowledge of God. The best kind of knowledge for Spinoza is a pure intellectual intuition of the essences of things as having a necessary and determinate nature. When one has this kind of knowledge one understands all things under the aspect of eternity, or situated in relation to God and his attributes (thought and extension). What one sees when understanding things in this manner is that all events follow necessarily from the essence of matter and the universal laws of physics, and that all ideas, including all the properties of minds, follow necessarily from the essence of thought and its universal laws. Spinoza’s ethical program consists in attempting to see the determinate and necessary nature of the whole with reverent, intellectual equanimity.

Nietzsche believes Spinoza’s manner of valuing the world is mistaken because it assumes an erroneous conception of the world. The world is instead “becoming,” Nietzsche proclaims, and “underneath all becoming there is no grand unity in which the individual could immerse himself completely as in an element of supreme value” (WP 12). Nietzsche offers the view that the world exists in a state of becoming in opposition to Spinoza’s ontology because becoming
indicates that all events are indeterminate and contingent rather than determinate and necessary.\textsuperscript{78}

In sum, Nietzsche opposes the first two life-negating values by appealing to becoming (see also GS 109; GM II: 12; BGE 22; TI “Errors” 7, 8). The structure of the arguments is as follows: (1) If the world is becoming, then [(a) or (b)] is unrealizable; (2) The world is becoming; (3) So, [(a) or (b)] are unrealizable (see also TI “Reason” 1). For this to be plausible, of course, Nietzsche would have to do more work. First, he has not provided sufficient reason for taking (1) seriously. He has not actually shown that becoming is inconsistent with (a) or (b). Other passages fill out the argument (against (a) see PT; GS 109; GM II: 12; BGE 13; TI “Errors” 7; EH “Books,” BT: 3; against (b) see PT; BGE 22; TI “Reason” 2). He has also not properly supported (2). He could do so by providing independent reasons for taking an ontology of becoming seriously over other ontologies (for this see PT; BGE 13, 36; TI “Reason” 1). And finally, it would be helpful to have independent reasons to assert (3). Nietzsche could do this by doubting the plausibility of (a) and (b) on internal rather than external grounds (for (a) see HH I: 2; D 210; WP 253; for (b) see WP 517, 552, 576).

It is therefore an open question whether or not Nietzsche has convincing arguments against (a) and (b). Despite this difficulty, however, the important point that concerns my project is that Nietzsche clearly wants to motivate an ontological conception of becoming as central to his project of overcoming nihilistic despair. The following chapter explains why this is the case. To understand Nietzsche’s motivation for positing becoming, though, it is imperative first to grasp his criticism of (c) the true world of being.

\textsuperscript{78} See Chapter 3 for more discussion about these aspects of becoming.
2.3 THE TRUE WORLD OF BEING

Nietzsche writes that recognizing the unrealizability of (a) and (b) from the perspective of a world in a state of becoming leads to what he calls a nihilist’s final “escape,” which is “to pass sentence on this whole world of becoming as a deception and to invent a world beyond it, a true world” (WP 12, see also TI “Reason” 1, 2; “World”; EH P: 2). As a consequence, the true world presents more of a problem than either the first two life-negating values. With the advent of the “true world,” Nietzsche says, “the last form of nihilism comes into being” (WP 12). Hence devaluing the true world is imperative for overcoming nihilism overall.

Nietzsche’s conception of the true world loosely equates Plato (BGE 14; TI “Ancients” 2; WP 572), Christianity (BGE 11, 54; TI “Reason” 6), Kant (HH I: 16; BGE 16; TI “Reason” 6; A 10), Schopenhauer (HH I: 26; WP 411), and Anaxagoras and Parmenides (PT). So, although the true/apparent world distinction derives from the Greek-Christian tradition, and the world in itself/world of appearance division is Kantian-Schopenhauerian, Nietzsche employs these distinctions more or less interchangeably (see, e.g., TI “World,” “Reason” 6). The connection between the life-denying nature of nihilism and the true world is a prominent theme in Nietzsche’s work. He claims that “Dividing the world into a ‘real’ one and an ‘apparent’ one, whether in the manner of Christianity, or of Kant (a crafty Christian, when all’s said and done), is but a suggestion of decadence – a symptom of declining life” (TI “Reason” 6, see also A 17); the “hypothesis of being is the source of all slandering of the world: ‘the better world, the true world, the world “beyond”, the thing-in-itself’” (LN 11[72], see also EH “Destiny” 8); the “true world” is one of the “most malignant errors of all time,” a “mendaciously fabricated world” (A 10, see also EH P: 2); it is a “presupposition” of “nihilism” that “there is no absolute nature of things, no ‘thing-in-itself’” (LN 9[35], see also 9[41]); and finally, “it is of cardinal importance
that one should abolish the true world. It has been the greatest . . . devaluator in respect of the world we are: it has been our most dangerous attempt yet to assassinate life” (WP 583, see also TI “World” 6). The true world is a devastating life-negating category that requires revaluation.

It will be helpful to use Kant’s “true world of being,” an ontology of things in themselves, for understanding Nietzsche’s view that the true world is nihilistic. Things in themselves appear to exemplify two principles (see 1998: A506-7/B534-5). First, they are determinate with respect to their properties. That is, for every possible property F, a thing must either have the property (be F), or not have the property (be not-F). Second, they are ontologically independent of all other things, most importantly our beliefs. Although Kant seems to think things in themselves supply the ultimate ground for our knowledge and even serve as the standard against which the objectivity of our beliefs can be evaluated, they are in principle inaccessible by our mode of cognition. We can have no knowledge of things in themselves.

One of Nietzsche’s arguments against the existence of the true world is as follows (see GS 54; BGE 16; GM III: 12; WP 557). For Nietzsche to conceive of something requires some point of view. This is the root of his perspectivism, traditionally understood as the thesis that knowledge claims are perspectival, or, more specifically, that knowledge claims are conditioned

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79 The more recent “two-aspects” view may challenge this traditional interpretation. I will not address this view of things in themselves for the reason that Nietzsche read Kant as holding the “two-worlds” view.
80 This is most obvious when he closely associates (and perhaps even identifies) the transcendental object – a non-empirical “x”(A104) that “throughout all our knowledge is always one and the same”(A109), but which is “distinct from our representations”(A105; see also A191/B236, A250-1, A366, A372, A565/B593) and so “cannot be intuited by us” (A109) – with noumenal objects (see A288/B344, A358, A545/B573, A564/B592, A565/B593).
81 Nietzsche has various arguments against the true world (for a helpful list see Hales and Welshon 2000: 60-62; in Nietzsche see HH I: 16; GS 54; BGE 2, 16; GM III: 12; TI “Reason” 1, 6, “World”; WP 17, 553-555, 567, 568, 579, 584). I focus on the argument that links the true world to nihilism, which also happens to be the one commentators find the most successful (see, e.g., Clark 1990: 127-148; Anderson 1996, 1999).
by our interests. If to conceive of something requires some point of view, we can have no conception, or only a contradictory one, of something in principle inaccessible by our mode of cognition. Something “in itself,” Nietzsche remarks, is “unthinkable” (GM III: 12). Since the true world is in principle inaccessible by our mode of cognition, it is either an empty or an incoherent notion. Why does Nietzsche think the true world is a “purely fictitious world” (WP 12)? Something in principle inaccessible by our mode of cognition can only be a conceptual posit, in which case the inability to meaningfully conceive something seems to be a good test for whether or not it exists. Because we can have no conception, or only a contradictory one, of something in principle inaccessible by our mode of cognition, there is good reason to think the true world does not exist.

Commentators typically regard Nietzsche’s argument against the true world to be an argument against metaphysical realism. Metaphysical realism is primarily an ontological thesis with correlative semantic and epistemological dimensions. The ontological thesis is that the world has a fully determinate nature that is completely mind-independent; the semantic thesis is that propositions are true if they correspond to this ontology, and false if not; the epistemological thesis is that knowledge in part consists in true propositions about this ontology.  

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82 See, e.g., Magnus (1988); Clark (1990): 127. See Schacht (forthcoming) for a non-epistemological reading of Nietzsche’s perspectivism. Schacht argues that perspectivism fundamentally has to do with general conditions of life, specifically values. For the most part, Schacht is right. However, there are crucial passages where Nietzsche explicitly targets epistemological issues when discussing the impact of perspective, such as GM III: 12 and GS 354. Nonetheless, I eventually claim that values fundamentally determine epistemological positions, in which case my view may be consistent with Schacht’s.


85 Putnam’s famous conception of metaphysical realism is consistent with my account (see Putnam 1978: 127-40). Putnam thinks “metaphysical realism” is in part the view that reference is a relation between linguistic entities and entirely extra-linguistic (and in that sense independently existing) natural kinds. Natural kinds are determinate entities out in the world, and there is presumably a single set of such natural entities somehow given by the structure of the world itself, independently of human practice.
argument against the true world implies that the metaphysical realist ontological thesis is false, in which case all the metaphysical realist theses are false.

Does Nietzsche’s argument against metaphysical realism imply that there is no non-perspectival way the world is? It depends on what “non-perspectival” means. Nietzsche follows Kant in holding that reality for us is what in principle can be encountered in experience. Of course, Nietzsche thinks we are not the only kinds of beings that can experience, or for Kant, intuit – though Nietzsche, unlike Kant, denies the existence of God. Nietzsche’s account does not imply that there is no non-perspectival way things are with the world if this means that there is no non-human perspectival way things are with the world. But it does imply that there is no non-perspectival way things are with the world if this means that there is a way things are with the world in principle independent of all perspectives.

One objection to Nietzsche’s account is that his argument against metaphysical realism is compatible with understanding that there is a superior understanding of the way things are with the world for beings with greater cognitive capacities than our own. But this objection is not threatening. Nietzsche can accept the claim that beings with greater cognitive capacities than our own might discover that our best understanding of reality is false and propose a better one. However, the only way to make sense of this idea is to regard the superior conception as satisfying our understanding what constitutes the best conception of reality. This is consistent with Nietzsche’s understanding of our only conception of reality.\(^{86}\)

Nietzsche’s argument against the true world of being/metaphysical realism depends on perspectivism. Let us examine perspectivism more closely. Clark and Leiter maintain that the traditional understanding of perspectivism, according to which our interests are necessary

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\(^{86}\) A version of this argument about truth appears in Clark (1990): 20-51; see also Ridley (1998): 106-108.
conditions of any knowledge claim, is perfectly compatible with the realist view that objects
have “a determinate character that transcends any particular perspective we adopt upon it”
(Leiter 2002: 201; cf. 994: 334, 351; Clark 1990: 138-144;). For Clark and Leiter, Nietzsche is
indeed a “common sense realist” who adopts a “common sense version of the correspondence
theory of truth” according to which beliefs are true when they correspond to objects of
experience (Clark 1990: 31; see also Leiter 1994: 335-336; 2002: 15-21). Common sense
realism assumes “the world exists independently of our representations of it,” where
“independent” means “ontologically . . . distinct from knowers and their representations” (ibid,
40, 45, see also Leiter 1994: 334). According to Clark and Leiter, Nietzsche believes the goal of
inquiry is uncover propositions that “correspond to [the independently existing world], that is,
get it ‘the way it is’,” or “know about its actual nature” (ibid, 39; see also Leiter 1994: 345).

On Clark and Leiter’s reading, Nietzsche holds that knowable objects are merely
conditionally, not constitutively, related to our perspectives. Clark claims that for Nietzsche a
knowable object has “existence in itself” but not “essence in itself” (1990: 136). An object with
“essence in itself” has “an essence or nature that is independent of what it can appear to be [that
is, a thing in itself],” whereas an object with “existence in itself” is just an “independently
existing thing” (ibid, 136-7, my brackets). Leiter provides a helpful clarification of Clark’s
reading by contending that for Nietzsche our interest-relative perspectives are “trivially
necessary conditions” of knowing, but not “constitutive” of the objects of knowledge (1994: 349-
350). It is a condition of knowing that we do so from some interest-relative standpoint, but
because objects exist determinately independent of us, “the object of knowledge is never

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87 Both Clark and Leiter style themselves neo-Kantian readers of Nietzsche, so the claim that the world has a
completely determinate character appears to be the Kantian claim that objects are fully determinate with respect to
their properties.
constituted by that or *any other particular* interest" (Leiter 1994: 350). The view that objects gain some determinate form or other in virtue of our interest-relative perspectives implies a *constitutive* relation between objects and our perspectives. On this view, our perspectives are non-trivially necessary conditions of knowing. Clark and Leiter deny that Nietzsche embraces such a position.

Call Clark and Leiter’s version of perspectivism *perspectival realism*. The perspectival realist ontological thesis is that the world has a fully determinate nature that is conditionally independent of our perspectives; the semantic thesis it is that propositions are true if they correspond to this ontology, and false if not; the epistemological thesis it is that knowledge at least in part consists in propositions that correspond to this ontology. While metaphysical realism claims that the world has a fully determinate nature that is both conditionally and constitutively independent of our perspectives, perspectival realism is only committed to the claim that insofar as we encounter the world it is determinate. Metaphysical and perspectival realism agree that genuine knowledge of the world requires the world to have a completely determinate nature.

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88 Cf. Devitt (1997): 15-16, “An object has objective existence, in some sense, if it exists and has its nature whatever we believe, think, or can discover: it is independent of the cognitive activities of the mind . . . It is not constituted by our knowledge, by our epistemic values, by our capacity to refer to it, by our imposition of concepts, theories, or languages;” cf. Owen (2007): 30, “A perspective determines what is intelligibly up for grabs as being true or false, not what is true or false.”

89 For similar versions of perspectival realism, at least with respect to the ontological thesis, see Devitt (2008); Giere (1999), (2006). With respect to the Positive View in general, I argue in the next chapter that both Hales and Welshon (2000) and Richardson (1996) are committed to at least the ontological thesis of perspectival realism. It is unclear whether or not Schacht is similarly committed. Clark (1990): 151-154 argues that he maintains that there are truths about the world independent of any perspective (see, e.g., Schacht 1983: 112). He has corroborated this in personal correspondence. Yet these truths are not the truths that science delivers, which is the position embraced by Clark and Leiter. Schacht interprets Nietzsche as holding the view that scientific truths do not presuppose that there is a way the world is that is constitutively independent of our perspectives, which would distance him from perspectival realism. Anderson (1996) is not committed to perspectival realism.
Both metaphysical and perspectival realism are committed to what I call *objectivist realism*.\(^{90}\) The objectivist realist ontological thesis is that the world has a completely determinate structure that is constitutively independent of our perspectives (OR\(_O\)); the semantic thesis is that propositions are true if they correspond to this ontology, and false if not (OR\(_S\)); the epistemological thesis is that knowledge at least in part consists in propositions that correspond to this ontology (OR\(_E\)).\(^{91}\) The ontological thesis of objectivist realism is neutral about whether the world has a completely determinate structure that cannot in principle be encountered (metaphysical realism) or one that can (perspectival realism). My concern is with the possibility that Nietzsche thinks we can in principle grasp the world’s determinate nature constitutively independent of our perspectives.

Objectivist realism reflects our straightforward, ordinary ways of thinking about the world, truth, and knowledge. However, I suggest that Nietzsche considers objectivist realism *nihilistic* because OR\(_O\), OR\(_S\), and OR\(_E\) are life-negating values. OR\(_O\), OR\(_S\), and OR\(_E\) are values in the sense that they exemplify certain criteria that some scientists and philosophers claim our best scientific theories should embrace.\(^{92}\) My contention in this project is that Nietzsche thinks these values cannot be satisfied in the conditions of this world because they harbor essential presuppositions of a true world of being. If so, then the Positive View is guilty of committing Nietzsche to a position he considers nihilistic.

\(^{90}\) The term ‘objectivist realism’ comes from Giere (2006): 4-6. He uses it to attack metaphysical realism on the grounds of what he calls a “perspectivist” view of science. I am using the term to attack this view *but also* Giere’s perspectival view, since both are committed to OR\(_O\).

\(^{91}\) Objectivist realism is at least one modern form of scientific realism (see Psillos 2003: 60-62). I qualify the epistemological thesis by saying “in part” because objectivist realism need not be committed to the naturalist component of modern scientific realism which holds that only what scientific theories say counts as knowledge.

\(^{92}\) For an example of a contemporary scientist and philosopher who holds this value see Weinberg (1992, 2001). My understanding of value here is consistent with Nietzsche’s view that a value is generally that which sustains some form of life (see, e.g., A 25). In the case of science, the form of life is scholarly work, which, he thinks, requires justification in the form of some criteria of what constitutes understanding the world (see GM III: 25).
This project focuses on explicating Nietzsche’s attack on OR. If this is successful, all objectivist realist theses will be untenable. To begin to see Nietzsche’s arguments against OR, the following section investigates which conception of science Nietzsche thinks is committed to presuppositions essentially associated with a true world of being. This will help bring out which conception of science Nietzsche thinks is nihilistic, and which might aid in overcoming that event. My discussion begins by examining Nietzsche’s contentious claim that modern science is guided by a nihilistic ideal.

2.4 SCIENCE AND THE ASCETIC IDEAL

In this section, I look at the relation between science and what Nietzsche calls “the ascetic ideal.” I argue that Nietzsche thinks a conception of science subsumed by the ascetic ideal embraces metaphysical realism.

In the third essay of *On the Genealogy of Morality*, Nietzsche offers an analysis of “what have up until now been regarded as ideals, ideals which are hostile to life, ideals that defame the world” (GM II: 24, cf. EH “Books,” GM). He concentrates on the *ascetic ideal* – an ideal he views as having profoundly influenced Western philosophical thought. Nietzsche claims that the ascetic ideal leads to self- and world-denial, primarily because it is directed at ends which transcend human experience.\(^{93}\) Those who value the ascetic ideal juxtapose this life (along with what pertains to it: ‘nature’, ‘world’, [and] the whole sphere of becoming and transitoriness) with a quite different mode of existence which it opposes and excludes” (GM III: 10).

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\(^{93}\) This is the “mature” phase of the ascetic ideal. In its early stages, it is life-negating but not necessarily committed to otherworldly ideals. It simply finds fault with the imperfections of this life and world and so attempts to denigrate this world in various ways. In its “mature” phase it creates otherworldly ideals as a means of attempting to escape the imperfections of this life and world.
Whoever submits to the ascetic ideal valorizes some other world, or “mode of existence,” over this world, which effectively “opposes” and “excludes” our world.

Nietzsche famously asserts that modern science is “the latest and most noble form” of the ascetic ideal (GM III: 23). Science is a manifestation of the ascetic ideal because it operates on an “unconditional will to truth,” or a “faith in a metaphysical value, the value of truth in itself” (GM III: 24). Nietzsche cites the fifth book of GS to help explain what he means (ibid.). In that work he remarks that by valuing “truth in itself” science “thereby affirms another world than that of life, nature, and history,” and “insofar as [one operating under an unconditional will to truth] affirms this ‘other world’, does this not mean that he has to deny its antithesis, this world, our world?” (GS 344). This explanation dovetails with the description of the ascetic ideal as directed at ends which transcend human experience: an unconditional will to truth renders science ascetic because it consists in faith in some metaphysical value that denies the imminent world. According to Nietzsche, this faith gives science “a direction, a meaning, a limit, a method, [and] a right to exist” (GM III: 24). Science has had “no other goal” justifying its work outside the ascetic ideal (GM III: 23). The scientific enterprise “first needs a value-ideal,” Nietzsche contends, “in the service in which it could believe in itself” (GM III: 25).

the lie involved in belief in God” (GM III: 27), it remains ascetic due to its Christian faith in truthfulness.

The relation between science and Christianity because Nietzsche maintains nihilism is “rooted” in the Christian-moral worldview (WP 1; see also TI “Raids” 21; A 20). Christianity is guilty of positing moral values that are not realizable in the conditions of the empirical world (see BT P: 4; EH “Books,” BT 2; GM II: 24; WP 1). Nietzsche believes the “residues of Christian value judgments are found everywhere” – even in “contemporary natural science” (WP 1, see also GM III: 27). Insofar as “science . . . has been influenced by [Christian]-moral judgments,” the scientific discipline is nihilistic (WP 1, see also GM III: 25). On Nietzsche’s view, a conception of science subsumed by the ascetic ideal adopts a nihilistic Christian-moral view of truthfulness, and so any conception of science subsumed by the ascetic ideal is nihilistic. Overcoming a nihilistic conception of science then consists in overcoming science’s faith in “truth in itself” inherited from Christian morality.

Nietzsche offers his discussion on asceticism, Christianity, and science as radical insights about previously unacknowledged trends in Western philosophy. But there are objections to Nietzsche’s account. The main problem concerns his claim that an unconditional will to truth must be an expression of the ascetic ideal. Surely, one might claim, one can be unconditionally committed to truth and at the same time deny commitment to any sort of otherworldly realm. For this reason, commentators such as Robert Nola have claimed that Nietzsche’s argument that faith in the absolute value of truth “thereby” commits one to “affirming” some “other world” is a non sequitur (2005: 213). Nietzsche’s text does not appear to do enough work to support the position. In what follows, I respond to this worry by filling in some important details of Nietzsche’s view.
The central issue concerns what it means for science to inherit a Christian-moral view of truthfulness. Nietzsche maintains that the element in “Christian morality” which leads to overcoming the Christian God by “translating” into a “scientific conscience” is “the concept of truthfulness taken more and more rigorously; the confessional subtlety of the Christian conscience” (GS 357, cited in GM III: 27). This links truthfulness with the Christian confessional. The purpose of the Christian confessional is to reveal fully one’s transgressions before God. God, however, already knows the complete truth; nothing can be hidden from God. In confession one must therefore attempt to disclose the truth about oneself in a way nearest to God’s truth. By thinking about truthfulness “more and more rigorously” with precise “subtlety” [Feinheit], in the confessional the Christian-moral conscience attempts to approximate God’s perspective.94

On this analysis, the confessional both assumes and values metaphysical realism. More specifically, the confessional assumes there is some determinate truth about oneself graspable from God’s perspective – a truth that would be what it is regardless of anyone’s relation to it – and affirms that grasping such truth is desirable.95 Notice that Nietzsche is not concerned with any particular truth one might confess, but with the conception of truth assumed by the confessional, that is, a conception of truth which presupposes a metaphysical realist ontology (see also GM II: 22). Nietzsche’s position that the Christian-moral conscience “translated and sublimated” into the scientific conscience therefore seems to suggest that modern science embraces metaphysical realism. Since a conception of science subsumed by the ascetic ideal

94 The insights in this paragraph are indebted to Ridley (1998): 116-117.
95 Ridley (1998): 102 argues that Nietzsche is targeting a conception of truth as final, complete, and transcendent. This is consistent with my reading.
inherits its faith in truth from Christianity, an ascetic conception of science appears to be one that endorses metaphysical realism.

Commentators generally agree that for Nietzsche an ascetic conception of science is constituted by commitment to metaphysical realism. Whether or not Nietzsche’s explanation about the relation between the Christian-moral conscience and the scientific conscience is convincing, my reading that Nietzsche believes an ascetic conception of science embraces metaphysical realism is the most straightforward way of understanding his assertion that an ascetic conception of science is committed to faith in “truth in itself” which “thereby affirms another world” (GS 344, cited in GM III: 24). On this reading, Nola’s charge that faith in “truth in itself” does not “thereby” entail commitment to “another world” is inaccurate. Metaphysical realism indeed affirms the existence of a true world of being.

Now, faith in “truth in itself” need not imply commitment to the actual existence of some other world for Nietzsche’s argument to be plausible. Nietzsche is mostly concerned with the value metaphysical realism carries in scientific practice. He remarks, “The worst thing is that with the old antithesis ‘apparent’ and ‘true’ the correlative value judgment ‘lacking in value’ and ‘absolutely valuable’ has developed” (WP 583, see also TI “Reason” 6, “World”). To have faith in “truth in itself” it is enough to affirm that coming to grasp a fully determinate, mind-independent world is the ideal for inquiry. It is to take the true world of being as the “ideal world” (EH P: 2, see also TI “Reason” 1).

Nietzsche claims that science has had “no other goal” guiding scientific investigation outside the ascetic ideal. Thus, if metaphysical realism is the result of the ascetic faith in truth, then metaphysical realism seems to provide science with a “value-ideal . . . in the service in

which [science] could *believe* in itself” (GM III: 25). Metaphysical realism provides the scientific enterprise with “a direction,” or “a *right* to exist,” by offering a set of ontological, semantic, and epistemological criteria our best theories should embrace (GM III: 24). The problem, on Nietzsche’s account, is that the criteria are life-negating. They affirm the presence of a true world of being, and in doing so express “a longing to get away from all appearance” which “deprive[s] reality of its value” (GM III: 28). Hence it seems that any conception of science that affirms metaphysical realism is nihilistic.

2.5 THE OVERESTIMATION READING

The end of the third essay of GM is difficult to decipher and it often gives rise to conflicting interpretations. One reading, which differs from my own interpretation, seems to follow intuitively from some of Nietzsche’s remarks. The issue concerns what Nietzsche means when he says science’s commitment to “faith in a *metaphysical* value, the value of *truth in itself*” entails commitment to the ascetic ideal (GM III: 24). I have argued that this means modern conceptions of science value metaphysical realism. Call the Overestimation Reading the position that Nietzsche thinks science and truth have been more highly valued than they deserve to be (see Janaway 2007: 231; Nola 2005: 207).

The Overestimation Reading derives from Nietzsche’s claim that science and the ascetic ideal rest “on the same belief that truth is inestimable and cannot be criticized” (GM III: 25). On this interpretation, science is ascetic because it is a truth-seeking enterprise and the value of truth has been overestimated. Science lauds truth as the ultimate ideal of evaluation. Through the influence of science we have come to believe our systems of belief should exemplify truth. Yet, Nietzsche holds that there are systems of evaluation best guided by other values, such as
aesthetic values (see, e.g., GS 373). He also believes it may sometimes be better to hold false beliefs over true ones (see, e.g., BGE 4). In virtue of this, Nietzsche maintains that we must *depreciate* the value of truth in a trial manner: “the value of truth must be experimentally *called into question*” (GM III: 24). To depreciate the value of truth is to recognize that there are times when truth should be denied an overriding role in our evaluative practices and instead played off against other values. We must deflate faith in “the value of *truth in itself*,” that is, we should stop valuing truth independent of other evaluative considerations. Truth is an important criterion of evaluation, but it is not always the most important.

It is undoubtedly true that for Nietzsche truth is not the sole criterion for assessing the world (see, e.g., GS 107; BGE 1, 4). However, I suggest, the Overestimation Reading is not the most plausible interpretation of Nietzsche’s understanding of the relation between science and the ascetic ideal. Nietzsche defines the mature incarnation of the ascetic ideal as an ideal that denigrates “our world” by valorizing some “other world” (see GM III: 10, 24; GS 344). But one might overestimate the value of truth and simultaneously reject commitment to any sort of transcendental realm, or depreciate the value of truth and remain committed to such a realm. Hence on the Overestimation Reading it is hard to see why faith in truth entails commitment to the ascetic ideal.

Christopher Janaway has a three-part response (2007: 235-239). His main reply is that the truth-ideal of science and the ascetic ideal have “parity of structure” (ibid, 236). For example, Janaway says that on Nietzsche’s account “the priest believes in a realm of higher, divine value, the truth-idealist in the unconditional value of the pursuit and attainment of true beliefs” (ibid). Parity of structure, though, does not imply commitment to some otherworldly ontology. And even if it did, this example fails to exemplify such parity. The priest’s belief in a realm of divine
value presupposes commitment to God or a metaphysical world, whereas the truth-idealist’s belief in the unconditional value of gaining true beliefs is consistent with a rejection of such a world. Janaway next claims that the truth-ideal and the ascetic ideal are “physiologically parallel” because they both demand an affective detachment from life (ibid, 237). Nietzsche does add this physiological point to his discussion in GM III: 25. However, he does so as a consequence of commitment to “truth in itself,” not to explain why science embraces the ascetic ideal. A proper explanation of why science embraces the ascetic ideal requires discussing what gives scientific inquiry a “right to exist,” and self-flagellation does not figure into this explanation.97 The third claim Janaway make is that the truth-ideal and the ascetic ideal both operate on a moral imperative to tell the truth. Yet, Janaway does not attempt to show why a Christian-moral conception of truthfulness leads science to affirm some metaphysical realm. This argument is needed to explain Nietzsche’s claims that the ascetic ideal covets another world and that science is ascetic. For these reasons, then, I do not find Janaway’s reading convincing.

The Overestimation Reading lacks the resources to mount a good response to the challenge. It is primarily concerned with whether or not truth is a desired property of belief. But there is a disparity between truth as a desired property of belief and what constitutes the criterion of the truth of a belief. Nietzsche is able to claim that science is committed to the ascetic ideal only if he targets what constitutes the criterion of the truth of a belief. It is not likely that settling the issue of whether or not truth is a desired property of belief commits one to either affirming or denying the existence of something like a metaphysical realist ontology, while, on the other hand, deciding what criteria constitutes the truth of a belief likely requires such an affirmation or

97 Janaway seems to put the most weight on this argument about the parallel forms of self-flagellation because his book explicitly concentrates on Nietzsche’s attack on selflessness in modern moral systems (see, e.g., 2007: 18-19, 40ff.). I suspect that this presupposition greatly prejudices his reading of the third essay.
denial. My reading of the third essay of GM rests in part on the issue of what delimits the truth conditions of a belief. Nietzsche’s view that an ascetic conception of science affirms metaphysical realism implicates the conception of truth itself in certain scientific and religious frameworks.

My interpretation also allows for an alternative way to understand the main passage that seems to lend intuitive support to the Overestimation Reading. According to Nietzsche science and the ascetic ideal rest on the belief that “truth is inestimable and cannot be criticized” (GM III: 25). On my reading, this makes sense because if something is true regardless of our relation to it, then its status as being true could not possibly be assessed or impugned by us. It would be in principle not estimable by any knower, and as a consequence not of this world.\textsuperscript{98} Hence commitment to the view that we cannot possibly assess truth entails commitment to some otherworldly realm.

2.6 TOWARD LIFE-AFFIRMING SCIENCE

Which conception of science does Nietzsche regard as life-affirming? A necessary condition of Nietzsche’s life-affirming conception of science is rejecting metaphysical realism. How do the Positive View and Skeptical View claim Nietzsche meets this condition? In this section, I examine this question and conclude that each approach fails adequately to capture Nietzsche’s view. The following section begins to offer my own understanding of Nietzsche’s life-affirming conception of science.

\textsuperscript{98} I don’t think Nietzsche’s comment that “the value of truth must be experimentally called into question” does any special work in supporting the Overestimation Reading, but, to be sure, on my view it makes sense because Nietzsche thinks the value of believing successful science will exemplify truths describing a theory-independent world must be challenged. Such a value must be called into question because it is flatly incoherent.
The Skeptical View and Positive View disagree about what is required to overcome metaphysical realism. For Heidegger, Nietzsche dismisses metaphysical realism by rendering artistic evaluations superior to truth claims. Insofar as science aims to generate truths about the world, there cannot be a life-affirming conception of science. For Deleuze the attempt to achieve a third-person perspective on the world supports metaphysical realism because it implies a “view from nowhere” consistent with a completely mind-independent world. On this account, a life-affirming conception of science is one that retains some robust form of the first-person standpoint. A conception of science that adopts the traditional thesis of perspectivism satisfies this criterion.\textsuperscript{99} Perspectival knowledge claims necessarily reflect inquirers’ interests. Clark and Leiter also hold that a conception of science that affirms perspectivism is life-affirming. More specifically, they contend that Nietzsche argues against metaphysical realism by appealing to perspectival realism. Hence for the Positive View a life-affirming conception of science is one that affirms perspectival realism.\textsuperscript{100}

Both approaches get something right about Nietzsche’s view but fail to provide a plausible interpretation of his position overall. I have already presented evidence to suggest Heidegger’s reading is mistaken (see Chapter 1).\textsuperscript{101} Nietzsche does not hold that scientific claims should be made inferior to artistic evaluations \textit{tout court}. But it is crucial to retain a

\textsuperscript{99}Deleuze does not appeal to perspectivism in this context, but his remarks about life-affirming science assume perspectivism. For Deleuze, a non-ascetic conception of science is one that produces a “symptomatology” of the motivations that lead to particular conceptions of science, a “typology” of the kinds of those motivations (“active” or “reactive”), and a “genealogy” of the motivations as having a history in particular sets of power-relations (Deleuze 1983: 75).

\textsuperscript{100}See Clark (1990): 179; Leiter (2002): 268-276. Most commentators who support the Positive View would agree, though readers such as Anderson (1996) would not. He rejects perspectival realism.

\textsuperscript{101}There is an arguable exception to my view in GM III: 24. Nietzsche contrasts the “free spirits” who “still have faith in truth” with the Assassins of the Middle East at the time of the Crusades. He claims there are “free spirits \textit{par excellence}” because they think, “nothing is true, everything is permitted,” so, with them, “the belief in truth was dismissed” (GM III: 24). However, Nietzsche mentions this as just one case of overcoming the faith in truth, and it does not seem to be his own. His position is to call “the value of truth” (GM III: 24) into question in an experimental manner, not truth itself (see also Clark 1990: 159ff.; Leiter 2002: 13ff., 264ff.).
central insight of Heidegger’s reading of Nietzsche for later chapters. Unlike the Positive View, Heidegger at least attempts to account for Nietzsche’s position that “art” is “much more fundamentally opposed to the ascetic ideal than is science” (GM III: 25). Nietzsche suggests a life-affirming conception of science must somehow take into consideration artistic discourse. I have argued that this is crucial for understanding his positive conception of science (Chapter 1).

The Positive View maintains that Nietzsche’s life-affirming conception of science affirms perspectivism, and it is silent about whether or not science should be assessed from the standpoint of art. The Positive View stresses that according to Nietzsche there is “only a perspective ‘knowing,’” so it is “an absurdity and nonsense” to posit “a realm of truth and being,” or an ontology in principle inaccessible by our perspectives (GM III: 12).

I agree that Nietzsche’s life-affirming conception of science affirms perspectivism, but not perspectival realism. Perspectival realism affirms the ontological, semantic, and epistemological criteria for what our best theories should embrace also affirmed by metaphysical realism insofar as both forms of realism endorse objectivist realism, and I hope to show that objectivist realism is nihilistic. Perspectival realism, I contend, cannot form the basis of Nietzsche’s life-affirming conception of science.

If Nietzsche were not just targeting metaphysical realism in the third essay of GM, but perspectival realism and metaphysical realism, his remarks on the relationships between asceticism, Christianity, and modern science would truly be as radical as he intends. Many philosophers of science rightly contend that science is simply not committed to metaphysical realism. For this reason, some commentators maintain that Nietzsche’s arguments fail to do any genuinely interesting philosophical work. For instance, Nola maintains that if metaphysical

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102 Nietzsche scare-quotes ‘knowing’ because he is arguing that there is no such thing as “knowledge in itself” (GM III: 12).
realism is the target of the third essay of GM, Nietzsche is guilty of “foisting on us a view of
science and truth that is misleadingly associated with some ‘other world’” (2005: 214). This
charge would not hold if Nietzsche were aiming to attack perspectival realism as well as
metaphysical realism. Many philosophers of science argue that science is committed to some
form of perspectival realism.\textsuperscript{103} Ronald Giere, for example, defends a brand of perspectival
realism supported by the ontological assumption that “there is, after all, only one world, and it
has some one structure or another” (Giere 1999: 83). If Nietzsche were rejecting perspectival
realism and offering a different and arguably better way to understand the scientific project, then
he may truly be offering something novel to the philosophy of science. This central issue to
examine is whether or not Nietzsche rejects perspectival realism, and if so, what informs his life-
affirming conception of science.

2.7 SKETCH OF LIFE-AFFIRMING SCIENCE

This section sets up Nietzsche’s rejection of perspectival realism by examining his
understanding of perspectivism’s relation to objectivist realism.\textsuperscript{104} I finish by offering my own
interpretation of what informs Nietzsche’s life-affirming conception of science.

Nietzsche says the following about a perspectival conception of knowledge in GM. He
says “seeing becomes seeing \textit{something}” by virtue of “active and interpreting forces,” and “there
is \textit{only} a perspective seeing, \textit{only} a perspective ‘knowing’” (GM III: 12). \textit{Interpretation} is a

\textsuperscript{103} See, e.g., van Fraasen (1980); Putnam (1982); Nola (2005); Giere (1999), (2006); Teller (2008a).
\textsuperscript{104} I will assume that the traditional thesis of perspectivism, as far as it goes, is accurate. The position I want to
establish and defend in chapters to come, however, is that knowledge claims involve a \textit{constitutive} and not mere
\textit{conditional} relation between our perspectives and objects of experience.
necessary feature of any knowledge claim. Later Nietzsche remarks, “the essence \([\textit{Wesen}]\) of interpreting” involves “doing violence, pressing into orderly form, abbreviating, omitting, padding, fabricating, [and] falsifying.” Interpretation is in part something that consists in certain features that fix representational boundaries. Call these \textit{world-framing} features. Interpretation is a necessary feature of any knowledge claim, so it seems that for Nietzsche knowledge claims are some framed portion of the world in experience.

The world-framing aspect of Nietzsche’s conception of interpretation, which informs his perspectival conception of knowledge, is crucial for understanding his life-affirming conception of science. The ascetic faith in truth presumes that genuine knowledge of the world consists in part in propositions that are true in virtue of corresponding to some completely determinate, mind-independent world. Nietzsche claims that those constrained by an ascetic faith in truth attempt to deny the world-framing features of interpretation. The “general renunciation of all interpretation (of doing violence, pressing into orderly form, abbreviating, omitting, padding, fabricating, falsifying, and whatever else is of the essence of interpreting),” Nietzsche writes, exemplifies “ascetic virtue” motivated by “faith in a metaphysical value, the value of \textit{truth in itself}” \(\text{GM III: 24}\). It appears that those compelled by an ascetic faith in truth must reject the world-framing features of interpretation because they render the kind of correspondence the ascetic faith in truth desires impossible.

My ultimate aim is to show that this sort of correspondence is impossible because the world-framing aspect of interpretation makes it the case that there is a constitutive relation

\footnote{See also LN 2[86]: “What alone can ‘knowing’ be? ‘Interpretation’, not ‘explanation’.” In the first chapter, I tried to show why Nietzsche thinks “explanation” does not deliver knowledge. See also Cox (1999): 241-242. \footnote{I’ve modified the translation of “\textit{auf das Vergewaltigen, Zurechtschieben, Abkürzen, Weglassen, Ausstopfen, Ausdichten, Umfälschen}.” Kaufman’s reads “forcing, adjusting, abbreviating, omitting, padding, inventing, [and] falsifying” \(\text{GM III: 24}\).}
between the objects of inquiry and our interpretations. If those guided by an ascetic faith in truth must reject interpretation, then they must also reject objectivist realism. The objectivist realist position that knowledge consists in part in propositions that are true in virtue of corresponding to a determinate world constitutively independent of our interpretations will have to reject the view that interpretation constitutively affects the objects of our knowledge claims. If my view were plausible, then objectivist realism would exemplify an ascetic faith in truth. Moreover, since Nietzsche’s life-affirming conception of science opposes the ascetic faith in truth, on my reading there would be good reason to think it also opposes objectivist realism. This suggests that Nietzsche’s life-affirming conception of science adopts the view that there is a constitutive relation between the objects of inquiry and our knowledge claims. If so, then perspectival realism cannot form the basis of Nietzsche’s life-affirming conception of science.

2.8 LAST REMARKS

The basic argument of this chapter is as follows:

1. Nihilism is fundamentally a result of the realization that the way the world is prevents many people from realizing their highest values.
2. Life-negating values are those highest values that the world prevents many people from realizing.
3. The true world of being is a life-negating value.
4. Science that affirms a form of the true world of being (e.g. OR_0) is nihilistic.
5. Science affirms a form of the true world of being (e.g. OR_0).
6. Science is nihilistic.

The conclusion is significant because in means overcoming nihilistic conceptions of science is a necessary condition for overcoming nihilism in general. Nietzsche leaves open the possibility of overcoming nihilistic conceptions of science because the fifth premise need not be true. A conception of science that does not affirm values essentially associated with the true world,
unlike metaphysical realism, and, I submit, perspectival realism, is likely to be life-affirming. My claim is that rejecting objectivist realism is a necessary condition of Nietzsche’s life-affirming conception of science.

An argument against objectivist realism fundamentally requires denying its ontological thesis that the world has a completely determinate structure constitutively independent of our perspectives (OR₀). Nietzsche begins to reject OR₀, I argue, by offering an alternative ontology. He embraces becoming [Werden] in contrast to being [Sein]. Being refers to an otherworldly true world, while becoming refers to the imminent, empirical world (see TI “Reason” 1, 2, 5; EH “Books,” BT: 3; PT: 5; GM III: 11; GS 344). Two points follow from this contrast. The first is that because the true world is determinate, becoming appears to be indeterminate. Recall that Nietzsche criticizes Spinoza, for instance, by appeal to the indeterminacy of becoming. The second point is that because the true world is nihilistic, becoming seems to be non-nihilistic. Indeed, I suggested that Nietzsche thinks becoming plays an essential role in overcoming life-negating values. In addition, the third essay of GM concludes with the assertion that the ascetic ideal expresses “a longing to get away from all . . . becoming” (GM III: 28). And in his notes Nietzsche remarks, “logical world-denial and nihilation [Nihilisierung] follow from the fact that . . . ‘becoming’ is denied” (WP 580, cf. TI “Reason” 1).

In sum, Nietzsche appears to understand becoming as an ontological conception of the empirical world that is somehow indeterminate and non-nihilistic. This characterization is examined in the next chapter in order to understand Nietzsche’s ontology in relation to his life-

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107 This is an oversimplification. He actually thinks the “faith in opposite values” marks life-denying metaphysicians. There is nonetheless textual evidence for this simplification, and it helps to get my view up and running. Later I clarify that the relation between being and becoming is that our perspectives establish a determinate ontological order (being) within a fundamentally indeterminate world (becoming).
affirming conception of science, in particular a conception of science that adopts the view that there is a constitutive relation between the objects of inquiry and our knowledge claims.
CHAPTER 3
WILL TO POWER AND SCIENCE

In this chapter, I develop Nietzsche’s fundamental ontology in order to understand its relation to his life-affirming conception of science. I have previously suggested that Nietzsche favors an ontology of becoming over a true world of being because the true world is nihilistic. To defend this position, I begin this chapter by arguing against a reading which claims that for Nietzsche becoming exemplifies principles essentially associated with a true world of being. Afterward, I describe Nietzsche’s conception of “will to power” as an ontological hypothesis that develops his understanding of becoming. The third part of the chapter addresses how Nietzsche’s apparently metaphysical realist claim that the world is will to power is consistent with his perspectivism. I finish by explaining why Nietzsche thinks will to power provides an ontological basis for a life-affirming conception of science.

3.1 THE TRUE WORLD OF BECOMING

I have claimed that Nietzsche’s ontology is a becoming in contrast to a true world of being. The true world of being is nihilistic, while, for some reason, becoming appears not to be. My contention is that Nietzsche’s conception of becoming is inconsistent with being and, consequentially, it is inconsistent with the objectivist realist ontological position that the world has a determinate structure constitutively independent of our perspectives (OR₀). Nietzsche claims that the world exists in a state of becoming, I submit, to overcome such nihilistic ontologies.
Alternatively, some neo-Kantian commentators argue that Nietzsche’s conception of becoming exemplifies principles essentially associated with a true world of being.\textsuperscript{108} George Stack, for instance, claims that Nietzsche is largely influenced by Lange, who, according to Stack, holds that the “true essence of things” is an “evanescent stream” of “unknowable becoming,” characterized as a “chaotic ‘manifold’ of sensory impressions” (1981: 80; see also 1991: 35). Thus, Lange appears to think fundamental reality is in principle inaccessible, and so unknowable, by our mode of cognition. Nietzsche appears to adopt Lange’s view when he remarks, “a world in a state of becoming could not, in a strict sense, be ‘comprehended’ or ‘known’” (WP 520, see also 517, 617), and “the world of which we can become conscious is only a surface and sign-world” (GS 354). If Nietzsche were to endorse Lange’s position, then he would be committed to some form of a true world of being, which, in contrast to my reading, would make it likely that he also embraces $OR_0$.\textsuperscript{109}

Does Nietzsche’s commitment to an ontology of becoming indeed commit him to $OR_0$? To answer this we first have to understand the ways in which the neo-Kantian interpretation of Nietzsche’s conception of becoming is similar to the Kantian true world of being. Lange adopts a version of Kant’s distinction between noumenal and phenomenal realms, which are two distinct ontologies. Kant’s noumenal realm is essentially associated with two interrelated principles: it is constituted by (i) fully determinate objects that are (ii) unconditioned by our mode of cognition (see Chapter 2.3).


\textsuperscript{109} See Cox (1999): 170-176 for a further discussion about the historical, textual, and critical reasons for this neo-Kantian interpretation.
Does the neo-Kantian reading of Nietzsche’s conception of becoming commit Nietzsche to the principle that the world contains fully determinate objects? The answer seems to be ‘no’. Neo-Kantians typically consider Nietzsche’s conception of becoming to be an ontology of constant change that consists in qualitative alteration (see, e.g., PP “Heraclitus”; PT 5-7; TI “Reason” 1, 2).

‘Qualitative alteration’ indicates that properties of objects are somehow in flux. In an early work, for example, Nietzsche cites Heraclitus’ idea approvingly that “If everything is in Becoming, then, accordingly, predicates cannot adhere to a thing but rather likewise must be in the flow of Becoming” (PP p. 65). This reading of change is inconsistent with the principle that the world contains precisely specified objects, presumably because for any object that instantiates a particular set of properties, would not endure over time. Neo-Kantian commentators hold that for Nietzsche becoming is an ontology in which, maximally, there cannot be objects (see Stack 1991: 38; cf. Richardson 1996: 77, 2006: 211-215; Braver 2007: 130), or minimally, there can only be indeterminate objects (see Danto 1965: 96; Nehamas 1983: Ch. 3). So, Nietzsche’s conception of becoming does not seem to be committed to the first principle of the Kantian true world of being. It is also incompatible with OR, which in part holds that the world has a completely determinate structure. With respect to the first principle exemplified by Kant’s true world, then, the neo-Kantian reading of Nietzsche’s conception of becoming is compatible with my claim that Nietzsche does not embrace OR.

Consider the second principle essentially associated with Kant’s noumenal realm, which I call the Ontological Independence Principle (OIP). If an ontology instantiates OIP, is

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110 Each commentator listed in the first endnote above hold this to be true in some form or another.

111 Nietzsche does not think becoming, at the most basic level of reality, develops in any teleological sense (see, e.g., WP 12, 708). However, in his later years he arguably does attribute some sort of teleology to the forces behind becoming (see below for an account of this and Richardson 2004 for a defense of a strong teleological view). Note also that in what follows I use ‘change’ and ‘flux’ interchangeably.
completely unconditioned by our mode of cognition, and although \( o \) supplies the ultimate ground for our knowledge claims, \( o \) cannot itself be known.\(^{112}\) The neo-Kantian reading of Nietzsche’s conception of becoming commits Nietzsche to at least some version of OIP.\(^ {113}\) It is important to understand exactly which version the neo-Kantians attribute to Nietzsche. For starters, they argue that Nietzsche is ontologically committed only to the empirical world, not some extra-empirical realm. Thus, they maintain that the empirical world itself is unknowable.

The most sophisticated illustration of this position is defended by R. Lanier Anderson (2002, 2005). Anderson maintains that for Nietzsche there is a realm of sensory material completely unconditioned by our \textit{phenomenal} mode of cognition, that is, conscious experience, and although this sensory realm is the foundation of our phenomenal mode of cognition, it cannot itself be known (2002, 2005: 187-192).\(^ {114}\) Evidence for Anderson’s reading is found in Nietzsche’s notes: “The antithesis of [the] phenomenal world is not ‘the true world,’ but the formless unformulable world of the chaos of sensations – another kind of phenomenal world” (WP 569). According to Anderson this passage shows Nietzsche to be committed to an immanent world, dual-realm ontology. He says “the underlying domain that gets ‘falsified’ by perspectival transformation is not a world of independent \textit{objects}, with a determinate \textit{constitution in themselves}, but ‘another kind of phenomenal world’ (WP 569), which is constituted by the \textit{contents} provided from the ‘chaos of sensations’” (2005: 190). Our conscious perspectives necessarily falsify sense data because they cannot correspond with the way reality really is. Anderson remarks, “Despite Nietzsche’s refusal to posit an independent world ‘in itself’, the raw material of sense still has a claim to present what is distinctively real in our

\(^{112}\) “Completely unconditioned” is \textit{salva veritate} with “ontologically distinct” (see Chapter 2.3).

\(^{113}\) For a recent version see Braver (2007): 126.

experience . . . we rightly associate [the contents of sense] with the reality of things” (2005: 191).

Reality is completely unconditioned by our phenomenal mode of cognition because, according to Anderson, “Nietzsche assigns the ultimate sensory content to unconscious sense impressions . . . and that is why consciousness by itself is already supposed to have a falsifying effect” (ibid).

The connection to Lange’s position is clear: Nietzsche seems to hold that the fundamental level of reality is a “chaos of sensations,” or a manifold of ceaselessly changing sensory impressions, the contents of which inform phenomenal experience, but are phenomenally inaccessible.\(^{115}\)

Call the neo-Kantian view of Nietzsche’s conception of becoming under consideration the True World of Becoming Reading. On this reading, Nietzsche is ontologically committed to an empirical realm of becoming (whatever this might be) that instantiates OIP. If Nietzsche’s conception of becoming instantiates OIP, then there would be good reason to think that he embraces what I have argued is a nihilistic conception of what there is (despite not being committed to OR\(_O\)), since true world of being instantiates OIP. In what follows, I suggest Nietzsche’s conception of becoming does not instantiate OIP because for Nietzsche becoming is perfectly accessible to our phenomenal mode of cognition.

3.1.1 Nietzsche’s Conception of Becoming

To understand Nietzsche’s conception of becoming it is important to be sensitive to his relation to Heraclitus.\(^{116}\) In Ecce Homo (1888) Nietzsche proclaims it is Heraclitus

in whose proximity I feel altogether warmer and better than anywhere else. The affirmation of passing-away and destroying . . . saying Yes to opposition and war;

\(^{115}\) See, e.g., Braver (2007): 141-144, 529n16. The neo-Kantian reading commits Nietzsche to Cratylus’ view, who says “about that which changes no true statement can be made” (Aristotle, Metaphysics 1010a 6-9).

\(^{116}\) See Richardson (1996): 73-89, Cox (1999): 184-212, and Small (2010): 17-33 for different but compelling arguments about the details of Nietzsche’s conception of becoming in relation to Heraclitus. Since my aims are different than theirs – that is, my goal is to show that becoming is not nihilistic – I will not follow them.
becoming, along with a radical repudiation of the very concept of being – all this is clearly more closely related to me than anything else thought to date (EH “Books,” BT 3).

Nietzsche praises Heraclitus for affirming becoming while rejecting being, and he asserts that his own view is closest to that of Heraclitus. This suggests Heraclitus’ conception of becoming and rejection of being is similar to Nietzsche’s own view. Hence it seems helpful to look to Heraclitus to understand Nietzsche.

Nietzsche gives a sustained treatment of Heraclitus in Philosophy in the Tragic Age of the Greeks (1873). The text defends Heraclitus’ notion of becoming against conceptions of being proposed by Anaximander and Parmenides. The case against Anaximander is important with respect to my purposes for two reasons. First, Nietzsche asserts that Anaximander’s conception of being is “equal” to the Kantian thing in itself (PT 4, my emphasis). Second, Nietzsche claims that Anaximander rejects an ontology of becoming, which is Heraclitus’ ontology. Nietzsche remarks that for Anaximander “all becoming [is] an illegitimate emancipation from eternal being” (PT 4). Thus, if Nietzsche does indeed defend Heraclitus against Anaximander, then there is at least prima facie reason to think Nietzsche’s conception of becoming does not instantiate OIP.

In PT Nietzsche follows Aristotle in taking Anaximander to be a material monist. Material monism is the thesis that the universe consists of one and only one material substance. Anaximander appears to be a material monist because he embraces the claims that (i) everything in the universe is essentially identical to an indefinite primordial material substance called

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117 Philosophy in the Tragic Age of the Greeks was a series of lectures left unpublished that Nietzsche returned to and edited numerous times throughout the 1870’s. The text contains views that he retained throughout his mature work, such as naturalism (see BGE 230); empiricism (see BGE 154); nominalism (see GS 58); anti-dualism (see BGE 2); the repudiation of being and the acceptance of becoming (see Tz “Reason” 2); and the derision of moral interpretations of the world (see Å 26);

118 For a classic interpretation of Anaximander as a material monist see Aristotle Phys. Aa, 187a12.
apeiron, (ii) everything in the universe comes from and terminates into *apeiron*, and (iii) there is no unqualified coming to be or perishing, that is, there is only alteration of *apeiron*.\textsuperscript{119} Anaximander holds that the formation of the cosmos is due to something “separating off” from the *apeiron* and producing the elements *hot* and *cold*, which then founds the empirical world.\textsuperscript{120} So *apeiron* gives rise to – and ultimately reclaims – the ingredients that constitute the empirical world. Nietzsche discusses this as follows:

Wherever definite qualities [e.g. hot and cold] are perceivable, we can prophesy, upon the basis of enormously extensive experience, the passing away of these qualities. Never, in other words, can a being which possesses definite qualities or consists of such be the origin or first principle of things. That which truly is, concludes Anaximander, cannot possess definite characteristics, or it would become and pass away like all the other things. In order that becoming shall not cease, primal being must be indefinite. The immortality and everlastingness of primal being [lies] . . . in the fact that it is devoid of definite qualities . . . This ultimate unity of the “indefinite,” the womb of all things, can, it is true, be designated by human speech only as a negative, as something to which the existent world of becoming can give no predicate. We may look upon it as the equal of the Kantian *Ding an sich* [thing in itself] (PT 4, my gloss in brackets, cf. PP p. 32-38).

By the end of the selection Nietzsche moves from simply explicating Anaximander’s position to arguing against its intelligibility from the point of view of becoming. The argument seems to be this. If something possesses identifiable properties, then experience shows it is finite; by hypothesis, *apeiron* is infinite; so, *apeiron* cannot possess identifiable properties. *Apeiron* is qualitatively indefinite. Nietzsche points out that something qualitatively indefinite, however, also resists meaningful predication. Assuming predicates name properties of things, any predicate applied to something that cannot possess identifiable properties must be a predicate void of meaningful content. We can have no meaningful description of something independent of all predication, in which case we can have no meaningful description of Anaximander’s conception of *apeiron*.

Yet *apeiron* does give rise to things with identifiable properties, such as hot and cold, which can be meaningfully described. Unlike *apeiron*, hot and cold are finite qualities of the “world of becoming” (PT 4). For Nietzsche subtracting all becoming-implying characteristics from something results in its being independent of all contentful predication. Since we exist in a world of becoming, talk of *apeiron* will be designated by a mere “negative” (PT 4). A meaningful description of something can only be established from within the world of becoming, so a description of something apart from the world of becoming is meaningless. Nietzsche remarks that *apeiron* is “something that cannot be given any predicate from the actual world of becoming” (PP p. 33); and later, “the characteristics which have been given to the ‘true being’ of things are the characteristics of non-Being, of nothingness” (TI “Reason” 6). Nietzsche considers this sufficient for showing that Anaximander’s *apeiron* is unintelligible – just like Kant’s thing in itself.121

In sum, Nietzsche uses Anaximander’s conception of becoming to illuminate the unintelligibility of Anaximander’s position. It is important to notice that Nietzsche’s argument implies that the world of becoming does not exist independent of our phenomenal mode of cognition. The ontological realm of becoming is “perceivable” and consists in qualities we “experience” and can meaningfully describe (PT 4). Unlike Lange, Nietzsche does not seem to think that becoming informs phenomenal experience but is phenomenally inaccessible. That is, becoming does not instantiate OIP.

Nietzsche defends this conception of becoming by introducing Heraclitus. In contrast to “Anaximander’s problem of becoming,” Nietzsche contends that Heraclitus “denied the duality

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121 The criticisms he levies against Anaximander are isomorphic to those later waged against Kant (see, e.g., GS 54; BGE 16; GM III: 12; WP 555-560, 567). See Chapter 2.3 for Nietzsche’s argument against the Kantian true world. Cf. WP 574: “Senselessness of all metaphysics as the derivation of the conditioned from the unconditioned.”
of totally diverse worlds – a position which Anaximander had been compelled to assume” (PT: 5). Heraclitus “no longer distinguished a physical world from a metaphysical one, a realm of definite qualities from an undefinable ‘indefinite’” (ibid). He retains “one world,” which wholly characterizes the whole “the nature of things” (ibid). This world is “becoming,” and Nietzsche praises Heraclitus by proclaiming, “no one else has watched so attentively this everlasting wavebeat and rhythm of things” (ibid). He has Heraclitus say, “I see nothing other than becoming. Be not deceived. It is the fault of your myopia, not of the nature of things, if you believe you see land somewhere in the ocean of becoming and passing away” (ibid). Becoming is the phenomenally accessible empirical world.

According to Nietzsche, Heraclitus’ thinking “embraces” the “present many-colored and changing world that crowds upon us in all our experiences” (ibid). He points out that Heraclitus identifies properties encountered in everyday experience to defend his dynamic view of nature, such as “warm, wet, and fixed (Earth)”: “It is death to souls to become water, and it is death to water to become earth. Conversely, water comes into existence out of earth, and souls out of water” – where “soul” means “warm, ‘fiery’ breath” (PP p. 67, Heraclitus Fr. 36, Clement Strom. VI, 17, 2). Heraclitus regarded himself as having access to an all-important truth about the constitution of the world. He says men “always prove to be uncomprehending” about the “Logos which is as I describe it” and “when I distinguish each thing according to its constitution and declare how it is” (Kirk, Raven, and Schofield 2007: 187, Fr. 1, Sextus adv. math. VII, 132).

These passages reiterate that for Heraclitus becoming is an empirical realm whose properties are phenomenally accessible and can be encountered in experience. Heraclitus’s conception of becoming therefore does not instantiate OIP, and Nietzsche’s defense of Heraclitus provides a compelling reason to think his own conception of becoming does not instantiate OIP.
One might resist extending Heraclitus’ denial of OIP to Nietzsche. Yet in *Twilight of the Idols* (1888) Nietzsche embraces the Heraclitean conception of becoming in his own voice. He first claims that becoming refers to the empirical world. “Heraclitus will always be right that Being is an empty fiction. The ‘apparent world’ is the only one: the ‘real world’ has just been erroneously added on . . . (TI “Reason” 2, translation modified); “the ‘real world’ has been constructed from the contradiction of the actual world” (TI “Reason” 6); and “the real world – we have done away with it: what world was left? the apparent one, perhaps? . . . But no! with the real world we have also done away with the apparent one!” (TI “World” 6, cf. WP 566, 567).

The antithesis between true and apparent (e.g. noumenal and phenomenal) worlds dissolves once it is noticed that the true world is inherently unintelligible. The “apparent” world then becomes the “only one,” which, according to Anaximander, Parmenides, Plato, Kant, Lange, Schopenhauer, and others, is just the world of everyday experience. Nietzsche believes the true world was invented by such metaphysicians, who “pass sentence on this whole world of becoming as a deception” (WP 12, see also PT: 4; TI “Reason” 1; “Errors” 7, 8). This suggests that for Nietzsche becoming refers to an empirical realm accessible by mode of cognition (see also GM III: 11).

The neo-Kantians accept that for Nietzsche becoming refers to the empirical world, but deny that he thinks we can experience such a realm. Nietzsche rejects the claim that becoming is phenomenally inaccessible, however. He first remarks that metaphysicians often express a “hatred of the very idea of becoming,” partly because they downplay sensory information, which

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122 The “apparent” world is the empirical world that we experience for Anaximander, Parmenides, Plato, Kant, Schopenhauer, and Christianity (see Chapter 2.3). Note also that unlike the true world Nietzsche does not tend to think the apparent world has some fully determinate nature. He says it is an open question “whether there could not be many other ways of creating [the] ‘apparent’ world” (WP 569). However, the Positive View under consideration argues otherwise, and I will come to their view in the following chapters.
show the world to exist in a state of becoming (TI “Reason” 1). Nietzsche says that, “if the senses show becoming, passing away, change, they do not lie” (TI “Reason” 2). He then adds that the sciences study what the senses reveal to us: “We possess science nowadays precisely to the extent that we have decided to accept the evidence of the senses,” while “reality is nowhere to be found in [disciplines such as metaphysics, theology, etc.]” (TI “Reason” 3). These passages imply that science can grasp reality by accepting that our senses can reveal the world to exist in a state of becoming (see also HH I: 16). If becoming is disclosed through sense perception, however, then it is accessible to our phenomenal mode of cognition. Thus, Nietzsche’s conception of becoming does not instantiate OIP, and consequentially the True World of Becoming Reading is mistaken.

What about the passages cited earlier in support of the neo-Kantian position? Recall that Nietzsche writes, “the world of which we can become conscious is only a surface and sign-world” (GS 354), and, in the notes, “a world in a state of becoming could not, in a strict sense, be ‘comprehended’ or ‘known’” (WP 520). Although the conclusions Nietzsche aims to reach in these passages are ultimately distinct, both can be read as criticisms of the view that we can have knowledge of Kantian things in themselves. Nietzsche concludes GS 354 by saying that he is not “concerned with the opposition between ‘thing in itself’ and appearance: for we ‘know’ far too little to even be entitled to make that distinction.” The passage as a whole argues that we must think in language; we can only be conscious of a “surface and sign-world.” If so, then we cannot even meaningfully posit a realm fully divorced from phenomenal experience. In WP 520, Nietzsche claims that “only to the extent that the ‘comprehending’ and ‘knowing’ intellect encounters a coarse, already-created world . . . is there anything like ‘knowledge’.” So a “world

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123 This conclusion is consistent with my treatment of becoming in Chapter 1, where I argued that science generates knowledge of becoming.
in a state of becoming” could not be “‘comprehended’ or ‘known’” if knowledge of the world in a state of becoming requires apprehension of things independent of our constructive mode of cognition, which Nietzsche denies. Neither passage lends support to the True World of Becoming Reading – in fact, they attack assumptions crucial to that reading.

What about the passage Anderson cites from Nietzsche’s notes? Nietzsche says, “The antithesis of [the] phenomenal world is not ‘the true world,’ but the formless unformulable world of the chaos of sensations – another kind of phenomenal world” (WP 569). But there is no good evidence to think Nietzsche embraces this position in published works. Anderson only cites GS 354, which, I just argued, does not support the neo-Kantian reading – and no interpretation of Nietzsche that relies exclusively on the notebooks should be regarded as indicative of his considered position. In addition, Nietzsche’s published discussions of the antithesis of the “true world” and the “apparent world” do not support the notebook passage Anderson employs in his defense. For example, in TI, which is published around two years after the above notebook entry (1887), Nietzsche dedicates a section to discussing the antithesis of the “true world” and the “apparent world,” and not once mentions that the antithesis of the “true world” is some “phenomenal world” of a “chaos of sensations” (see TI “World”, see also “Reason” 2, 6). Hence WP 569 should not be regarded as Nietzsche’s final view of the matter.

I have argued that the True World of Becoming Reading, which holds that Nietzsche embraces a world of flux unconditioned by our phenomenal mode of cognition, is flawed. Yet there is something accurate about the spirit of the view that is worth noting. Nietzsche often remarks that our experience shows there to be discrete objects that persist through change, despite the fact, he professes, that the basic level of reality consists in some sort of ceaseless change. We tend to take our everyday experiences of objects to reveal what there is at the
fundamental level because, according to Nietzsche, conscious experience is a product of the need to communicate, and the subject-predicate structure of our language suggests that what exists are objects (subjects) that persist through changes (predicates) (see WS 11; GS 354; GS I: 13; TI “Errors”). The structure of our language informs our experiences, but for Nietzsche it also motivates us to posit an erroneous ontology. There are no discrete objects that persist through change. Of course, none of this implies that we cannot experience becoming – it is just difficult. As I have suggested, and will reiterate below, Nietzsche is confident that science can reveal that the world exists in a state of becoming, primarily because it has already.\textsuperscript{124}

The payoff of this section is that if Nietzsche’s conception of becoming is fundamentally unlike the true world of being, it is safe to retain my assumption that Nietzsche thinks that an ontology of becoming is not necessarily inherently nihilistic. Why exactly does Nietzsche believe such an ontology is life-affirming? The following aims to answer this question.

3.2 ONTOLOGY OF FORCES

In later years, Nietzsche comes to explain the view that the world exists in a state of becoming in terms of “will to power” \textit{[Wille zur Macht]}.\textsuperscript{125} In his notes, for example, he remarks that “will to power” is “the most elemental fact from which a becoming and effecting first emerge” (WP 635); it is in “will to power in which I recognize the ultimate ground and character of all change” (WP 685); and “we cannot imagine any change that does not involve a will to power. We do not know how to explain a change except as the encroachment of one power upon another power” (WP 689, see also 552; 715). This section describes Nietzsche’s conception of

\textsuperscript{124} It will emerge that Nietzsche simultaneously draws on evidence from current science and hypothesizes about what science will reveal (he does not think science should simply conform to his own view).

\textsuperscript{125} See also Schacht (1983): 207.
will to power an as ontology that explains his idea that the world consists in qualitative alteration. Nietzsche thinks the world conceived as will to power is constitutionally changing because it fundamentally consists in unstable configurations of bundles of forces. This does not imply that there are no stable structures anywhere in the world at any time, but only that no structure is permanent.

My project proceeds on the assumption that will to power is Nietzsche’s considered fundamental ontology. This assumption has been met with criticism. For instance, Leiter asserts that will to power is just a “piece of crackpot metaphysical speculation” (2002: 252). In addition, Clark argues that Nietzsche’s claim that the world is will to power is not supported by published texts and that will to power is incompatible with his commitment to perspectivism (1990: 205-244; 2009: 168, see also Magnus 1988: 233). One point to make in response is that Leiter overlooks the fact that there is substantial work being done in metaphysics defending similar kinds of ontologies. Moreover, central features of Roger Boscovich’s point atomism, which had a substantial influence on Nietzsche’s own ontology, have become, in some form, important elements of contemporary physical theory. This seems to provide reason enough at least to begin a serious investigation of Nietzsche’s ontology. And Clark’s reading has come under criticism. It is at least the case that Nietzsche wants us to take his fundamental ontology

126 See Mellor (1974); Mumford (1998); Ellis (2001), Molnar (2002); Doyle (2009).
128 Richardson (1996): 8-9, 18n4; Poellner (1995): 22-23; Anderson (1996); Hales and Welshon (2000): 62-63; Schacht (2000); Hill (2007): 105-106; Dolye (2009): Ch. 4. For example, while Clark claims the will to power ontology cannot be meant to be a true thesis about the way the world is, Anderson (1996) points out that Nietzsche appeals to the will to power ontology in order to say certain views are false (see, e.g., BGE 168), which presupposes that Nietzsche thinks the will to power captures what is really the case. Moreover, through a careful reading of Nietzsche’s published discussions about will to power, Schacht (2000) has convincingly claimed that Nietzsche intends the will to power to be taken seriously at least as a falsifiable ontological hypothesis. Finally, Hales and Welshon (2000): 102-107 have argued that Clark’s reading of BGE 36 – her main passage of defense – is problematic. None of this means, of course, that the will to power is a tenable ontological hypothesis, but it does severely challenge Clark’s interpretation.
seriously. Consider the following remarks from published works. Nietzsche has Zarathustra offer will to power as a “teaching [Lehre]” about the general conception of “life and the nature of all living” (Z II: “On Self-Overcoming”, see also BGE 13). In Beyond Good and Evil, he asserts that will to power is “my proposition [Satz],” and “the world viewed from inside, the world defined and determined according to its ‘intelligible character’ – it would be ‘will to power’ and nothing else” (36). He also claims we live in “a world whose essence [Essenz] is will to power” (186), and later “life simply is will to power” (259). In On The Genealogy of Morality, he says, “in all events a power-will is operating” and “the essence of life” is “will to power” (II: 12). In The Gay Science he remarks that, “the great and small struggle revolves everywhere . . . in accordance with the will to power, which is simply the will of life” (349, cf. 118). And in The Antichrist he says “life itself” is “will to power” (6, cf. 2). Nietzsche appeals to the truth his fundamental ontology as an explanatory principle in a plurality of instances and in a wide range of contexts in published material (see BGE 13, 19, 22, 23, 47, 51, 230; GM I: 13; A 7, 17). Given this evidence, it is reasonable to assume Nietzsche endorses the soundness of his “teaching.”

I interpret Nietzsche’s will to power ontology to be the thesis that the world is fundamentally composed of unstable configurations of bundles of forces. I now attempt to explain each feature of the hypothesis, which at times requires defending Nietzsche’s view against obvious objections. I proceed by investigating the features of will to power architectonically – by first looking at what it means to be a force, then a bundle of forces, configurations of bundles of forces, and finally unstable configurations of bundles of forces. The full characterization returns to the question about how will to power explains Nietzsche’s position that the world exists in a state of becoming.
I rely on the *Nachlass* for the discussion in addition to published writings, and flesh out Nietzsche’s view with published material whenever possible. Nietzsche mostly spells out the details of his view in the notes (see, e.g., WP 567, 568, 619, 634, 635, 644, 689, 1067). If one takes the published evidence seriously, it seems warranted to reference notebook passages. Commentators who have followed this strategy have shown that the unpublished details of Nietzsche’s ontology consistently extend to published texts to help illuminate many themes therein.\(^{129}\) It therefore seems justified to use the *Nachlass* to best understand Nietzsche’s position.

Consider the following passages. These begin to describe the central features of Nietzsche’s will to power ontology:

This world: a monster of energy . . . as force throughout, as a play of forces and waves of forces . . . a sea of forces flowing and rushing together, eternally changing . . . *This world is the will to power – and nothing besides!* And you yourselves are also this will to power – and nothing besides! (WP 1067)

All events, all motion, all becoming, as a determination of degrees and relations of force, as a struggle (WP 552).

Every center of force adopts a perspective toward the remainder . . . the ‘world’ is only a word for the totality of these actions. Reality consists precisely in this particular action and reaction of every individual part toward the whole – (WP 567)

The degree of resistance and the degree of superior power – this is the question in every event . . . A quantum of power is designated by the effect it produces and that which it resists (WP 634).

No things remain but only dynamic quanta, in a relation of tension to all other dynamic quanta: their essence lies in their relation to all other quanta . . . the will to power [is] a *pathos* (WP 635).

“Will to power” . . . [where] every power draws its ultimate consequences at every moment (BGE 22).

\(^{129}\) See Poellner (1995); Richardson (1996); Cox (1999); Nola (1999); Hales and Welshon (2000); Doyle (2009); Schacht (forthcoming).
... whatever exists, having somehow come into being, is again and again adjusted to new ends, newly taken over, transformed and put to new uses by some power superior to it... in all events a power-will is operating (GM II: 12, translation modified).

In these passages, Nietzsche asserts that the world fundamentally consists in forces [Kräfte] that exist in bundles and influence other forces. He takes forces to be the logically simple, irreducible units of reality. I will look at four features of forces: their dispositional nature (directedness); their ability to exist despite being manifest (force-manifestation independence); their reality rather than mere potentiality (actuality); and their existence as events rather than substances or material existents (ungrounded). The justification for choosing these particular features is fourfold. First, each feature is constitutive of Nietzsche’s understanding of the identity of a force. Second, understanding these features is vital for coming to a perspicuous understanding of Nietzsche’s ontology as a whole. For instance, I will later argue that their dynamic nature explains why for Nietzsche configurations of bundles of forces are ultimately unstable, or why Nietzsche thinks reality ultimately exists in a state of becoming. A third reason is that each feature provides the resources for comprehending some of Nietzsche’s most

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130 Notice I refer to forces instead of powers, unlike Doyle (2009). It is important to disambiguate Nietzsche’s view from contemporary metaphysical views of powers understood as dispositions. As Nola (1987): 530 rightly says, Nietzsche’s “idea of power [is] as a ceaselessly active drive and not a disposition which may be active only in certain conditions” (cf. WP 636). To a certain extent Nietzsche’s conception of “power” [Macht] and “force” [Kraft] are coextensive in virtue of the fact that both refer to directionality toward some end or other. At times Nietzsche seems simply to use power as substitutable salva veritate for force. He says, for example, that “every specific body strives to become master over all space and to extend its force (– its will to power)” (WP 636, cf. 686, 1067); and “a quantum of force is equivalent to a quantum of drive, will, effect” (GM I: 13). Other passages are more subtle, suggesting that to be an explanatory category in science force must be understood in terms of will to power: “the victorious concept ‘force’, by means of which our physicists have created God and the world, still needs to be completed: an inner will must be ascribed to it, which I designate as ‘will to power’” (WP 619, cf. BGE 36). In this instance force is nothing but Nietzsche’s own conception of power. See Schacht (1983): 217 for a subtle reading on the differences between Nietzsche’s conception of power and force. I do not disagree with Schacht’s account. My claim that power and force are coextensive is conditional upon directionality as a shared basic feature, and as I have just shown this seems to fit with some of the key texts.

131 Note three things. First, I make no claim to the effect that these essential features of forces are sufficient conditions of their identity. For a thorough and systematic treatment of forces see Schacht (1983): 187-253. Second, I rely on Molnar’s (2003): 39 definition of essence: F is an essential property of a if and only if F is constitutive of the identity of a. Last, unlike many contemporary disposition theorists, Nietzsche does not consider forces to be themselves properties, though it will emerge that forces are the bearers of certain features that make it possible for objects of the macroscopic world to have certain properties.
important philosophical commitments. I suggest below, for instance, that the force-manifestation independence attribute of forces is a key notion behind Nietzsche’s famous views of self-mastery and the “bad conscience.” The final reason is that contemporary metaphysicians have argued for the central importance of features similar to these in relation to understanding ontologies of forces.\textsuperscript{132} Failure to examine these features to understand Nietzsche’s ontology would therefore be unfortunate, whether or not one ends up taking his view seriously.

3.2.1 Forces

The most basic feature of forces within a will to power ontology is what I call \textit{directedness}. Directedness is an \textit{essential} feature of forces, that is, it is constitutive of the identity of a force (see WP 634).\textsuperscript{133} To say forces have directedness is to say they are actively oriented from a perspective towards some target outcome in an attempt to increase influence (see GM I: 13; WP 619).\textsuperscript{134} Nietzsche’s claim that forces “will” \textit{[willen]} roughly means forces are \textit{actively oriented} toward some target outcome, or expression (see WP 635, 634).\textsuperscript{135} The activity of a force is to affect whatever it encounters, in particular by increasing the influence of its perspective, and the outcome of a force’s activity is whatever is influenced (see WP 636). Nietzsche discusses the expansion of a bundle of force’s influence roughly as “growth” (BGE

\begin{footnotesize}
\begin{enumerate}
\item See, e.g., Mumford (1998); Molnar (2002). Doyle (2009): Ch. 6 uses distinctions in Molnar (2002) to help understand Nietzsche’s ontology, namely, to show the compatibility between intrinsic and relational properties.
\item Richardson has a different understanding of essence which he thinks tracks Nietzsche’s account. He argues that will to power is a property of drives or forces which belong to certain types differentiated by their distinctive efforts or tendencies (Richardson 1996: 20, 23, 45). Will to power is \textit{essentially} an enhancement in an activity given by the content of drives, so willing power is willing a drive(s) to maximally satisfy its given end (ibid, 23, 24). Richardson claims “we find the essence of things when we find the highest and best they can become” (p. 44). Essence is a maximal achievement of a drive’s activity. To me this seems to be an implausible definition of essence, since, as Richardson admits, it leaves it open that some drives fail to achieve their essence (ibid, 27). A consequence is that some drives do not essentially will power, which is generally inconsistent with the texts.
\item See also Schacht (1983): 220. “In its most general and rudimentary form, ‘will to power’ for Nietzsche is simply the basic tendency of all forces and configurations of forces to extend their influence and dominate others.”
\item Forces are not just dispositions to produce effects, but instead a force is what it does.
\end{enumerate}
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For example, he says forces “strive to grow, spread, seize, and become predominant” (BGE 259). “Growth” is specified as “the growth of power [Macht]” (WP 616), and forces “will” power by effectively influencing other forces. For Nietzsche “every specific body strives to become master over all space and to extend its force” (WP 636).

According to Nietzsche, forces have a particular “mode of action” (WP 567). That is, they are actively oriented from a distinctive point Nietzsche calls a “perspective” (ibid). He speaks of “this necessary perspectivism [Perspektivismus] by virtue of which every center of force – and not only the human being – construes the whole rest of the world from its own viewpoint” (WP 636, translation slightly modified). “For this will to power to express itself,” Nietzsche writes, “it must perceive those things which it draws closer; that it feels the approach of something it can assimilate” (LN 34[247] see also 567; HH I: 32; BGE P). Forces appear to be differentiated by their perspectives, and Nietzsche seems to treat a force’s perspective as conceptually, though not ontologically, distinct from a force’s active orientation, or “willing.” The influence a force exerts – namely, “willing” power – is ontologically inseparable, but in principle conceptually separable, from the perspective of the force doing the influencing. A force “wills” power when its perspective influences other forces.

Nietzsche considers forces to be physical, rather than psychic. “All driving force is will to power,” he writes, and “there is no other physical, dynamic, or psychic force except this” (WP

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136 Moles (1990): 165-166, in his largely overlooked but fascinating view of will to power, understands Nietzsche’s conception of “perspective” from these passages as the idea that “from its center, every force evaluates the totality of other forces; it construes the whole rest from that viewpoint. Such evaluation concerns primarily the degree of strength of all other forces,” and “when one force construes all others from its center, this forms the content of its perspective.” A paragraph later he says, “it is not that every activity itself has a perspective, but that every activity presupposes a perspectival center from which all surrounding activities are evaluated” (ibid). Given this qualification, I am worried that his understanding of perspective is nothing more than a spatial position some force has given its relation to all other forces and all others to it. Although such an account would undoubtedly clear up some of the strangeness at the heart of will to power, Nietzsche’s comment that a force’s perspective “feels the approach of something it can assimilate” [LN 34[247] makes Moles’ otherwise compelling position less convincing.

137 See also Richardson (1996): 35-39.
688, cf. GS 310; BGE 13, 23, 230). The claim that all physical force is will to power, however, suggests that Nietzsche thinks some sort of intentionality is inherent in both non-psychic and psychic existents. Like Schopenhauer, who describes the world in itself in terms of a process of blind striving and undirected desiring, Nietzsche does not shy away from describing the nature of forces in intentional language. In addition to saying forces “will,” he also claims that forces “subordinate [unterordnen],” “appropriate [aneignen],” “command [befehlen],” “rule [regieren],” “obey [gehorchen],” “conspire [konspirieren],” and “interpret” [interpretieren].” Nietzsche deploys these terms to explain the process of forces affecting and influencing one another in various ways. Although he tends to use this sort of language hyperbolically – for example, he remarks that forces have an “insatiable desire to manifest power” (WP 619) – he also seems to follow Schopenhauer (and Leibniz) in thinking that intentional terms apply to physical existents literally, as opposed to purely figuratively. Insofar as willing amounts to a directed impulsion toward bringing about an outcome from some perspective, Nietzsche thinks forces will.

It has been argued, however, that Nietzsche’s attribution of intentional properties to physical entities is absurd (see Poellner 1995: 218-219; Richardson 2004: Ch. 1; Welshon 2004: 174-177). For instance, Richardson maintains that Nietzsche is guilty of “illicitly anthropomorphizing an implausible mentality to [forces]” (2004: 13). The worry can be summarized in what has come to be known as the Brentano thesis, according to which intentionality is both necessary and sufficient for the psychological, which entails, conversely, that non-intentionality is necessary and sufficient for the non-psychological. The implication is that intentionality demarcates the physical from the psychic, and if so, Nietzsche’s ontology is

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138 Schacht (1983): 220 thinks that the notion that forces “will” is only figurative: “‘will to power’ . . . emerges as a purely dispositional notion, in [Nietzsche’s] formulation of which his use of the term ‘will’ is merely metaphorical.”
139 Richardson (1996) and Cox (1999) characterize Nietzsche’s forces as “intentional” without any qualms – though later Richardson (2004) seems to think that this view is implausible.
implausible. If Nietzsche’s conception of forces were to satisfy central criteria of what has come to be accepted in the Brentano literature as mental intentionality, however, there may be good reason to believe in physical intentionality.\textsuperscript{140} Strong similarity between mental and physical intentionality is arguably sufficient to warrant the reality of physical intentionality.

I suggest Nietzsche’s conception of forces satisfies at least three of the four central criteria of mental intentionality.\textsuperscript{141} If this is the case, then to whatever extent possible we could read Nietzsche’s description of forces literally, and in doing so think he presents a plausible ontology. The first criteria of mental intentionality is that an intentional state is directed to an object other than itself – call it an intentional object – that in part identifies the intentional state. Now, for Nietzsche directedness is constitutive of the identity of a force. If so, having some target or “intended” outcome is also constitutive of the identity of forces. Forces are identified in part by their manifestation. So Nietzsche’s view of forces meets the first criterion of mental intentionality.

The second criterion is that intentional states can intend indeterminate or fuzzy objects. For example, we use indexical expressions like “soon” which refer to indistinct time-spans. Assuming there is no way to re-describe “soon” to eliminate the fuzziness\textsuperscript{142}, “soon” is an object that implies no definite time. Nietzsche’s conception of forces satisfies this condition as well. For him the process by which a force expands influence does not imply that some definite

\textsuperscript{140} Cf. Molnar (2003): 61ff. for a similar defense of physical intentionality. If one balks at the use of the concept intentionality at play in the strictly physical realm, then simply consider the phenomenon of physical directedness very much like that concept. One might argue that if Nietzsche’s conception of forces are indeed “intentional” and satisfy the Brentano criteria then Nietzsche is problematically committed to some form of panpsychism. To pose this as an objection to Nietzsche, however, assumes the truth of the Brentano thesis, which begs the question.

\textsuperscript{141} I will not discuss the fourth criterion, which is about non-truth-functionality and referential opacity. I am omitting it to avoid anachronism. It is a criterion which has surfaced in the literature only recently, and one would have to extrapolate much too far from Nietzsche’s conception of forces to show he takes account of it.

\textsuperscript{142} One might not grant this assumption. One could give a token-reflexive account of ‘soon’ expressions, in which ‘soon’ picks out an interval that has distinct limits relative to the time of utterance.
expression will be satisfied. The perspective from which a force is oriented does not uniquely determine the outcome, though perspectives do provide a certain range of possible outcomes, just as in ordinary contexts ‘soon’ refers to some time after a millisecond and before a few years. What a force will influence may be indeterminate until the force is manifest. This allows forces to be what Nietzsche calls the “spontaneous, aggressive, expansive, [and] form-giving” that “give new interpretations and new directions” (GM II: 12).

A third criterion is that the intentional object of a mental state can be existent or non-existent. That is, there is no genuine relation between an intending mental state and its object in the sense that both relata must exist. This is not the case with other phenomena such as causal relations. To see how Nietzsche’s conception of forces satisfies this third criterion I will turn to the next defining feature of forces. For him the manifestation of a force depends on the existence of a force, but the existence of a force does not depend on its manifestation. Call this force-manifestation independence.

It is crucial to observe that ‘manifestation’ does not mean what I call an effecting relation. An effecting relation signifies the influencing relation a force has with other forces, whereas manifestation refers to the outcome of a force’s perspective in reality. I follow Richardson’s (1996: 39-44) compelling account that Nietzsche considers a force to be manifest in reality if it plays a dominant role in its effecting relations with other forces and, by virtue of this dominant role, expresses the content of its own perspective over others. According to

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143 Note two things. First, one might respond that this goes too far in the direction of intending fuzzy objects, that is, it now sounds as if Nietzsche’s account cannot target specific objects. I am not sure if this is right. It is certainly not logically impossible in Nietzsche’s account. The answer will depend on how specified the perspective is from which a power “wills,” and it seems that for Nietzsche as forces bundle into more and more complex configurations, their orientations become more and more precise. Note also that the view that what will be influenced by forces is indeterminate until manifest ontologically grounds what is beginning to emerge in the secondary literature as a central condition of Nietzsche’s understanding of intentionality, which is that Nietzsche holds an “expressivist” view of intentionality according to which one’s intentions are actually indeterminate until manifest in action (see Pippin 2009; Nehamas, forthcoming).
Richardson, to say a force is not manifest in reality is to say that its perspective is subordinate to some stronger force and is, by virtue of this subordinate relation, directed at a target other than its own activity, such that this other activity is manifest in reality (see below for an example). If a force’s perspective is under the dominating influence of another force, however, it remains in an effecting relation with the stronger force, even though it is not manifest.

Force-manifestation independence does not imply that the effecting relation of a force depends on the existence of a force, while the existence of a force does not depend on its being in an effecting relation to other forces. The effecting relation of a force indeed depends on the existence of a force, and the existence of a force also depends on its being in an effecting relation to other forces. To be a force is to have directedness, and to have directedness is to be in such a relation: “every atom [of force] affects the whole of being – it is thought away if one thinks away this radiation of power-will” (WP 634, my brackets). Force-manifestation independence is the view that forces are ontologically independent of the occurrence of their manifestation, not their effecting relations.

To clarify force-manifestation independence it might be best to explain its negation. Aristotle describes the Megarian position popular in his time: “There are some who say, as the Megaric school does, that a thing ‘can’ act only when it is acting, and when it is not acting it ‘cannot’ act” (Metaphysics: 3 1046b 28-32). This has come to be called Megaric Actualism, the thesis that forces exist when and only when they are manifested, and otherwise do not exist. According to Megaric Actualism, for example, the particular forces enabling me to play guitar exist just in case I am in the process of playing guitar, and when I put the guitar down, those forces go out of existence.
Nietzsche denies Megaric Actualism in favor of force-manifestation independence. One example comes from his famous passage about the various ways to control overruling drives and work toward self-mastery. For Nietzsche drives are ultimately nothing more than complex variations of interacting forces: “A quantum of power is just such a quantum of drive, will, effect” (GM I: 13; see also WP 688, 689). One method for self-control he suggests is that from the perspective of “another drive, which is a rival of the drive whose vehemence is tormenting us,” one can “avoid opportunities for the gratification of the [vehement] drive” (D 109). A certain drive “commands” another by “submitting” it to its own target, which disallows the fervent drive from executing its own activity. This process does not imply the Megaric Actualist thesis that the overpowered drive goes out of existence when taken over by another drive. Nietzsche claims that “resistance is present even in obedience; individual power is by no means surrendered . . . there is in commanding an admission that the absolute power of the opponent has not been vanquished” (WP 642). If the overpowered force is not “vanquished,” but always lies in an effecting relation with the “commanding” force, then it remains real despite failing to manifest its own activity. Hence for Nietzsche the existence of a force does not depend on the existence of manifestation of the force.

A second important reason Nietzsche has for rejecting Megaric Actualism speaks to the third criterion of mental intentionality cited above, that is, the condition that intentional states can intend non-existent objects. According to Nietzsche the target outcome of a force can be non-existent without affecting the existence of the force. Consider the implications of what he calls the development of the “bad conscience” in the second essay of GM. Nietzsche argues that once we became of necessity trapped within a peaceful society our ability outwardly to express our violent (“animal”) natural drives turned “inward” (GM II: 16). This caused a self-imposed
“repressed cruelty” Nietzsche calls the “bad conscience” (ibid), which results in self-torment. He explains that “[we] invented the bad conscience in order to hurt [ourselves] after the more natural vent for this desire to hurt had been blocked” (GM II: 22).\(^{144}\) The bad conscience instills a deep sense of self-inadequacy that leads to a sharp feeling of guilt. Nietzsche hypothesizes that humanity’s guilt intensifies over time until it combines with a feeling of indebtedness to existence itself, which is thought to be granted by some divine power.\(^{145}\) People come to feel indebted to the divine for their very lives. This debt is impossible to pay in full in this lifetime, and it is often the cause of egregious self-sacrifice. Among other things, Nietzsche thinks this self-lacerating guilt leads to the establishment of the belief in the modern Judeo-Christian God:

This man of the bad conscience has seized upon the presupposition of religion so as to drive his self-torture to its most gruesome pitch of severity and rigor. Guilt before God . . . [The man of bad conscience] apprehends in ‘God’ the ultimate antithesis of his own ineluctable animal instincts; he reinterprets these animal instincts themselves as a form of guilt before God (ibid).

A new phenomenon emerges from the original “psychical cruelty” of the bad conscience. It is

. . . the will of man to find himself guilty and reprehensible to a degree that can never be atoned for . . . his will to erect an ideal – that of the ‘holy God’ – and in the face of it to feel the palpable certainty of his own absolute unworthiness (ibid).

This story indicates that the intentional objects of some drives can develop over time in such a way that they aim at impossible targets. Nietzsche considers the drives that constitute the bad conscience devastatingly real, but the ultimate manifestation of those drives, such as absolute atonement before God, cannot come to fruition within the conditions of this world. Now, one might contend that the targets of these drives do indeed exist within the conditions of this world

\(^{144}\) Note that not all effects of the bad conscience are negative – in fact, it is the condition of the possibility of higher humanity to overcome nihilism (see, e.g., GM II: 16, 19, 24; Ridley 1997).

\(^{145}\) This is a rough generalization. The intensification of guilt is due to the advent of a set of juridical concepts which complicate the story.
– they may simply be hidden to the agents who embody them. Part of Nietzsche’s naturalist project, the reasoning goes, is to uncover this-worldly targets of seemingly otherworldly drives. In the example of the bad conscience, then, the real targets are the agent’s own bodies. One subsumed by the bad conscience “ejects from himself all his denial of himself, of his nature, naturalness, and actuality, in the form of an affirmation, as something existent, corporeal, real, as God” (GM II: 22).

It seems to me, however, that Nietzsche does not deny that drives can have impossible targets. Although he thinks the “will” behind the bad conscience is a form of “madness” or “sickness,” that which is real and erects targets that cannot be met in the conditions of this world is

the will of man to find himself guilty and reprehensible to a degree that can never be atoned for; his will to think himself punished without any possibility of the punishment becoming equal to the guilt; his will to infect and poison the fundamental ground of things with the problem of punishment and guilt so as to cut off once and for all his own exit from this labyrinth of ‘fixed ideas’; his will to erect an ideal – that of the ‘holy God’ – . . . ”

Nietzsche does not deny that people have these “sick” drives, but rather accepts it as a reality and goes on to diagnose the presuppositions and consequences of acting on such drives in this world – just as he does not argue against belief in the existence of God, but instead criticizes the psychological presuppositions and consequences of such a belief. Nietzsche employs these strategies when claiming that something is unworthy of belief.

If this is correct, then one implication is that Nietzsche’s conception of forces satisfies the third criterion of mental intentionality. Assuming drives are composed of complex variations of interacting forces, the existence of the bad conscience shows that forces can constitute a type of intentionality that targets non-existent objects. In this instance, the targeted object is a product of
the complicated creative and constructive activities of human beings.\textsuperscript{146} Another implication of Nietzsche’s account of the bad conscience is that he thinks the existence of a force does not depend on the existence of manifestation of the force. The claim that bringing about a target outcome depends on the existence of a force is consistent with the claim that the target outcome is existent or non-existent, while the claim that the existence of a force depends on bringing about the associated target outcome is inconsistent with the claim that the target outcome is existent or non-existent. The example about the development of the bad conscience then strongly suggests Nietzsche embraces force-manifestation independence. Many of his other prominent philosophical commitments would also be incoherent without a commitment to force-manifestation independence. His account of the ascetic ideal, for instance, would be unintelligible if he were not committed to that notion. As observed in the previous chapter, the ascetic ideal is understood in terms of an attempt to manifest ends that cannot be realized in the conditions of this world.\textsuperscript{147}

The discussion so far assumes a third feature of Nietzsche’s conception of forces: \textit{actuality}. For Nietzsche forces are actual, that is, not mere potentialities. Hume suggests otherwise when he says, “power consists in the possibility or probability of any action” (Hume 1888: 311, see also Goodman 1955: 40-41). Nietzsche would deny this. He offers the view that

\textsuperscript{146}In order to avoid the charge of anthropomorphism, it would be best if we could find Nietzsche talking about a force targeting something non-existent outside the human realm. The bad conscience, however, is the best example we can glean from his texts.

\textsuperscript{147}Richardson’s account of Nietzsche’s ontological will to power hypothesis includes another way in which Nietzsche may be committed to force-manifestation independence. Richardson argues that forces are properties of drives differentiated by their distinctive aims (Richardson 1996: 20, 23, 45). Will to power is an enhancement in an activity given by the content of drives, so willing power is willing a drive to maximally satisfy its given end (ibid). A drive grows in mastering other drives by subordinating them toward its own aim. For Richardson, all drives are either active or reactive. Active drives will their own essential activity and any aims, goals, or values consistent with that activity (ibid, 42). By contrast, reactive drives will something other than the content of their own activity, that is, they submit to the aims, goals, or values of foreign drives (ibid, 38, 41). Nietzsche would seem to be committed to what I have called force-manifestation independence if this were an accurate account of what a reactive drive is. Reactive drives are real but are not manifest.
forces are actively oriented, for example, as a new model from which to understand causality: “there is no other causality whatsoever than that of will on will” (LN 35[15]; see also GM I: 13; BGE 22; 36; WP 619, 634, 664, 688, 689, 692). He attempts to understand “all efficient force univocally as – will to power” (BGE 36, see also Hales and Welshon 2000: 85-107; Doyle: Ch. 6). Nietzsche’s conception of “willing” is examined in relation to causality below (§3), but if we take Nietzsche at his word in these passages the case against Hume’s suggestion should be clear. What is not actual cannot be accounted for as a cause or any part of a cause, and because forces account for causality, forces are actual. Mere possible or probable forces cannot enter into causal relations.

Finally, for Nietzsche forces are ungrounded. The actuality of forces is not due to any non-force substrate. The general concept of a ground, or non-force substrate, in Nietzsche’s historical context was something ontologically distinct from a force by virtue of which a force has its features. Candidate grounds were associated with either some form of substance or material atoms. Consider the notion of substance first. In the philosophical tradition it has often been held that everything in existence is either a substance or a property (or sometimes a relation) whose existence depends on substance, in which case fundamental reality belongs only to substances, not forces. Nietzsche understands substance as the notion that “every object in itself as being in its own essence something identical with itself, thus self-existent and at bottom always the same and unchanging” (HH I: 18). This view at least targets Aristotle, Descartes, and Leibniz. Aristotle defines substance in part as a permanent substratum underlying the changing qualities of things that is ontologically independent of those changing qualities (Categories: 4a 10). Descartes defines substance as “that which can exist by itself, without the aid of any other substance” (1931-4: ii., 53). Leibniz understands substance as that which can be completely
characterized by intrinsic determinations, that is, properties proper to that substance itself that are capable of being understood without reference to anything else. In each case, substance is defined as that which is ontologically independent of anything else due to substance’s having some intrinsic properties that exist independent of other properties.

Nietzsche thinks substance is both philosophically and empirically unjustifiable. He does not make the traditional distinction between intrinsic properties of an object and an object’s forces that manifest themselves as “effects” on other objects or observers. Say a property F of a substance a is intrinsic if and only if a’s having (or not having) the property F is ontologically independent of the existence, and of the non-existence, of anything b such that a is wholly distinct from b.148 Nietzsche’s criticism of substance is that we have no contentful ideal of something (in this instance, property F of substance a) that is supposed to remain once its qualities which are perceived as affecting the observer or other objects (in this instance, b) are abstracted from it. He says, for example, “If I think of the muscle apart from its ‘effects’, I negate it. . . A ‘thing’ is the sum of its effects, synthetically united by a concept” (WP 551).149 According to Nietzsche the notion of a substance as an ontologically distinct bearer or ground of a force by virtue of which a force has its features is unintelligible because we “negate” something altogether when attempting to fully abstract away from its perceived effects. What we mean by “substance” is conceptually incoherent in light of our experience of the world.150

148 Here and elsewhere I rely on Molnar’s (2003): 39-40 definition of intrinsic and extrinsic. F is an intrinsic property of a if and only if a’s having the property is ontologically independent of the existence, and of the non-existence, of any contingent b such that a is wholly distinct from b (i.e. ontologically independent of b); and a’s not having the property is ontologically independent of the existence, and of the non-existence, of any contingent b such that a is wholly distinct from b. F is an extrinsic property of a if and only if F is a property of a and F is not an intrinsic property of a.

149 This does not imply Megaric Actualism because Nietzsche is talking about “effects” as affecting relations.

150 If a substance is nothing more than its properties it escapes this criticism, but that is not the notion of substance held by such thinkers as Aristotle, Descartes, and Leibniz.
This argument may seem to conflate either inconceivability or the inability to encounter something in practice with ontological impossibility. However, because substance is purely a conceptual posit whose intrinsic properties cannot be encountered in experience, the inability to conceive something or encounter it in practice seems to be a justifiable test for ontological impossibility. Nietzsche concludes that substance does not ground activity: “there is no such substratum; there is no ‘being’ behind doing, effecting, becoming . . . the deed is everything” (GM I: 13). According to Nietzsche reality is fundamentally dynamic.

Nietzsche extends his criticism of substance to materialist atomism. He continues the passage in GM just cited by saying, “the deed is everything . . . our entire science still lies under the misleading influence of . . . the atom” (GM I: 13). In some form or another, materialist atomism was the view of Leucippus, Democritus, Epicurus, Lucretius, Gassendi, Boyle, Newton, Rutherford, and many chemical physicists of the nineteenth century. On this theory, the ultimate units of matter are rigid, extended, small pieces of gross matter (“atoms”) that possesses at least shape, size, and weight.

Nietzsche’s view that forces are materially ungrounded reflects the influence of mathematician and physicist Roger Boscovich’s (1711-1787) point atomism. Point atomism opposes the idea that the fundamental level of reality is composed of hard, extended atoms by arguing that non-extended physical force-points (‘puncta’) are the ultimate constituents of matter. For Boscovich force-points are either arranged in stable patterns or interact to produce processes and transformations of patterns. Boscovich tried to show that the relative positions and velocities of force-points together with a complex law of force could account for all the

\[151\] The reason for the multiple ellipses is to avoid having to discuss Nietzsche’s famous argument that the subject-predicate structure of our language leads us to believe there are entities which subsist throughout any possible change.
properties of matter. He remarks, “it will be found that everything depends on the composition of the forces with which these particles of matter act upon one another: and from these forces, as a matter of fact, all phenomena of Nature take their origin” (1922: 6). Boscovich posits force-points in an attempt to understand all material bodies according to a homogenous system of primary, materially ungrounded elements.

The “older atomism,” or material atomism, Nietzsche suggests, “sought, besides the operating ‘power’, that lump of matter in which it resides and out of which it operates – the atom. More rigorous minds, however, learned at last to get along without this ‘earth-residuum’” (BGE 17). He attributes the “rigorous mind” to Boscovich:

as regards materialist atomism: it belongs to the best-refuted things there are . . . thanks primarily to the Pole Boscovich . . . Boscovich taught us to abandon the belief in the last thing of the earth that ‘stood firm’, the belief in ‘substance’, in ‘matter’, in the earth-residue and particle-atom” (BGE 12, see also LN 40[36]).

Nietzsche accepts as conclusive Boscovich’s argument against the notion that forces are materially grounded, which goes roughly like this. Within Newtonian physics, Boscovich claims, contact between two extended spheres moving at different velocities is impossible without violating the law of continuity, the law that changes in velocity happen continuously. In order to avoid interpenetration, contact between the spheres would require velocities to change instantaneously and discontinuously at the same time, which is impossible. Boscovich hypothesizes that changes in velocity between spheres are due to infinitesimal repulsive forces acting at small distances between them, which requires force-points to be fundamental, simple, and non-extended.152 Boscovich moves from this argument to an attempt to reduce matter to

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152 Here is the argument in greater detail. Assume two spheres $a$ and $b$ are moving at six and twelve degrees velocity, respectively, in the same direction, and that $b$ is moving behind $a$. If they collide, $a$ has to change its velocity instantaneously and discontinuously. Otherwise the two spheres would interpenetrate, which is ruled out by the hypothesis that the two spheres are solid. The problem is that such a change in velocity in Newtonian physics
centers of force. This objective is reflected in Nietzsche’s assertion that “no things remain but only dynamic quanta, in a relation of tension to all other dynamic quanta” (WP 635, cf. BGE 36). Nietzsche’s acceptance of Boscovich’s argument provides evidence to think that he considers forces to be materially ungrounded in generally the same way as Boscovich’s force-points.153

3.2.2 Bundles of Forces

Forces always and only exist in bundles, or what Nietzsche calls “quanta” (see WP 634, 635). Bundles seem to be composed of at least two forces (see WP 631).154 Bundles are material bodies that comprise the microscopic world. Since bundles are composed of forces, they are always in conflict with other bundles. Bundles exist, Nietzsche explains, “in a relation of tension to all other dynamic quanta” (WP 635, see also 552, 567, 568).

It is significant to note that the relation of tension between bundles makes it the case that although directedness is an essential feature of forces, it is not an intrinsic feature of them. Let
directedness be an intrinsic feature of forces if and only if any force \( a \)’s having (or not having) some target outcome toward which it is oriented from some perspective is ontologically independent of the existence, and of the non-existence, of any contingent force \( b \)’s having some target outcome toward which it is oriented from some perspective, such that \( a \) is wholly distinct from \( b \); and let directedness be an extrinsic features of forces if and only if it is a property of any force \( a \) and is not an intrinsic property of \( a \). Directedness is as determinate as the identity of the perspective from which a force is oriented and the target outcome toward which it is oriented, but this does not imply that either that the perspective or target outcome of a force is sufficient for determining the identity of a force. If bundles are always in tension and forces only exist in bundles, then it will \( \textit{at least} \) be the case that the target outcome of \( a \) will not be ontologically independent of the target outcome of \( b \).\textsuperscript{155} Since a force’s perspective is not ontologically independent of its influence, neither the target outcome nor the perspective of \( a \) will be ontologically independent of the target outcome or perspective of \( b \).

The implication of the position that directedness is an extrinsic feature of forces is that all forces are ontologically interdependent. “Every center of force adopts a perspective toward the remainder,” Nietzsche remarks, and “the ‘world’ is only a word for the totality of these actions. Reality consists precisely in this particular action and reaction of every individual part toward the whole” (WP 567). Hence, “everything is bound to and conditioned by everything else” (WP 584). The basic position is that every force depends and is depended on by every other force. Yet, “an atom of force,” Nietzsche comments, is more “concerned,” or dependent, on its local

\textsuperscript{155} One might object that my previous argument that a force can be directed at a non-existent object implies that a force’s directedness can be intrinsic. But this confuses force-manifestation independence with an affecting relation. Force-manifestation is the idea that the existence of a force does not depend on its manifestation in reality, but this does not mean that a force does not lie in an affecting relation with other forces.
relations, or those in its own “neighborhood,” rather than its global relations (WP 637). So every force depends and is depended on by some forces more than others.

A main consequence of the ontological interdependence of forces is that “[a quantum’s] essence lies in their relation to all other quanta” (WP 635, see also 567, 568). Bundles have relational identities, which is to say the properties that identify bundles are relational. Let F be a relational property of some bundle \( a \) if and only if F is a property of \( a \) and it is essential to \( a \’s \) having F that there exists at least some force \( x \) and some force \( y \neq x \) and some relation \( \varphi \) such that \( \varphi (x, y) \). Nietzsche attempts to explain the relational properties of bundles in the later notes. He claims, “[1] the properties of a thing are its effects on other ‘things’: [2] if one removes other ‘things’, then a thing has no properties, i.e., [3] there is no thing without other things” (WP 557, cf. 567, my brackets).\footnote{In this context, “thing” just means “quanta of power” or “bundle of forces” (cf. WP 551).} It is important to examine each clause and the relation between them.

In the first clause, Nietzsche offers an explanation of what the properties of a bundle is, namely, its outward effects of some kind. Other passages make it clear that a bundle’s properties are the result of both a bundle’s outward effects and its being affected: “a quantum of power is designated by the effect it produces and that which it resists” (WP 634, see also 567). A bundle’s outward effects and its being affected are due to the directedness of the forces composing the bundles. In the first clause, Nietzsche is saying that a bundle \( a \) will have a property F as the result of some force \( x \) and some force \( y \neq x \) effecting and being affected by each other which forms the relation \( \varphi \) such that \( \varphi (x, y) \).

But notice that this allows for the possibility that forces \( x \) and \( y \neq x \) both compose bundle \( a \), while in the first clause Nietzsche seems to be saying it is the forces that form at least two bundles which gives a bundle its properties. He qualifies the first clause with the second, which
reads, “If one removes other ‘things’, then a thing has no properties.” For a bundle to instantiate a property there must be some other bundle, and so there must be at least two bundles for any property to be instantiated. So if bundle $a$ has $F$ then there must be some bundle $b$ such that either bundle $a$ has force $x$ and bundle $b$ has force $y \neq x$, or bundle $b$ has force $x$ and bundle $a$ has force $y \neq x$. Finally, observe that it is in virtue of the effecting relationship between bundles that a bundle has properties, which means such a relationship is constitutive of the identity of bundles.

The third clause of the passage, the claim that “there is no thing without other things,” combined with the first, the idea that “the properties of a thing are its effects on other ‘things’,” tells us that there are both no property-less bundles and no non-relational properties of bundles. If the properties of a bundle $a$ are the result of the forces which compose it effecting and being affected by the forces that compose at least one other bundle $b$, then removing $b$ from the relationship effectively removes $a$’s properties – assuming a universe in which there are no other bundles effecting and being affected by $a$. Consequentially, all properties are relational. Nietzsche says, “it’s only relations that constitute entities” (LN 14[122]). The directedness feature of forces makes it the case that bundles will only have relational properties. Directedness is the condition of the possibility for bundles to exist in effecting relations with other bundles. It is crucial to Nietzsche’s account that bundles have only relational properties, since, as we saw, this plays a key role in his criticism of substance metaphysics where forces inhere in non-relational substrata.

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157 Since no bundle can be composed of only one force, it seems that the smallest possible world for Nietzsche would be one with two bundles and no fewer than three forces.
158 Although there are no non-relational properties of bundles, one might further specify that this leaves open the possibility that there are relational properties internal to some bundle that are not in any relation to other bundle.
159 See Poellner (1995): 283, Doyle (2009): Ch. 6 for challenges to the view that there are only relational properties in Nietzsche. See Hales and Welshon (2000): 81-84 for a response.
Both the directedness of forces and the relational nature of the properties of a bundle make it the case that the properties of a bundle will always be extrinsic. That is, there is no property F of a bundle a such that a’s having (or not having) F is ontologically independent of the existence, and of the non-existence, of any contingent bundle b, making a wholly distinct from b. Because bundles essentially effect one another, any property F of bundle a will be ontologically dependent on bundle b. Thus, for Nietzsche properties of bundles are always extrinsic.\[160\]

3.2.3 Configurations of Bundles of Forces

Bundles of forces form complex configurations that comprise the macrostructure of the world, which we experience as ordinary material objects. Configurations of bundles of forces

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160 See Doyle (2009): Ch. 6 for a challenge to the claim that Nietzsche thinks there are only extrinsic properties. She holds that Nietzsche allows for both intrinsic and relational properties and these are not incompatible. Her argument is primarily targeted against views that claim “a power is reducible to its effect where its effect is understood to be its reception or interpretation by another perspectively constituted entity” (Doyle 2009: 180). She gets intrinsic properties if such reducibility is not possible.

I have a hard time understanding what Doyle means by ‘reducible’ here and throughout her chapter. Nietzsche seems to allow for forces to be identified with their effects on other forces. He characterizes the properties of bundles as being the result of a force's effecting and being affected by other forces. And identity seems to be a generally accurate (if not necessary) way of understanding reduction.

Doyle’s idea of reduction seems to be the view that a submissive force is reduced to a commanding force if the weaker force goes out of existence when made submissive by a commanding force. She defends the position that “a power's nature is existentially independent of perspectives taken on it from an external vantage point” (ibid, 179). This allows for intrinsic properties. She says this makes sense of Nietzsche’s claim that "there is in commanding an admission that the absolute power of the opponent has not been vanquished" (WP 642).

Her defense of intrinsic properties comes in the form of defending a version of force-manifestation independence. According to her, a force is manifest in reality if it adopts “either the role of ‘dominator’ or ‘dominated’ in its association with other powers” (Doyle 2009: 180). My view is that a dominated force is not manifest in reality. In D 109, recall, Nietzsche claims that a certain drive “commands” another by “submitting” it to its own target, and this process disallows the submissive drive from executing its own particular activity in reality. If a force's perspective is under the dominating influence of another force it is not manifest in reality. Yet this does not mean that a submissive force, recall, is ontologically independent of its effecting relations. Forces have such relations essentially because they have directedness essentially.

My view is that because forces are always in effecting relations, they do not have intrinsic properties. Effecting relations explain what we normally take to be ‘reducibility’ (identification, not existential takeover); a force's having such relations makes sense of WP 642 (quoted above, presumably in Doyle’s defense); and a force’s having such relations is consistent with what seems to be a reasonable construal of force-manifestation independence.
are complex groups of bundles that interact jointly to extend influence uniformly. As a bundle aims to “extend its force” and simultaneously “thrust back all that resists its extension,” Nietzsche explains, it “continually encounters similar efforts on the part of other bodies and ends by coming to an arrangement (‘union’) with those of them that are sufficiently related to it: thus they conspire together for power” (WP 636). The resultant “unions” are configurations of bundles of forces.

Configurations compose the macroscopic world as higher-order organizations of forces from the microphysical realm. According to Nietzsche, all existents function by will to power: “in all events a power-will is operating” (GM II: 12, see also WP 1067). Configurations are conceptually, but not ontologically, distinct from the forces that compose them. Nietzsche seems to think that the differences in the entities that populate the macroscopic world are explained by something like Boscovich’s idea that force-points account for all the properties of nature. For instance, he claims that, “the connection between the inorganic and the organic must lie in the repelling force exercised by every atom of force” (WP 642). “Repelling force” is ultimately a function of the influence of a configuration of forces. Complex configurations have a more dominating influence than simpler ones (see WP 655). In organic nature, complexity is matter of functional specialization. Nietzsche hypothesizes that the emergence of bodily organs is a result of the “greater complexity” and “sharp differentiation” of “will to power in the organic process,” by virtue of which “dominant, shaping, commanding forces continually extend the bounds of their power” (WP 644). Differences in the entities of the macroscopic world are a matter of the structural complexity of configurations of bundles of forces.

161 Nietzsche therefore rejects any rigid ontological division between mind (spirit) and body (see PT 10; Z I “On the Despisers of the Body”; BGE 36; A 14), human and animal (see HC; GS 115; A 14), and organic and inorganic matter (see GS 109; BGE 36; WP 655, 676).
162 I modify this in the next chapter by saying that conceptual differences can impact what objects there are.
Most configurations compose inorganic nature, while some complex structures form living beings (see BGE 259, 13, 26, 230; Z II: 12; GM II: 12; GS 118, 349; A 2; WP 551, 642, 664). For Nietzsche human beings are highly intricate configurations of bundles of forces, primarily consisting in a multiplicity of drives and affects (see BGE 12, 16, 17, 19, 34, 54; TI “Reason” 5; “Errors” 3). He conjectures that people are fundamentally a “social structure of the drives and affects” (BGE 12), with ruling dispositions forming the “head of a communality” (WP 492, see also 490). Drives and affects determine behavior and those that dominate over others, or those that command greater influence, confer greater control over our activities. Since drives and affects are just complex bundles of forces, Nietzsche thinks we most basically seek to increase influence, or “discharge strength” (BGE 13, see also GS 349; Z II: “On Self-Overcoming”; BGE 262; GM II: 11; TI “Skirmishes” 14; 44; WP 650, 688). Human beings most basically operate according to the “fundamental instinct of life, which aims at the expansion of power,” which is “in accordance with the will to power, which is the will of life” (GS 349).

3.2.4 Unstable Configurations of Bundles of Forces

The configurations of bundles of forces that comprise the macrostructure of the world are only relatively stable. They endure insofar as they are unified and collectively oriented.

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163 For a thorough and rich account of the relation between will to power and organic nature see Schacht (1983): 234-252.
164 For brevity, the following account of what it is to be a human is an oversimplification. With respect to the drives and effects they express, for example, Cox (1999): 126-127 says that, “The disposition that composes [subjects] is itself made up of microdispositions – what Nietzsche variously calls ‘drives’ (Trieb), ‘desires’ (Begierden), ‘instincts’ (Instinkte), ‘powers’ (Mächte), ‘forces’ (Kräfte), ‘impulses’ (Reize, Impulse), ’passions’ (Leidenschaften), ‘feelings’ (Gefühlen), ‘affects’ (Affekte), ‘pathos’ (Pathos), and so on.”
165 My understanding of will to power operating in the psychological realm of intentional agents is vague enough to be consistent with accounts that take will to power to be a purely psychological hypothesis. See Kaufmann (1974) for this classic view and Reginster (2006) for a recent account. The idea that the psychological is grounded in the ontological is similar to Schacht (1983) and Richardson (1996).
Nietzsche believes unified configurations sustain a stable macroscopic world.\textsuperscript{166} Change is not constant at the macroscopic level, but because this level is still constituted by a microscopic world continuously in flux, breakdowns are always possible. Configurations are internally in tension because they are composed of forces vying for influence; “the center of the system is constantly shifting” (WP 488, see also 633, LN 11[111]). Because Nietzsche maintains that “in all events a power-will is operating,” he thinks that, “whatever exists, having come somehow into being, is again and again adjusted to new ends, newly taken over, transformed and put to new uses by some power superior to it” (GM II: 12, the second are my italics, translation slightly modified). The world conceived as the set of configurations of bundles of forces is ultimately unstable because at the fundamental level configurations have no a priori fixed persistence conditions to identify them as some particular configuration over time. Nietzsche thinks the world is continuously changing, then, because it is composed of unstable configurations of bundles of forces. If the world is essentially will to power, it is essentially composed of forces. If the world is essentially composed of forces, no configuration of forces is ultimately stable. The claim that no configuration is ultimately stable just means that at the fundamental level they have no a priori fixed persistence conditions. Nietzsche’s hypothesis is that the world is essentially will to power. So, at the fundamental level configurations have no a priori fixed persistence conditions. This argument establishes Nietzsche’s desired conclusion that the world is “eternally changing” (WP 1067) while also allowing for the fact that the macroscopic world remains relatively stable. It is also significant to notice that will to power appears to explain

\textsuperscript{166} At times Nietzsche seems to question this assumption when he criticizes nineteenth century mechanism’s view of nature as being static (see WP 1066, 639). Observe also that because of entropy Nietzsche may not be allowed to assume that configurations are both unstable and constitute a relatively stable macroscopic world. If entropy is always increasing, then bundles of forces are always disbanding and disorder ensues. However, Nietzsche was not aware of this basic understanding of entropy. The thermodynamic revolution of the nineteenth century did not effectively introduce irreversibility into change over time.
change in terms of qualitative alteration, since the features of the world are the result of the endless striving of fundamental forces to gain influence. Will to power therefore explains why the world exists in a state of becoming insofar as that state consists in qualitative alteration.

“The doctrine of sovereign becoming, of the fluidity of all concepts, types, and kinds,” Nietzsche asserts in an early essay, “[are] doctrines that I hold to be true” (UM II: 9, my emphasis). He concludes in the later notes that “will to power” is “the most elemental fact from which a becoming and effecting first emerge” (WP 635).

Will to power appears to be a sophisticated incarnation of the idea that the world exists in a state of becoming. Evidence for this reading emerges when we juxtapose Nietzsche’s supportive description of Heraclitus’ conception of becoming with his description of will to power. He proclaims that for Heraclitus becoming is the ultimate “wavebeat and rhythm of things” (PT 5). Similarly, he says will to power is a “wave of forces . . . a sea of forces flowing and rushing together . . . with an ebb and flood of its forms” (WP 1067). In a world conceived as a Heraclitean becoming, Nietzsche writes, “the whole nature of reality lies simply in its acts” (PT 5). Understood as will to power, “the ‘world’ is only a word for the totality of . . . actions” (WP 567). In Heraclitus’ becoming, and likewise later with will to power, “the definite qualities which look permanent to us express the momentary ascendancy of one partner. But this by no means signifies the end of the war; the contest endures in all eternity” (PT 5). Finally, the position that configurations of bundles of forces constitute the macrostructure of the world, as well as the claim that no configuration is permanent, is similar to the view that becoming is a ceaseless process of “structuring and destroying” which “calls new worlds into being” (PT 7).

The unmistakable likenesses between Nietzsche’s description of Heraclitus’ view of becoming

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167 Nietzsche sometimes even characterizes “will to power . . . as a becoming” (WP 1067, my emphasis, see also 616, 688, 1064).
and will to power strongly suggest that the latter is simply a much more advanced development of the former.

3.3 WARRANTING WILL TO POWER

Commentators find it notoriously difficult to explain how Nietzsche could justify his contention that the world is will to power. It seems to be a metaphysical thesis about the way the world is independent of all perspectives of it. If so, will to power is incompatible with perspectivism: if will to power is a thesis about the true nature of reality independent of all perspectives of it, then knowing so is extra-perspectival.

Responses to this objection vary. Some commentators simply accept the contradiction as incorrigible and claim that Nietzsche is philosophically irresponsible (Danto 1965: 80; Stack 2005: 120; Braver 2007: 141-144). Given Nietzsche’s attacks on similar kinds of inconsistencies, though, this reading is unconvincing. For instance, against those who claim “the essence of things is unknown to me,” Nietzsche responds by saying they pretend to know, or imagine they know, far too much, as if the distinction they assume were justified: the distinction between an ‘essence of things’ and a world of appearances. To make such a distinction, one would have to conceive of our intellect as afflicted with a contradictory character: on the one hand adapted to a perspectival way of seeing . . . on the other, capable of grasping this perspectival seeing as perspectival, the appearance as appearance . . . we must not conceive of our intellect as being so contradictory . . . Let’s abolish the “thing-in-itself” and with it one of the last clear concepts, that of ‘appearance’ (LN 6[23], see also GS 54, 354; LN 9[97]).

Nietzsche criticizes metaphysicians for claiming “far too much” than is allowed when assuming there is a way the world is independent of any perspective of it. To claim that his considered ontology is a victim of his own criticism is hard to believe.
A similar solution might be to admit the contradiction but just deny it is a problem (Derrida 1981; de Man 1982; Harr 1995: 15; Porter 2006: 553). On this approach, Nietzsche does not think we can make true assertions about the nature of reality in the first place. This reading contends that for Nietzsche everything is becoming to the effect that nothing is anything long enough for us to make such claims. However, I argued in Chapter 1.4 that Nietzsche thinks we can make true claims about the world, and I suggested above that he believes the world in a state of becoming can be known. Hence I find this approach untenable as well.

A better strategy to the objection is to retain both will to power and perspectivism by arguing that will to power offers a metaphysics which generates perspectivism but does not apply back to it (Richardson 1995; Hales and Welshon 2000: 57-84). The problem with this position is that it assumes will to power is a metaphysical thesis about the way the world is independent of all perspectives of it. Richardson introduces and develops this strategy in the most detail, but on the penultimate page of his book he actually rejects it for this reason: “At our beginning, it seemed we could sustain both positions only be ‘insulating’ the ontology from the perspectival point. But now we see how Nietzsche can agree that his metaphysics is itself ‘just a perspective’ (as in BGE 22) without giving up its claim to epistemic rank” (1996: 289).

Richardson suggests turning to what I take to be the best approach, which is to subsume will to power within perspectivism by denying that Nietzsche offers it as a metaphysical thesis. Particular uses of this approach are better than others. Some claim that Nietzsche’s assertion that the world is will to power is not intended to be true, but instead metaphorical, merely interpretative, or performative rather than declarative (Kofman 1972; Schutte 1984: Ch. 4; Allen 1993: 49, respectively). Above I provided textual evidence which suggests that Nietzsche

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168 Although Heidegger’s strategy is to preserve the metaphysics in some sense, which makes it unlike the view under attack, it also requires saying truths are illusions (see Heidegger 1982: 145). I therefore find it untenable.
considers will to power to be more than just a metaphor, a mere interpretation, or an assertive performance. Other commentators believe Nietzsche aims to justify will to power as the best perspective from which to understand the empirical world (Schacht 1983; Anderson 1996; Cox 1999: 213-246; Doyle 2009: Ch. 4). I now attempt to make an original case for this view. I suggest Nietzsche justifies will to power as an empirical hypothesis about what there is by appeal to current science, specifically by relying on what has come to be known as a model-based account of scientific theory.

3.3.1 Argument from the Text

BGE 36 contains the most straightforward published argument for Nietzsche’s claim that the world is will to power. The passage opens with a conjecture:

It is also the most controversial. As I stated above (§2), Clark argues that it is not to be taken as representative of Nietzsche’s views. She instead contends that Nietzsche intentionally loads the passage with false premises in order to show us that the will to power is just a subjective expression of Nietzsche’s own values. She names two distinct problems. The first is that the argument is presented in the subjunctive mood. The second is that the argument contains two premises that are inconsistent with some of Nietzsche’s other commitments.

It is true that BGE presents the will to power in a subjunctive mood. But the best conclusion to draw from this does not seem to be that it completely fails to represent Nietzsche’s own viewpoint. A better explanation seems to be that, by his own admission, the will to power hypothesis is a radical new idea to be adopted experimentally (see also Anderson 1996: 736; Hales and Welshon 2000: 102-107; Doyle 2009: Ch. 4). Nietzsche’s reticence on the issue does not justify simply throwing it away. Moreover, the famous passage that grounds what has come to be regarded in the literature as the view that the eternal recurrence is not a cosmological doctrine, but a principle that operates as a practical thought experiment for the test of living a worthwhile life, is also posed in the subjunctive mood (GS 341). And no one questions whether or not this passage fails to represents Nietzsche’s concerns – not even Clark! (see Clark 1990: 251). This suggests that the subjunctive mood itself is not enough to discredit BGE 36 for representing Nietzsche’s views.

The second worry is that BGE 36 contains two claims that are incompatible with Nietzsche’s other commitments. The first inconsistency stems from the fact that Nietzsche opens BGE 36 with the premise that, in Clark’s phrasing, “only the world of our desires and passions is ‘given’ as real” (Clark 1990: 213). She then argues that in order to be true this premise depends on a claim about having privileged access to first-person mental states. Yet Nietzsche criticizes that very Cartesian notion in numerous other contexts (ibid; see BGE 16, 17, 19). So we shouldn’t trust the premise. I agree that Nietzsche criticizes Cartesian privileged access, yet I do not think this is inconsistent with his account in BGE 36. He goes on to clarify his first premise by saying “we could not get down, or up, to any other ‘reality’ besides the reality of our drives” (BGE 36). All the first premise says, then, is that all of reality has as much reality as our drives (cf. Hales and Welshon 2000: 105). Clark’s accurate point that Nietzsche criticizes privileged access to first-person mental states is moot. It does not make Nietzsche’s first premise untrustworthy, that is, it at least does not render BGE 36 untrustworthy from the start.

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Suppose nothing else were “given” as real except our world of desires and passions, and we could not get down, or up, to any other “reality” besides the reality of our drives.

This “primitive form of the world” as only “drives” suggests a project:

is it not permitted to make the experiment and to ask the question whether this “given” would not be sufficient to render the so-called mechanistic (and thus material) world comprehensible as well? (translation modified)

The experiment is not optional:

In the end not only is it permitted to make the experiment; conscience of method demands it.

Nietzsche then expands on the connection between effective drives and efficient causality:

The question is in the end whether we really recognize the will as efficient, whether we believe in the causality of the will: if we do – and at bottom our faith in this is nothing less than our faith in causality itself – then we have to make the experiment of positing the causality of the will hypothetically as the only one. “Will,” or course, can affect only “will” – and not “matter” (not “nerves,” for example). In short one has to risk the hypothesis whether will does not affect will wherever “effects” are recognized – and whether all mechanical occurrences are not, insofar as a force is active in them, will force, effects of the will.

He concludes with a statement about will to power as the only efficient causal force:

Suppose, finally, we succeeded in explaining our entire instinctive life as the development and ramification of one basic form of the will – namely, of the will to power, as my proposition has it; suppose all organic functions could be traced back to this will to power . . . then one would have gained the right to determine all efficient force univocally as – will to power. The world viewed from inside, defined and determined according to its “intelligible character” – it would be “will to power” and nothing else.

The initial claim – that “we could not get down, or up, to any other ‘reality’ besides the reality of our drives” – is a psychological claim. Psychology falls under the scope of science

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The second premise Clark believes BGE 36 presents as actually being false is that the rest of the world is explicable in terms of the will’s kind of causality. Clark claims this is inconsistent with Nietzsche’s views because he rejects causality of the will. Hales and Welshon (2009): 106-7 have done a convincing job challenging this claim, so I will not go over old ground. Their basic idea is that Nietzsche does not reject causality of the will altogether, but only a certain kind of willing which presupposes an unchanging, unified subject “atom” which wills.
Nietzsche calls psychology “the queen of the sciences, for whose service and preparation the other sciences exist” (BGE 23). BGE 36 suggests psychology can potentially service other sciences by positing the reality of “willed” drives. Drives “will” in the sense that they are psychological forces capable of motivating behavior. In BGE 36 Nietzsche appears to propose that if what it is to be a willed drive can be justified as an instance of what it is to be an efficient causal event, then all efficient causal events might be justifiably modeled as will to power. Psychology might “service” other sciences in one important sense by being the first critical discipline to present data that seems to support will to power in order to make the generalization Nietzsche suggests.

Why think a willed drive event is an instance of a causal event conceived as will to power? Rex Welshon’s (2004: 173-176) has an important insight on this matter. Welshon suggests that for Nietzsche the instantiation holds because willed drive events and will to power events enjoy isomorphic structures. A willed drive event, or, in more general terms, an intentional psychological event, consists in a perspective, an intentional object, and an affective attitude relating subject to object (let us bracket the fact that in willed drive events subjects often recognize intentional objects). For instance, if S loves the band Black Flag, then S is the subject, Black Flag the intentional object, and loving the affective attitude. The structure of an intentional psychological event is <subject → affect → intentional object>. It is an affective directed transfer of energy from subject to intentional object.

\[^{170}\] At the time, psychology was neither completely separate from philosophy.\[^{171}\] In what follows I follow Welshon’s (2004): 135-156 view of Nietzsche’s conception of drives (and affects). For other interesting accounts see Schacht (1983); Richardson (1995); Janaway (2007).
Welshon construes a non-psychic event modeled as will to power as having the form 
\langle \text{event } \alpha \rightarrow \text{energy packet } \gamma \rightarrow \text{event } \beta \rangle \) (ibid, 174). To see this, consider his example of a rock sitting in the sun that warms and emits heat energy onto an insect resting on the rock. For Nietzsche, the rock and sun are, by hypothesis, nothing but “complexes of events which appear to have duration in relation to other complexes” (WP 552). In other words, they are intricate configurations of bundles of forces. The effective emission of heat energy from one configuration to the next is an expression of energy Nietzsche characterizes as force. A will to power causal event consists in force transferring from one configuration to another.

The triadic structure of a causal event conceived as will to power is isomorphic to the structure of an intentional psychological event. What it is to be a willed drive event (an affective directed transfer of energy from subject to intentional object) mirrors the structure of what it is to be a will to power causal event (an affective directed transfer of force from one configuration to another). The isomorphism between an intentional psychological event and an efficient causal event conceived as will to power provides reason to think the former is an instance of the latter. If the conception of an intentional psychological event as an instance of a causal event conceived as will to power extends to causal events beyond the limits of psychology, Nietzsche believes we should eventually be permitted to conclude that all efficient causal events are most basically due to the operation of will to power. That is, if we succeed “in explaining our entire instinctive life as the development and ramification of one basic form of the will – namely, of the will to power,” eventually showing that “all organic functions could be traced back to this will to power,” it would be “sufficient to render the so-called mechanistic (and thus material) world

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172 I characterize what we normally think are objects as events to stress Nietzsche’s view that objects fundamentally are event-like.
comprehensible,” such that “all” efficient causality is a consequence of “will to power” and nothing else” (BGE 36).

Nietzsche explicitly requests that we make this generalization, albeit experimentally. He says we should “make the experiment of positing the causality of the will hypothetically as the only one,” or “risk the hypothesis whether . . . all mechanical occurrences are not, insofar as a force is active in them, will force, effects of the will” (ibid). The suggestion is that the disciplines whose domains range over “[human] instinctive life,” “all organic functions” – which include “self-regulation,” “assimilation,” “nourishment,” “excretion,” “metabolism,” and “procreation” – and the “so-called mechanistic (and thus material) world” ought to adopt a new notion of efficient causality (ibid, see also 13, 22).

This provides strong indication that if the world is indeed will to power it will be justified within the sciences.173 This is not inevitable, of course, since upon further investigation it may turn out that the world is not will to power. Nietzsche also seems to think that the sciences are not ready to understand all events as will to power (see WP 619). He hopes they will, however. BGE 36 suggests that various scientific disciplines may be warranted in claiming that events within their domains are the result of the operation of will to power once they take notice that the intentional structure of our drives, provided by the burgeoning psychological accounts in the 19th century, is an exemplary instance of the general structure of all events conceived as will to power. Justifying the claim that the world is will to power is then first dependent upon the warrantability of Nietzsche’s more limited claim that will to power makes sense of the intentional structure of our drives. If this claim were warranted, there would then be reason to go

173 Nietzsche’s view that the world is will to power will be justified within the sciences is not a necessary claim, since, for example, it may just as well turn out that upon further investigation the world is not will to power (see below). Nietzsche also thinks the sciences are not ready to understand all events as will to power (see WP 619), but given the analysis in BGE 36 it seems clear that he hopes they will.
to the other sciences to vindicate the general claim. I now turn to how Nietzsche thinks each of these claims could be justified by the sciences.

3.3.2 Will to Power and a Model View of Scientific Theory

Nietzsche’s tentative optimism that the sciences will justify his hypothesis that the world is will to power depends on how he thinks science successfully represents its domains. He suggests scientific representation is a relationship between intentional agents with certain purposes in association with some target phenomenon. This view of representation has the following form: $S$ uses $X$ to represent $T$ for $P$; where $S$ is some agent(s), $T$ is some target phenomenon, and $P$ is some purpose. At an advanced level of representation, $X$ is usually a scientific theory. Theories are traditionally understood to consist in sets of declarative statements (see, e.g., van Fraassen 1980). According to this semantic view, theoretical claims represent the world in linguistic terms, usually by a two-place relation between linguistic entities and the world. The view that theoretical claims are statements, however, does not adequately capture the nature of scientific representation Nietzsche seems to have in mind in BGE 36. Intentional psychological events appear to be instances of events of will to power by virtue of similar form or structure. Yet nonlinguistic devices, such as maps or models, represent forms or structures better than statements. Thus, it seems a model view of scientific theory, which primarily functions by representing structural similarities, is required.

In what follows, I appeal to a model view of scientific theory in order to sketch how Nietzsche justifies his claim that the world is will to power. The model view I explicate is a

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174 In BGE 22, for example, Nietzsche talks about how physicists attempt to represent the world according to the idea that nature conforms to laws because they are surreptitiously guided a “democratic instinct of the modern soul,” whereas some with “opposite intentions” could represent “the same phenomena” as having no laws if they interpreted it as being fundamentally will to power.
contemporary idea, but it accords nicely with Nietzsche’s intentions for warranting his fundamental ontology. As I have suggested, the central claims made in BGE 36 appear to demand a view of theory based on structural likenesses. Nietzsche was also aware of how often scientists rely upon something like models of events to understand target phenomena (Stack 2005: 112; see also HH I: 11, 19; GS 112, 373; LN 2[139], 5[16], 14[79]). In this regard, the views of a number of recent philosophers of science are simply more advanced versions of his basic insights. Although Nietzsche is often critical of the ways in which particular scientific programs, such as mechanism, use models, this does not imply that he impugned their use in general. In his notes, for example, he claims that physicists “construct for themselves a world of force-points” because they “have no use for lump atoms in their science” (LN 40[36]). The suggestion is that will to power is a superior model over material atomism.

Let us look at some important details of a model-based view of theory in relation to Nietzsche’s will to power hypothesis. In a model-based view, scientists first construct models of target phenomena by using a certain set of principles. They then use models to produce hypotheses and generalizations about wider classes of target phenomena, depending on the fit between models and data. Theories are constructed roughly as follows (see Giere 2006: 61):

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Principles
↓
Representational Models
↓
Hypotheses and Generalizations
↑
Observational Data
↑
Target Phenomena
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175 In what follows, I am indebted to Giere’s conception of model-based views of science (see Giere 1999: 84-146; 2006: 59-95).
Principles are rules devised by agents for building models to represent target phenomena. For instance, Newton’s principles (traditionally, “laws”) of mechanics, which includes the seminal idea that the change of momentum of a body is proportional to the impulse impressed on the body, may be understood as rules for the construction of models to represent many types mechanical systems, from comets to pendulums. The principles provide a perspective within which to understand mechanical motion.

The central principle informing Nietzsche’s will to power hypothesis is that forces are directed, that is, they are oriented toward a target from some perspective in order to increase influence. An ancillary assumption is that forces are ungrounded. Directedness is the basic rule for the construction of all efficient causal occurrences as having the form \(<\text{event } \alpha \rightarrow \text{energy packet } \epsilon \rightarrow \text{event } \beta>\), such that \(\alpha\) and \(\beta\) are more or less stable collective orientations of forces, and \(\epsilon\) is a directed energy transfer between relata \(\alpha\) and \(\beta\) due to the forceful influence of \(\alpha\) onto \(\beta\). Directedness provides a perspective from which to understand Nietzsche’s claim that all events are fundamentally the result of the world being will to power.

Although principles delimit abstract conditions that inform the construction of models, models are designed so that the elements of the model can be coordinated to fit with features of target phenomena represented in observational data. A model is a representational tool constructed from particular principles. The notion of fit with respect to a model is primarily a relationship of similarity between some aspect of a model and some aspect of a target phenomenon. Similarities in physical structure, for instance, made possible Watson and Crick’s famous sheet metal and cardboard model of the double helix structure of DNA. A model exemplifies representational success if its elements are accurately coordinated to fit target
phenomena enough to satisfy certain purposes. Agents supply the standards of accuracy for the fit of representational models. For example, Watson and Crick’s model is clearly not meant to show that DNA is made of sheet metal and cardboard! Using a representational model requires agents to decide which features of a model they find relevantly similar to fit the data of the target phenomenon and in what respect or to what degree the relation of similarity holds.

Nietzsche offers will to power as a model ($\langle \text{event } a \rightarrow \text{energy packet } \gamma \rightarrow \text{event } \beta \rangle$) from which to understand all events in the world. He thinks all events can be ultimately represented as the result of configurations of bundles of forces interacting with one another. The success of the will to power model relies on a strong relationship of fit. It seems to require isomorphism:

The question is in the end whether we really recognize the will as efficient, whether we believe in the causality of the will: if we do – and at bottom our faith in this is nothing less than our faith in causality itself – then we have to make the experiment of positing the causality of the will hypothetically as the only one (BGE 36).

Welshon points out that Nietzsche is not concerned with finding a mere similarity between instances of willing and instances of efficient causality, but instead whether what it is to be an event of efficient causality is what it is to be an event of willing (2004: 175). There may be good reason to believe that an event of efficient causality conceived as will to power is the same as an event of willing because the triadic structure of intentional psychological events is formally isomorphic to the triadic structure of efficient causal events on the hypothesis that events are will to power. The relationship of structural isomorphism makes intentional psychological events ultimately instances of configurations of bundles of forces affecting one another such that willing amounts to expressions of energy and resistance to other forms of expression. Nietzsche’s claim that will to power makes sense of the intentional structure of our drives would therefore be
justified if psychology succeeds in representing intentional events as instances of will to power by using something like a model view of scientific representation.

The attempt to apply a model to a specific target generates hypotheses about the fit of that model to general phenomena. A model may be generalized to include greater classes of objects if there is a respective fit between a model and the data gathered from observations in other domains. Nietzsche cautiously but confidently believes the will to power model will successfully generalize from psychology to include to all classes of objects, and he holds that this generalization depends on the will to power model’s fit with observational data. In BGE 36, he exclaims that the “right to determine all efficient force univocally as – will to power” depends on initially “explaining our entire instinctive life as the development and ramification of one basic form of the will – namely, of the will to power” and coming to show that “all organic functions could be traced back to this will to power,” such that will to power would eventually “render the so-called mechanistic (and thus material) world comprehensible” (BGE 36, translation modified). The representational success of the will to power model depends on showing that the observational data gathered by other sciences extends to fit that model. The warrantability of Nietzsche’s general hypothesis that the world is will to power is conditional upon the model fitting the data of scientific theories. If science gives rise to well-supported theories that cannot be understood in terms of such a model, the proper response would not be to throw out the data of those theories, but to alter the model from which we understand the target phenomena at issue.

Nietzsche is hopeful that the will to power hypothesis will be substantiated in inquiry. It should, he thinks, move us to reconceive the nature of the objects of scientific study as configurations of bundles of forces. He encourages investigators to focus their attention on a fundamentally dynamic conception of the world rather than thinking the world most basically
consists in the interactions of objects with natures independent of their effects (e.g. substances). Although Newton produced a model of the motion of bodies which included several dynamical concepts, such as momentum and gravitational attraction, the underlying assumption was non-dynamical, namely, that of solid bodies populating space. For Nietzsche the sciences should once and for all abandon the notion that extended atoms in contact with one another form the basic level of reality. He is hopeful that his dynamic will to power model will supplant the dominant model of materialist atomism.

3.3.3 Summary of Warranting Will to Power

Nietzsche’s contention that the world is will to power is not incompatible with his perspectivism because he intends it to be justified from the perspective of science. Will to power is not a metaphysical view about the way the world is extra-perspectivally. It is best understood as an empirical hypothesis about the nature of reality justified by the sciences – though not one the sciences have fully attempted to develop on their own. I have tried to show how Nietzsche’s hypothesis could be warranted on a model view of scientific theory. Models provide vantage points from which to understand observational data gathered from target phenomena. Nietzsche thinks the will to power model provides a unifying perspective from which to understand observational data gathered from existing scientific theories. If a model succeeds in representing the data, we are justified in adopting it.

Can Nietzsche conclude that it is perspectivally true that the world is will to power if justified by a model view of scientific representation? Models do not properly have truth-values. Unlike statements, it does not make sense to say a model itself is true or false. Models can only

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176 For an excellent treatment of Nietzsche’s arguments for this see Moles (1990): 149-154.
fit target phenomena. To represent successfully models need only be similar to a particular target phenomenon in specified respects. So Nietzsche might not be able to defend the claim that the world is will to power is perspectively true if that claim is vindicated by a model view of theory.\footnote{If one wanted to retain truth and falsity on a model view of scientific theory it would have to be in the individual statements associated with models, which could be more or less true or false, that is, approximately true or false (see Kuipers 2000). Approximate truths are based on relations of similarity like models. I argue in Chapter 5 that Nietzsche holds an approximate view of truth, in which case it may be available to him to say that it is not true that the world is will to power while also embracing the view that statements associated with the will to power can be approximately true when accounting for the established data.}

Nietzsche does not always intend his thesis to be true, however, so much as he thinks it provides a perspective of the world that does better justice to the relevant data than other available accounts.\footnote{For a compelling account of Nietzsche’s idea of doing better justice to phenomena as a criterion of epistemic merit see Schacht (1983): 105-108.} In general, Nietzsche’s aim is “to replace the improbable with the more probable, possibly one error with another” (GM P: 4). For instance, he contends that physicists’ conception of “nature’s conformity to law” is the result of a “bad [mode] of interpretation,” and that will to power is a better “interpretation” of the “same phenomena” physics accounts for (BGE 22). The claim that will to power is an “interpretation” does not imply that it is perspectively true, nor does it imply that will to power is a mere interpretation, that is, a view with no more or less epistemic significance than any other view. Nietzsche’s claim is that the will to power model can better explain data accounted for by the current physical sciences. Will to power is justified because it better fits target phenomena.

3.4 WILL TO POWER AND LIFE-AFFIRMING SCIENCE

Will to power, I suggest, provides an ontological basis for Nietzsche’s life-affirming conception of science. Nietzsche wants to reconceive science, and a crucial part of this involves
reconceiving what there is for science to investigate. Recall that Nietzsche considers a position to be nihilistic if it affirms life-negating values, which are those values that cannot be satisfied in the conditions of this world. If the world is indeed will to power, as Nietzsche maintains, then there is strong motivation to suppose that the ontological thesis of objectivist realism (OR₀), the thesis that the world has a fully determinate structure constitutively independent of our perspectives, is a life-negating value. It will take future chapters to develop the argument in full, but the reasoning is as follows. If the world is will to power, then it is constituted by change, or qualitative alteration, which suggests the world has an indeterminate structure. Yet Nietzsche believes the world has a determinate structure. For Nietzsche the world conceived as will to power has a determinate structure only by virtue of our perspectives. If so, then OR₀ is a life-negating value, and thus objectivist realism is nihilistic. So, a life-affirming conception of science must at least adopt the will to power model of nature.

One might contend that this argument does not show that accepting a will to power ontology is a necessary condition of life-affirming science. It could be the case that the world has a determinate structure only by virtue of our perspectives if the world is not will to power. One might be a material atomist, for example, and claim that reality consists in random assemblages and re-assemblages of material atoms that never form determinate structures apart from our perspectives. But recall that Nietzsche believes will to power explains observational data better than any other theory – especially material atomism – and he offers will to power in explicit opposition to views that assume a true world of being. Thus, will to power is a necessary condition of a life-affirming conception of science.
3.5 TOWARD NIETZSCHE ON OBJECTS

Showing that for Nietzsche the world conceived as will to power has a determinate structure only by virtue of our perspectives requires explaining why he thinks configurations of bundles of forces become determinate objects. His position that the world is constitutionally changing is important, I suggest, because it raises this issue. Nietzsche’s view that the world consists in configurations of bundles of forces undergoing qualitative alteration does crucial work in countering ontologies like ORO because it brings to the fore questions concerning the conditions under which something is a determinate object.

To address these questions it is helpful to distinguish two senses in which Nietzsche thinks something is an object. On the one hand, objects may be theoretical and exist at the microscopic level. Theoretical objects are small bundles of forces. On the other hand, objects may be ordinary and exist at the macroscopic level. Ordinary objects are composed of large configurations of bundles of forces. The following chapter examines Nietzsche’s conception of ordinary objects – and it will become clear that the very idea that he believes objects exist at the macroscopic level is controversial. I hope to show that for Nietzsche ordinary objects exist as configurations of bundles of forces organized by our representations.

In closing, I want to suggest that this proposed reading of Nietzsche’s conception of ordinary objects is an instance of his ontological views developed in this chapter. Nietzsche maintains that the world is fundamentally composed of forces. Forces are actively oriented to increase influence from some perspective, and interact in concert with other forces to extend greater influence, whether in bundles at the microscopic level or in configurations at the macroscopic level. According to Nietzsche both types of organization are perspectival in the

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179 My use of the term ‘object’ in Chapter 2 generalized over both levels.
sense that the forces that compose them seek to increase influence from a more or less unified perspective. The set of perspectives of the various organizations of forces determine the world’s structure. Importantly, Nietzsche thinks our lives do not unfold independently of the dynamic processes that compose the world. We are part of the set of perspectives that determine the world’s structure. On Nietzsche’s account, I claim, we organize the world into determinate objects. He explains, for example, “A thing = its qualities; but these equal everything which matters to us about that thing; a unity under which we collect the relations that may be of some account to us” (LN 2[77]). What an object is appears to be essentially dependent on our activities. Thus, my proposed claim that for Nietzsche ordinary objects are portions of the world organized by our representations is an instance of his general ontological position that perspectives give structure to the world. The issue to examine, then, is how for Nietzsche our perspectives structure the world.
CHAPTER 4
OBJECT CONSTRUCTIVISM

This chapter begins to address how a perspectival view of knowledge supports a life-affirming conception of science. I have suggested that a necessary condition of a life-affirming conception of science is not affirming objectivist realism, specifically the ontological thesis that the world is determinate constitutively independent of our perspectives. Chapter 3 closed with the suggestion that for Nietzsche the world has a determinate structure only in relation to our perspectives. This chapter aims to explain what I take to be Nietzsche’s view that we structure the macroscopic realm of ordinary objects. The following chapter completes the discussion by investigating how he thinks we structure the microscopic realm of theoretical objects.

My contention is that Nietzsche embraces object constructivism, roughly the thesis that all objects are socially constructed. I begin this chapter by describing social constructivism in some detail in order to better understand Nietzsche’s object constructivism. I then examine current views of Nietzsche’s conception of ordinary objects. I claim none are consistent with the texts and their failings indicate that Nietzsche endorses a constructivist conception of objects. The third section begins to flesh out Nietzsche’s object constructivism, which requires giving a brief overview of his understanding of perspective, interpretation, value, and concept. I then advance my constructivist reading of Nietzsche’s conception of ordinary objects. The final section responds to objections.
4.1 SOCIAL CONSTRUCTIVISM

I have suggested that Nietzsche endorses a constructivist view of objects. Object constructivism is an instance of social constructivism, or more simply constructivism. Ordinarily, to say something is constructed is to say it is brought into being by intentional activity, and to say something is socially constructed is to say it is constructed by some organization of a group of intentional agents with certain values, needs, and interests. Objects such as nickels, books, and tables are certainly socially constructed. However, object constructivists often argue that objects that appear to exist in the world independent of our activities are socially constructed, such as quarks (see Pickering 1984; Hacking 1999: 64, 68-70) or stars (see Goodman 1978; 1984; Schwartz 1986, 2000). What it means to construct these sorts of arguably natural objects, however, is unclear. What is clear is that object constructivists do not endorse the idealist thesis that the existence of objects is completely dependent on our mental activities, nor do they think all objects are literally crafted and physically placed out in the world. Constructivists instead maintain that there is something apart from us but that it is determinately structured only in relation to our contributions.

Call object constructivism the thesis that all objects that are in principle graspable are constructed. To say objects are constructed is to say the identity conditions of objects are essentially dependent on the occurrence of certain intentional activities, which is just to say those activities are constitutive of the identity of objects (see Goodman 1984; Schwartz 1986, 2000). An object is constitutively dependent on intentional actions if its identity is in part constituted by those actions. Among other things, constitutive dependence implies persistence dependence about objects, the thesis that the current identities of objects would cease to exist without the

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It will become clear below that by ‘intentional activities’ I mean ‘descriptive representations’.
presence of certain intentional activities. Persistence dependence about objects means that objects themselves may cease to exist without the presence of certain intentional activities, assuming a necessary condition of an object’s existence is having identity conditions.

Call object objectivism the negation of object constructivism. It is the thesis that not all objects that are in principle graspable are constructed, that is, the identities of some objects are independent of the occurrence of certain intentional activities. By ‘independent’ I mean the identity conditions of objects exist at least constitutively, and perhaps, but not typically, conditionally apart from the occurrence of certain intentional actions. If an object’s identity conditions are conditionally dependent on the occurrence of our intentional activities, then although we must grasp the object from some standpoint or other determined by particular values, needs, or interests, that grasping does not constitute the identity of the object. So an object objectivist might say understanding what a star is requires us to grasp the firmament from some standpoint determined by particular values, needs, or interests, but that grasping in no way constitutes what it is to be a star. The identity conditions of stars are constitutively independent of our actions.

If the identity conditions of objects are merely conditionally dependent on intentional actions, they are trivially dependent on those actions. Conditional dependence suggests that even if intentional beings had never existed the universe would still be populated by many of its current objects, such as moons and molecules. If the identity conditions of objects are constitutively dependent on intentional actions, then the identities of objects are non-trivially dependent on those actions – if for no other reason than if those actions were otherwise, the identities of objects would be otherwise.
Object objectivists who maintain that the identity conditions of objects are *neither* conditionally *nor* constitutively dependent on intentional actions are committed to what I call *noumenal* objects. Noumenal objects are objects that are in principle not graspable by any method available to human beings, such as Kant’s thing in itself. The best defense of object constructivism against object objectivism involves arguing against the position that the identity conditions of objects are conditionally dependent on intentional actions as well as the position that noumenal objects exist, despite the fact that noumenal objects are in principle inaccessible and thus pose no direct threat to constructivism.

Those sympathetic to object constructivism often emphasize the construction of *facts* about objects, not just objects themselves (see Goodman 1978: 91-107; Kukla 2000: 25-31; Boghossian 2006: 17, 22, 28; Schwartz 2000). For example, object constructivists are interested in the fact that some celestial body instantiates the property PLANET in addition to being a celestial body. Commitment to object constructivism appears to commit one to the view that facts are constructed. Assume that an object’s identity is essentially dependent on the properties it instantiates, and that a fact is just an object’s instantiating a property. If so, then the object constructivist thesis that the identity conditions of all graspable objects are essentially dependent on our descriptions implies the scientific constructivist thesis that all graspable scientific facts are essentially dependent on our descriptions. If object \( o \) has property \( F \) by virtue of intentional activities, then the *fact* that \( o \) has \( F \) is by virtue of those activities. One might think Pluto, for instance, is in fact not a planet because astronomers have determined that it is an object that does not satisfy the conditions for a planet.

Call *fact constructivism* the thesis that all facts that are in principle graspable are constructed. To say facts are constructed is to say facts are essentially dependent on the
occurrence of certain intentional activities, which is just to say those activities are in part constitutive of facts (Kukla 2000: 19; Boghossian 2006: 22). Fact constructivism entails constitutive dependence and persistence dependence about facts. Both kinds of dependence highlight the contingency of facts underscored by many social constructivists. The claim that facts are contingent means they need not have obtained at all, or need not have obtained in the way they currently do, specifically because they are constituted by intentional activities in accordance with values, needs, and interests which could have been otherwise (Hacking 1999: 5, 68-80; Nelson 1994: 541).

Call fact objectivism the negation of fact constructivism. It is the thesis that not all facts that are in principle graspable are constructed (see Kukla 2000: 19; Boghossian 2006: 22, 25-26). As before, by ‘independent’ I mean facts are constitutively, and perhaps, but not usually, conditionally apart from intentional actions. Conditional dependence about facts implies that even if intentional beings had never existed, the world would still contain many of its current facts, such as those about the sun, mountains, and reptiles (see Boghossian 2006: 22). Fact objectivists who believe facts are neither conditionally nor constitutively dependent on intentional actions are committed to noumenal facts (e.g., Devitt 1991). Finally, of course, no fact objectivist need deny the claim that many facts are indeed constructed, such as those about sports rules.

Constructivists claim that objects and facts we might think exist independent of all intentional activity, such as planets, electrons, and dinosaurs, are socially constructed. It is usually maintained that construction occurs by virtue of certain kinds of descriptions (see Goodman 1978: 94; Rorty 1998: 87, 90; Boghossian 2006: 27-28; Haslanger 2003: 310). Descriptions explain how objects and facts are constructed. According to the constructivist, once
intentional beings adopt a particular scheme for describing the world there come to be objects in
the world and facts about the world (see Boghossian 2006: 28). Object constructivism is
therefore best understood as the thesis that the identity conditions of all objects that are in
principle graspable are essentially dependent on the occurrence of certain kinds of descriptions,
and, likewise, fact constructivism is best understood as the thesis that all facts that are in
principle graspable are essentially dependent on the occurrence of certain kinds of descriptions.

Finally, constructivists sometimes distinguish two domains in which we construct facts.
Call *scientific facts* those facts confirmed (either conditionally or constitutively dependent on
intentional activities) by the institution of science, and *non-scientific facts* all other facts. It is a
scientific fact that, for example, Jupiter is a planet, while it is a non-scientific fact that free
throws in basketball count for one point.\(^{181}\) Fact constructivism is a thesis about *all facts*. Call
*scientific constructivism* the thesis that all *scientific facts* that are in principle graspable are
essentially dependent on scientific descriptions.\(^{182}\) Because scientific constructivism is entailed
by fact constructivism, constructivists may be committed to the former but not the latter — but a
fact constructivist must be a scientific constructivist.

4.2 CURRENT VIEWS OF NIETZSCHE ON OBJECTS

I want to show that Nietzsche is committed to object constructivism, which entails
commitment to scientific constructivism. In this chapter, I maintain that Nietzsche is an object
constructivist about ordinary objects, or medium-sized, macroscopic objects. His comments

\(^{181}\) I remain neutral about whether what might be called “social facts,” or facts in the social sciences, fall within the
domain of science proper. Nietzsche’s view is that science includes social facts, but this is controversial today. It
may prove very difficult to distinguish between scientific and non-scientific facts, but for now I am assuming the
distinction (see also Kukla 2000: 25). Nietzsche’s treatment of scientific facts, for the most part, applies also to non-
scientific facts. Nevertheless, this dissertation is concerned only with his view of scientific facts.

\(^{182}\) Showing that all scientific or non-scientific facts are constructed requires an argument against noumenal facts
(see Kukla 2000: 25).
about ordinary objects, however, appear to support a variety of different readings. Sometimes he asserts that objects do not exist, or are “erroneous articles of faith” (GS 110, see also TI “Reason” 2). Other times he claims that objects exist as “complexes of events” (WP 552), or “sums of effects” (WP 551, see also WS 11). Elsewhere he proposes that, “it is we who created the ‘thing’” (WP 521, see also GS 58). Additionally, these passages, which indicate that Nietzsche wants to revise our common sense conception of objects, conflict with the majority of passages in Nietzsche, which seem to assume our common sense conception. Various positions can be drawn from this evidence. Some readers believe Nietzsche holds the common sense realist view that ordinary objects are just the everyday objects of experience that have a determinate nature apart from our activities (Clark 1990; Leiter 1994; 2002). Others maintain that for Nietzsche there are no ordinary objects because there are only bundles of forces, a view which I call eliminativist (Nola 1999, 1987: 544ff.; Danto 1965: 72, 86ff.; Stack 2005: 106; Braver 2007: 130; Young 1992: 63). Still others contend that Nietzsche reconceptualizes objects as complex configurations of bundles of forces, or simply bundles of forces. One version of this reconceptualization reading holds that Nietzsche thinks a bundle of forces is an object only by virtue of our interpretations (Schacht 1983: 155; Nehamas 1985: 83, 92; Anderson 1996: 327, 1998: 11, 25; Cox 1999: 152-163). This is an instance of object constructivism. An opposing version, call it reductionism, claims that a bundle of forces is an object and nothing more is required for a bundle to be an object, most importantly our interpretations (Richardson 1996: 107 ff.; Hales and Welshon 2000: 70-75; Doyle 2009: 177 ff.). This is a “reductionist” position because it holds that objects are identified with bundles of forces, Nietzsche’s fundamental ontology.
These views relate to one another as follows. Common sense realism and reductionism are incompatible with every other view, with the possible exception of each other. The reductionist can be interpreted as giving a more thorough description of the common sense, everyday objects that exist independent of our activities on the assumption that Nietzsche is committed to the will to power ontology. Defenders of the common sense realist approach often deny this assumption, however. Hence the best argument against reductionism would include an argument against the claim that objects reduce to will to power in addition to a sound argument against common sense realism. Eliminativism and object constructivism are incompatible with every other view, including each other. The main difference between these two positions is that object constructivism, unlike eliminativism, attempts to account for the evidence that Nietzsche’s work generally seems to assume that ordinary objects exist, whereas eliminativism, unlike object constructivism, emphasizes the evidence that Nietzsche denies the existence of objects. If Nietzsche holds either of these two positions, he could not consistently hold any other view.

Throughout his writing career Nietzsche was persistently concerned with issues regarding our conception of ordinary objects, especially how our view of ordinary objects relates to our understanding of facts, causality, personhood, substance, and other important phenomena.183 Thus, comprehending his general philosophical position requires understanding which view of ordinary objects does his account most justice. I now challenge the common sense realist, eliminativist, and reductionist interpretations of Nietzsche’s view of ordinary objects. My claim is that none are consistent with the texts and that their failings strongly suggest he embraces object constructivism, the reading I defend in the following section.

183 See, e.g., TL; HH I: 11, 19; GS 57, 58, 110; BGE 12, 16, 17, 21; TI “Reason” 2, 5, “Errors” 3; GM III: 12; LN 34[131], 35[35], 36[21], 36[23], 1[28], 2[77], 2[87], 2[139], 2[149], 2[150], 2[152], 5[19], 6[11], 7[48], 7[54], 7[63], 9[91], 9[97], 10[202], 11[73], 11[120], 14[79], 14[98], 14[122].
4.2.1 Common Sense Realism

Clark (1990) and Leiter (1994, 2002) claim that the mature Nietzsche is a common sense realist. Recall Clark offers a developmental reading of Nietzsche for which Leiter expresses his support (see Chapter 1.1). She thinks between the publication of BGE (1886) and GM (1887) Nietzsche rejects his early commitment to the falsification thesis that all our beliefs are false and adopts a “common sense version of the correspondence theory” of truth, according to which beliefs are true when they correspond to objects of our experience (Clark 1990: 31). Clark argues that the mature Nietzsche is a “common sense realist” who takes the world to exist ontologically independent of our representations of it (ibid, 40; see also Leiter 1994: 334). On this position, our perspectives are trivial conditions for grasping objects, and not constitutively related to objects (see also Leiter 1994: 350). Hence common sense realism assumes object objectivism.

Interpreting Nietzsche as a common sense realist is problematic because the passages he devotes to understanding objects attack the view that objects are ordinary, independently existing things. For example, in HH he remarks:

The invention of the laws of numbers was made on the basis of the error, dominant even from the earliest times, that there are identical things (but in fact nothing is identical with anything else); at least that there are things (but there is no ‘thing’) (HH I: 19).

The claim that “there is no ‘thing’” is perfectly general. In GS he reiterates that the view “that there are things” is an “erroneous article of faith” (GS 110), and in TI he claims to expose reasons for positing “the lie of thinghood” (TI “Reason” 2). These passages all reject object objectivism. Moreover, Clark does not cite any passages of behalf of her reading. From her

184 These passages are overwhelmingly supported in unpublished material (see, e.g., LN 34[131], 1[28], 9[91], 9[97], 10[202], 14[79]; WP 479, 495, 521, 551, 552, 558, 624, 634).
claim that Nietzsche rejects the falsification thesis she infers that Nietzsche thinks knowledge claims refer to ordinary objects (see Clark 1990: 103-107).

Given Clark’s developmental reading she could respond by arguing that in HH (1878) and GS (1882) Nietzsche is committed to a metaphysical correspondence theory of truth. Nietzsche denies objects because he construes object-hood in terms of things-in-themselves. Clark recognizes that the later-period TI (1889) passage directly threatens her interpretation (1990: 105). Her strategy is to explain it away. Here are the relevant passages:

[the senses] do not lie at all. What we make of their testimony, that alone introduces lies; for example, the lie of thinghood [Dinglichkeit], of substance, of permanence. “Reason” is the cause of our falsification of the testimony of the senses (TI “Reason” 2, translation modified185).

precisely insofar as the prejudice of reason forces us to posit . . . thinghood . . . we see ourselves somehow caught in error, compelled into error (TI “Reason” 5, translation modified).

According to Clark there is no reason to think Nietzsche considers object-hood necessarily to be a “lie” because he only attacks the “metaphysical concept of a substance, the concept of an unchanging substrate that underlies all change,” and not “the ordinary concept of a thing” (1990: 107). She claims Nietzsche scare-quotes “reason” in TI “Reason” 2 because it refers to “pure reason,” the Kantian faculty of a priori knowledge, which he denies (ibid, 106). The senses that “do not lie,” but belief in “reason” gives rise to a “faith in grammar” that leads metaphysicians to posit the view that objects, the subjects of sentences, have an underlying, unchanging substrate which persists through changes in predication. Since this problem only applies to a few misguided metaphysicians, Clark thinks we have no reason to suppose that TI denies the ordinary concept of object-hood.

185 Large translates Dinglichkeit as “materiality,” but I see no reason for this. It literally translates as “thing-hood-ness,” which says nothing about being material. Large probably thought his translation best reflected Nietzsche’s general attack on materialistic atomism.
Clark is right that Nietzsche rejects the metaphysical conception of an object. However, there is reason to think he also denies the ordinary, common sense conception of an object. In GS 110, for example, he says we have operated with certain “erroneous articles of faith . . . that there are enduring things, that there are identical things, that there are things” (my emphasis). Here Nietzsche is critical of both the metaphysical view of object-hood – things construed as “enduring things” and “identical things” (cf. HH I: 18) – and the normal, everyday conception of an object. Nietzsche appears to express the same thought in TI:

reason believes . . . in the I as Being . . . and projects the belief in the I-substance onto all things – only then does it create the concept ‘thing’. . . Being is thought in, foisted in everywhere as cause (TI “Reason” 5).

The assertion that belief in I-substance is responsible for the emergence of “the concept ‘thing’” does not commit Nietzsche to denying the metaphysical conception of an object and retaining the ordinary one. The passage is giving a general account of the genesis of the concept object. As it stands, there is no reason to prefer Clark’s interpretation. And there is stronger evidence against her reading. Nietzsche seems to clarify the target of his origin story in a way that fails to support the common sense realist reading. In a later passage, he comes back to the topic of “the error of confusing the mind as cause with reality” within the context of his denial of object-hood:

The thing itself, to say it again, the concept of thing: just a reflection on the belief in the I as cause . . . And even your atom, my dear mechanicians and physicists, how much error, how much rudimentary psychology still remains in your atom! Not to speak of the ‘thing-in-itself’, the horrendum pudendum [horrible shameful part] of the metaphysicians! (TI “Errors” 3)

The “the thing itself” and the “concept of thing” are perfectly common ways of discussing the normal, everyday conception of an object. By reminding the reader that he is “again” talking about the “concept of thing,” Nietzsche is likely referring back to TI “Reason” 5, since that
passage first discusses object-hood and introduces the error of positing I-substance as cause. This suggests that the origin story in “Reason” 5 is at least meant to target the emergence of the ordinary conception of an object. Furthermore, in TI “Errors” 3 Nietzsche criticizes both the everyday and the metaphysical (“thing-in-itself”) view of object-hood – just as he does in passages from earlier in his corpus, such as GS 110. So, because the passages about object-hood in TI can plausibly be read as rejecting the ordinary, common sense view of an object – which is consistent with passages throughout his work – it seems reasonable to conclude that Nietzsche is not committed to a common sense realist conception of objects.\textsuperscript{186}

Clark and Leiter’s position is also unpersuasive because Nietzsche makes claims that reject the object objectivist position that objects are merely conditionally dependent on our activities. Nietzsche says, “it is we who created the ‘thing’” (WP 521, see also LN 2[152]; GS 58).\textsuperscript{187} This passage supports a constructivist conception of objects, which, given the arguably radical nature of the thesis, is also consistent with Nietzsche’s denial of the ordinary, everyday conception of objects. If Nietzsche embraces object constructivism, however, he must deny common sense realism.

\textsuperscript{186}So, why would Nietzsche scare-quote “reason” when saying it causes us to falsify sense evidence if not to signify a “faith in grammar” seducing metaphysicians to posit the metaphysical conception of an object? It seems plausible to me to think that in that particular section Nietzsche may have just wanted to highlight the point that we are not doing philosophy as \textit{reasonably} as we could be. This might be why he \textit{fails} to scare quote the same word three sections later when making the very claim about language and metaphysics central to Clark’s reading: “we become involved in a crude fetishism when we make ourselves conscious of the basic premises of the metaphysics of language, in plain words: of \textit{reason}” (TI “Reason” 5). In this passage, the term is not scare-quoted for the very reason Clark claims it should be, in which case a primary consequence of her understanding of why it is scare-quoted earlier seems unjustifiable.

\textsuperscript{187}As he does in other passages (e.g. GS 58), Nietzsche seems to scare-quotes ‘thing’ to signify that while he wants to remain committed to the existence of objects, he is \textit{not} talking about the ordinary conception of a thing, but rather one reconceived from the vantage point of our constructive activities. However, he is not always consistent on this point – see, e.g., GS 110; WP 557.
4.2.2 Eliminativism

Robert Nola (1999, 1987: 544ff.) is an important contributor who takes Nietzsche’s denial of our ordinary conception of an object at face value. Nola claims that Nietzsche eliminates ordinary objects from his ontology. Nola reconstructs Nietzsche’s argument as follows (1999: 93):

1. All objects are substances, or are bits of substantive matter, with identity conditions.
2. Anything which is a nexus of force-power (NFP) has no identity conditions.
3. So a NFP cannot be a substance, or substantive matter.
4. The only thing which exists is the total set of NFPs.
5. So there are no substances or bits of substantive matter with identity conditions.
6. So there are no objects.

The relevant premises to examine are (1), (2), and (4). Nola justifies (4) by taking Nietzsche at his word when he claims the world is “‘will to power’ and nothing else” (BGE 36). Since I have tried to defend Nietzsche’s will to power ontology, I will grant Nola premise (4), set (1) aside, and look at (2).  

Now, (2) claims that bundles of forces cannot have identity conditions. Nola argues that Nietzsche embraces (2) for the following reasons. If the world is will to power, as Nietzsche believes, then it is composed of unstable configurations of bundles of forces, or what Nola calls “nexuses of force-power (NFP)” (1999: 93). If the world is composed of NFP, everything is in a “state of flux,” which implies that for Nietzsche “nothing has any continuing identity” (ibid).

He cites Nietzsche in support of this: “[1] Continual transition forbids us to speak of ‘individuals’ etc; [2] the ‘number’ of beings is itself in flux” (WP 520, my brackets). The first

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188 Nola never discusses why Nietzsche endorses (1). My guess is that Nietzsche appears to be a nominalist who thinks all objects are concrete and material.

189 There is a tension in Nola’s presentation: premise (2), which reads “Anything which is a nexus of force-power (NFP) has no identity conditions,” is not the same thing as saying that since everything is in a “state of flux” it is the case that “nothing has any continuing identity” (Nola 1999: 93). Premise (2) denies the view that objects have identity conditions at all, while Nola’s explanation of his position only denies the view that objects have identity conditions over time. Since Nola’s view rests in his given argument I will concentrate on that stronger claim and not the weaker claim implied by his explanation of the argument.
clause says there can be no “individual” existents because of “continual transition,” which Nola interprets as saying there can be no objects if the world is will to power. But there are obvious tensions in the second clause. Nietzsche seem to scare-quote ‘number’ to signify that there cannot be “individuals,” but he also seems to think it makes sense to claim that there are particular existents (“beings”) which have certain properties (a being “is” something) – for instance, they have the property of being countable (what is “in flux” is the number of beings). So, in direct contrast to the first clause, it appears Nietzsche may allow objects in his ontology. My claim is that there is a way to read these clauses as consistent with one other which does not support Nola’s view.

Take the first clause, which reads “Continual transition forbids us to speak of ‘individuals’ etc.” This is the first sentence of WP 520. Nietzsche goes on to say:

The principle of identity has behind it the “apparent fact” of things that are the same. A world in a state of becoming could not, in a strict sense, be “comprehended” or “known”; only to the extent that the “comprehending” and “knowing” intellect encounters a coarse, already-created world, fabricated out of mere appearances but become firm to the extent that this kind of appearance has preserved life – only to this extent is there anything like “knowledge.”

Nietzsche claims that “only to the extent that the ‘comprehending’ and ‘knowing’ intellect encounters a coarse, already-created world . . . is there anything like ‘knowledge.’” So, a “world in a state of becoming” – a world Nola regards as being in a state of continual transition or will to power” – cannot be “‘comprehended’ or ‘known’” if knowledge requires apprehending things independent of our constructive activities. The materials for construction are “appearances,” or the ways in which the empirical world affects us, and for Nietzsche we construct “things” out of “appearances.” He understands “things” as objects with certain identities. He explains that we can meaningfully apply “the principle of identity” that “things are the same” just in case that
principle refers to an “already-constructed world.” The “already-constructed world” is a world populated by objects constitutively dependent on our activities. “Continual transition” denies “individuals” only if objects are thought to exist constitutively independent of our constructive activities. Thus, according to Nietzsche identity conditions of “individuals” within a world of becoming are possible if conceived to be dependent on our constructive activities. Although Nola claims that since Nietzsche believes everything is in a “state of flux” he denies “continuing identity,” Nietzsche only rejects a constitutive-independence view of diachronic identity, not identity altogether. It is not the case that NFP have no identity conditions – at least for the reason Nola offers. Hence Nietzsche is not committed to premise (2), in which case he is not committed to Nola’s eliminativist conclusion in (6).

This reading of the first clause helps to explain the second clause, which reads: “the ‘number’ of beings is itself in flux” (WP 520). At first glance, it seems that Nietzsche scare-quotes ‘number’ to flag that there cannot be what the first clause calls “individuals.” Above, however, I suggested that the second clause appears to allow for the existence of objects in Nietzsche’s ontology. How it does is not clear. But if in the first clause ‘individuals’ is flagged and still allows for the existence of objects, then it is likely that there is a parallel explanation for why he scare-quotes ‘number’ in the second clause. Since “individuals” are possible only in relation to our constructive activities, it is reasonable to think that according to Nietzsche we contribute to making it the case that the concept *number* refers to objects.

To see how, it is necessary to see why Nietzsche says logic and mathematics are “a means and measure for us to *create* reality . . . for ourselves” (WP 516, see also HH I: 11, 19; GS 111, 121; BGE 21, cf. 4). I address this issue in full in Chapter 5, but for now it will be sufficient to say that Nietzsche maintains that we make it the case that entities within the
domains of mathematics and logic have certain properties. Take his remark that, “the invention
of the laws of numbers was made on the basis of the error . . . that there are identical things (but
in fact nothing is identical with anything else)” (HH I: 19). Now, take the set of natural
numbers, that is, the ordinary counting numbers 1, 2, 3, . . ., and so on. One can recursively
define addition on the natural numbers by setting \( x + 0 = x \) and \( x + S(y) = S(x + y) \) for all \( x, y \) in
the set of natural numbers, where \( S \) should be read as "successor," only if any natural number
instantiated as \( x \) could also be instantiated as \( y \). This recursive definition works only if natural
numbers can be instantiated by identical abstract objects – e.g., both ‘1’ and ‘2’ must be
substitutable for \( x \). If we grant with Nietzsche that “nothing is identical with anything else” (HH
I: 19, see also GS 111) – and he thinks “knowledge educated in the highest scientificality”
provides good reason to believe this assumption (HH I: 18) – then for addition within natural
numbers to work it must be the case that our contributions render natural numbers properly
substitutable. We establish a vital stipulation about the operation of variables instantiating
natural numbers. Nietzsche says it is “an imperative about what shall count as true” in a
particular domain (LN 9[97]). Our activities make it the case that natural numbers can be
usefully instantiated by certain kinds of objects (viz. abstract) with certain kinds of properties
(viz. identity). Nietzsche remarks, “to a world which is not our idea the laws of numbers are
wholly inapplicable: these are valid only in the human world” (HH I: 19).\(^{190}\) The “law” of
addition is an example that shows how mathematics and logic is a “means” for us to “create
reality . . . for ourselves” (WP 516).

It is reasonable to think Nietzsche scare-quotes ‘number’ in the second clause of the first
sentence in WP 520 to flag the concept’s unintelligibility if conceived independent of our

\[^{190}\text{Nietzsche’s nominalism is interesting. He denies that abstract objects (and universals) exist apart from human construction and claims instead their existence is dependent on our contributions within certain perspectives.}\]
intentional actions. This reading complements my interpretation of the first clause, and both clauses allow for the existence of objects. Although Nola quotes WP 520 in his defense, there is better reason to believe that it is incompatible with his eliminativist interpretation.

Nietzsche also offers a positive conception of ordinary objects that is in direct tension with the eliminativist reading. He says, “a ‘thing’ is the sum of its effects [i.e. properties], synthetically united by a concept” (WP 551, my brackets, cf. GS 58). I argued in Chapter 3.2.2 that if something is a “sum of its effects,” then it is a bundle of forces, or what Nola calls a “nexus of force-power” (NFP). If so, then this passage provides a reconceptualization of object-hood on the assumption that objects are composed of bundles of forces. To understand this reconceptualization it is important to see that the idea of *synthetic unity by a concept* is distinctly Kantian. Kant holds that sensory information is given to us in an undifferentiated manner; we sense only the raw material for representing objects. Unifying this data and taking it to represent particular objects requires organizing it in terms of some conceptual scheme. Kant calls this act of combination *synthesis* (see Kant 1998: B103). Nietzsche takes over from Kant the idea that concepts “unite,” or organize, the material that affects our senses. Concepts organize various bundles of forces into discrete objects and represent aggregates of forces as some kind of thing or other. Provided that relations of forces effectively constitute properties (see Chapter 3), and properties constitute identity, in the above quote Nietzsche appears to maintain that bundles of forces have identity conditions if conceptually organized. If this is right, then it is not only more evidence that he does not embrace premise (2) of Nola’s argument, the claim that anything which is a nexus of force-power (NFP) has no identity conditions, but it also suggests Nietzsche embraces object constructivism.
4.2.3 Reductionism

The reductionist strategy contends that Nietzsche reconceptualizes objects by identifying them with bundles of forces, rather than eliminating them. For the reductionist objects are intrinsically organized bundles of forces. For instance, Hales and Welshon claim that for Nietzsche “bundles are individuated intrinsically” (2000: 72). Doyle reiterates that on Nietzsche’s account, “objects are individuated according to the intrinsic natures of its component parts” (2009: 177). And Richardson suggests this much when he writes that according to Nietzsche “reality . . . consists in these wills [i.e. bundles of forces]. Only by and in them does the chaos and indeterminacy . . . rise to ‘being’ . . . they give [the world] its ‘joints’ and so ‘units’” (1996: 107-108, my brackets). The claim that bundles are intrinsically organized indicates that the forces that compose bundles exhibit a relatively stable, collective orientation such that individuating bundles does not require any “external” interpreting subject.

Reductionists support their reading by arguing against the view that Nietzsche endorses object constructivism (see Hales and Welshon 2000: 68-75; Doyle 2009: 177). They quote Nietzsche as saying: “[1] When a certain unity obtains in the grouping of things, one has always posited spirit as the cause of this coordination: for which notion there is no ground whatever . . . [2] there is no ground whatever for ascribing to spirit the properties of organization and systematization (WP 526, my numbers in brackets).

In response, this quotation elides something important: [1] and [2] are different paragraphs, and [2] in full says:

We shall be on our guard against explaining purposiveness in terms of spirit: there is no ground whatever for ascribing to spirit the properties of organization and systematization. The nervous system has a much more extensive domain; the world of consciousness is added to it. Consciousness plays no role in the total process of adaptation and systematization (ibid).
It strains the text to read this as a discussion about when a bundle of force becomes an object. Nietzsche is discussing the insignificant role consciousness plays with respect to the teleology of organic development. Hence I do not find that [2] refutes Nietzsche’s commitment to object constructivism. However, [1] does arguably attack object constructivism, as well as scientific constructivism:

When a certain unity obtains in the grouping of things, one has always posited spirit as the cause of this coordination: for which notion there is no ground whatever. Why should the idea of a complex fact be one of the conditions of this fact? or why should the notion of a complex fact have to precede it as its cause? – (ibid).

Nietzsche arguably claims that object and scientific constructivism are incoherent because intentional activities neither cause unities to exist nor cause the existence of facts. But notice this only targets causal accounts of unity or fact, not constitutive accounts, which appears to be Nietzsche’s view. Nietzsche adopts Kant’s revolutionary Copernican idea that we can only know objects that we constitute (see Chapter 1.6). So there is reason to think [1] is consistent with Nietzsche’s considered position.

Even if we grant that [1] contains evidence against the object constructivist reading of Nietzsche’s conception of ordinary objects, it is the only passage of its kind – and it appears in the notebooks. Neither Hales and Welshon nor Doyle refer to any published material in their defense. Moreover, the published texts appear to support object constructivism. For instance, Nietzsche says, “it is enough to create new names and valuations . . . in order to create new ‘things’” (GS 58, see also 57, 112, 121, 301; HH I: 11, 16, 19; D 210; BGE 21, 192; GM III: 12). Any reading that relies on unpublished notes to the exclusion of published material

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191 The portion of GS 58 quoted here appears to be consistent with the view that all objects exist independent of us at some time \( t \) and objects are only constructed at \( t_i \). So, object objectivism is true. However, the full context of the passage denies this possibility – it suggests we construct all objects (see also GS 57).
inconsistent with unpublished ideas runs an extremely high risk of misunderstanding Nietzsche’s thought. If published and unpublished material conflict, priority should be given to the former. I therefore give precedence to the constructivist conception of objects Nietzsche espouses in published passages.192

Nietzsche also argues against reductionism in support of object constructivism. He says the reductionist view “That things possess qualities in themselves, irrespective of interpretation and subjectivity, is a perfectly idle hypothesis: it would presuppose that interpretation and subjectivity are not essential [Dass die Dinge eine Beschaffenheit an sich hätten, ganz abgesehen von der Interpretation und Subjektivität, ist eine ganz müßige Hypothese: es würde voraussetzen, dass das Interpretieren und Subjektsein nicht wesentlich]” (LN 9[40], cf. GS 57). The argument is that the properties of an object that determine its identity are essentially dependent on our interpretations, and if so, then any properties an object has essentially independent of our interpretations cannot sufficiently determine its identity. It follows that intrinsic properties do not sufficiently determine an object’s identity. Thus, Nietzsche appears to prefer object constructivism to reductionism.193

The final problem with reductionism is that its supporters commonly claim that for Nietzsche an object is a bundle of forces constituted through its contextual relationships with all other objects (as other bundles of forces) (Richardson 1996: 105-108; Hales and Welshon 2000: 63).194 Call this view Contextual Constitution. Nietzsche is indeed committed to such a view (see Chapter 3.2.2). He says, for example, “[a bundle’s] essence lies in their relation to all other

192 There are also an overwhelming number of passages which support worldmaking in the notebooks (see, e.g., PT 101; TL; WP 551, 556, 560, 606; LN 2[152], 9[91], 9[106]).
193 Hales and Welshon (2000), but neither Doyle (2009) nor Richardson (1996), recognize that WP 560 is inconsistent with their reductionist reading. However, they never attempt to explain it away!
194 Doyle (2009): 181-194 is an exception because she believes forces have intrinsic properties.
quanta” (WP 635, cf. 567, 568). Contextual Constitution, however, is inconsistent with the reductionism. Nietzsche claims that “an atom of force” is more “concerned” with relations in its own “neighborhood,” rather than its global relations (WP 637). So while every bundle of forces constitutively depends and is depended on by every other bundle, every bundle constitutively depends and is depended on by some bundles more than others. Consequentially, some relations a bundle has with other bundles are more constitutive of its identity than others. Importantly, Nietzsche maintains that our being in transactional relations with bundles contribute to establishing the identities of objects: “A thing = its qualities; but these equal everything which matters to us about that thing; a unity under which we collect the relations that may be of some account to us” (LN 2[77], cf. GS 58). Recall that according to Nietzsche a bundle’s “qualities” are relational properties and concepts are the “unity under which we collect” properties in relation to what “may be of some account to us” (see also WP 551). Contextual Constitution is inconsistent with reductionism because it implies that an interpreting subject must be in transactional relations with bundles of forces in order for them to be objects.

In sum, the reductionist reading is untenable because the passage used to support reductionism against object constructivism fails to capture Nietzsche’s considered viewpoint; Nietzsche argues against reductionism for object constructivism; and Nietzsche’s commitment to Contextual Constitution is incompatible with a commitment to reductionism. Despite these difficulties, however, the reductionist reading seems right to hold that Nietzsche thinks what we take to be ordinary objects are most often bundles of forces that we encounter as being unified apart from our activities. Nietzsche believes intrinsic organization has a role to play in accounting for the conditions under which something counts as an object – just not the entire role. I return to the importance of this point at the end of the chapter.
4.3 NIETZSCHE’S OBJECT CONSTRUCTIVISM

I turn now to describing Nietzsche’s object constructivism about ordinary objects. In Chapter 2, I suggested that features of Nietzsche’s perspectivism provide reason to think the ontological thesis of objectivist realism may not be realizable in the conditions of this world (see §7). Perspectivism appears to indicate that there will always be a constitutive relation between the identity conditions of objects and our interpretations. The goal of this section is to explain Nietzsche’s view that a bundle of forces is an ordinary object only by virtue of our interpretive activities within a cognitive perspective. It will be helpful first to make a few remarks about Nietzsche’s conception of objects in general, that is, about his conception of either macroscopic or microscopic objects, as well as comment on his understanding of some terms associated with his brand of constructivism.

4.3.1 Objects in General

Nietzsche shows allegiance to some form of constructivism about objects when he comments that it is “we who created the ‘thing’ [Dinge]” (WP 521, see also GS 58). Objects appear to come into being by virtue of our activities. The basic idea behind this process is explained in GM III: 12:

Let us guard against the snares of such contradictory concepts as “pure reason,” “absolute spirituality,” “knowledge in itself”: these always demand that we should think of an eye that is completely unthinkable, an eye turned in no particular direction, in which the active and interpreting forces [die aktiven und interpretirenden Kräft], through which alone seeing becomes seeing something [durch die doch Sehen erst ein Etwas-Sehen wird], are supposed to be lacking; these always demand of the eye an absurdity and a nonsense. There is only a perspective seeing [ein perspektivisches Sehen], only a perspective “knowing” [ein perspektivisches “Erkennen”].
Nietzsche says it is “the active and interpreting forces though which alone seeing becomes seeing something” and “there is only a perspective seeing, only a perspective ‘knowing’.” Thus, objects can appear as particular kinds of things or other only in relation to our interpretive activities, which are partially constitutive of a perspective. This relation between objects and perspectives is reiterated in the later notes, where Nietzsche remarks, “‘beings’ are part of our perspective [‘das Seiende’ gehört zu unsrer Optik]” (WP 517), and that “the question ‘what is that?’ . . . the ‘essence’ [Essenz], the ‘essential nature’ [Wessenheit], is something perspectival [Perspektivisches]” (WP 556, translation modified, see also 567). It is crucial not to identify these passages with two possible readings of Nietzsche’s object constructivism. Nietzsche does not hold that all objects are constructed literally, just as, for example, a carpenter fashions a table. “Thing,” Nietzsche explains, is a “construction of thinking” (LN 35 [35]). Nietzsche’s view also does not support the Berkelian idealist thesis that objects are nothing more than non-material collections of ideas. Nowhere does Nietzsche call into question the existence of the material world or consider objects to be solely the products of our minds (see, e.g., BGE 15). Nietzsche’s object constructivism is the view that objects come into existence when we organize the world in experience, specifically when we fashion descriptions of experience. When we establish “names,” he says, we establish “‘things’ [Dinge]” (GS 58).

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195 The status of the “we” will be examined below, where I examine whether subjects are also constructed.

196 Nietzsche employs name [Name] interchangeably with word [Wort] and, unlike some contemporary philosophers (e.g. Kripke 1980), he does not attempt to make any sharp distinction between names and concepts. Names are said to be “signs for concepts” (BGE 268), that is, they signify or express concepts, and “concepts are possible only when there are words” (WP 506). There can be no words without concepts, and vice versa.
4.3.2 Remarks on Key Terms

Before continuing it is important to have a general understanding of Nietzsche’s conception of perspective, interpretation, value, and concept, since he often employs these notions when discussing objects. However, I cannot do full justice to the meanings of these concepts here. I only describe, in broad strokes, ideas that help clarify Nietzsche’s object constructivism. I refer the reader to other works on Nietzsche for further justification of my reading.

Nietzsche’s conception of ‘perspective’ [Perspektive] is complicated. It is often times associated with an optic metaphor, which suggests a somewhat fixed, private point of view (see, e.g., GM III: 12). Yet he employs perspective-language far more extensively. He typically describes all worldly processes as perspectival, including events that transpire in organic and inorganic nature (for organic see BGE P, 11, 34, 188; GM II: 12; for inorganic see WP 567, 636; BGE 36). For Nietzsche configurations of bundles of forces are perspectival in the sense that the forces that compose configurations are organized in such a manner that they collectively increase influence from some standpoint. In view of Nietzsche’s ontology, then, I regard the notion of a perspective to indicate any organized system within the world (see also Schacht, forthcoming). Perspectives are identified by the various ways in which they are internally configured and situated externally in relation to others (ibid). Nietzsche’s examples of perspectives include anything from material biological systems to abstract forms of life characterized by particular ethical codes. In this dissertation I am interested in cognitive

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197 The following chapter, however, closely examines Nietzsche’s conception of interpretation, since it plays a crucial role in his view of representing objects.
perspectives, or those that purport to deliver knowledge about the world, which, for Nietzsche, are roughly those that constitute the sciences.

Nietzsche uses perspective-language in close association with interpretation-language (see GS 357, 374; WP 5, 556, 565, 590, 616, 617, 678, 804; LN 1[128]). He occasionally uses the two terms interchangeably. For example, in one passage he alternatively speaks of “the Christian interpretation” and “those Christian-ascetic moral perspectives” (GS 357, see also 374). Nonetheless, Nietzsche often considers interpretations to be partially constitutive of perspectives. For instance, he says “perspectives” consist in “active and interpreting forces” that allow “seeing to become seeing something” (GS III: 12). Additionally, in one telling notebook entry he explains that the basic “needs” and “evaluations” of an organism form an “incorporated” “system of interpretation” that gives the organism a particular “perspective,” such that “perspectives” are directed by “incorporated interpretations” (WP 678). From these passages, then, I take it that for Nietzsche interpretations generally codify the various ways perspectives are organized (see also Cox 1999: 111 ff.).

Nietzsche believes that perspectives and interpretations are essentially valuational (see GM II: 12; WP 590, 604-606, 616). A value [Werth] is roughly a condition that sustains some perspective: “In valuations,” Nietzsche says, “conditions of preservation and growth express themselves” (LN 9[38], see also 2[77], 34[264]; BGE 3, 6). Values sustain perspectives because they determine relations of significance for those systems (see also Richardson 1996). Many types of frameworks, such as biological systems, consist in relatively crude “values,” which might include rudimentary attractions to light or estimates of pleasure and pain (LN 1[97]).

Nietzsche employs a variety of terms for “interpretation”/“to interpret.” Most frequently are Interpretation/interpretieren and Auslegung/auslegen. But he also uses Ausdeuung/ausdeuten, Deutung/deuten, and Umdeutung/umdeuten. The choice between these appears to be stylistic rather than semantic.
Values become more complex in relation to the complexity of the organism. Human values, for instance, can guide reason-giving behavior.

Finally, Nietzsche’s Kantian historical context makes it necessary to examine his understanding of a concept [Begriff]. Nietzsche considers concepts to be representational tools that organize collections of sensations by applying general terms to them (see TL; BGE 192, 268). This is consistent with Kant’s account of an empirical concept, but Kant also famously holds that we are equipped with a set of non-empirical concepts (the “categories”). Kant argues that the categories cannot be called into question from experience because they are necessary a priori conditions that render experience possible. By contrast, Nietzsche declares that “all of our categories of reason are of sensual origin: derived from the empirical world” (WP 488) and “our concepts are inspired by our need” (WP 509). For Nietzsche empirical evidence indicates that all concepts are contingent and a posteriori because they are constructed in relation to our need to organize the world in experience (see TL; GM II: 12-13; III: 12; GS 110-111, 335, 354).

Nietzsche thinks bundles of sensations are organized by the application of concepts as follows:

A word becomes a concept precisely insofar as it simultaneously has to fit countless more or less similar cases – which means, purely and simply, cases which are never equal and thus altogether unequal. Every concept arises from the equation of unequal things. Just as it is certain that one leaf is never totally the same as another, so it is certain that the concept of “leaf” is formed by arbitrarily discarding these individual differences and by forgetting the distinguishing aspects (TL, see also BGE 192, LN 34[131]).

“Concepts,” he summarizes in a later text, “are more or less definite image signs for often recurring and associated sensations, for groups of sensations” (BGE 268). Concepts arrange

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200 In what follows, I use ‘term’, ‘designation’ or ‘general designation, and ‘concept’ interchangeably.

201 The empirical evidence Nietzsche cites comes from thinkers such as F.A. Lange (see Chapter 1). Other relevant influential figures on Nietzsche include Gustav Gerbers, whose philosophy of language, laid out in Die Sprache als Kunst (1871), is easily apparent in TL.
particulars that affect subjects in experience by abstracting away from their differences and applying general designations to their similarities. This process effectively renders “equal” what is “unequal.” For example, correct application of the concept *planet* requires overlooking differences in the individual astronomical objects considered planets, such as being either gaseous or terrestrial. Concepts have the ability to represent similar phenomena by virtue of this kind of simplification.\(^{202}\)

Nietzsche’s understanding of the process of conceptualizing sense data exemplifies a crucial way in which his account differs from Kant’s. Kant’s analysis of cognition makes a distinction between the faculties of sensibility and understanding. *Sensibility* is our passive capacity to intuit (or better, *apprehend* [*anschauen*]) objects by receiving impressions through the senses. Through intuition [*Anschauung*] we are given a raw manifold of sense data for representing objects. *Understanding* is the active power to think about objects through concepts. Understanding allows us to take raw sense data to represent objects by classifying (“synthesizing”) data in terms of some concept (Kant 1998: B103). This leads to a well-known proposition fundamental to Kant’s epistemology:

Without sensibility no object would be given to us, and without understanding none would be thought. Thoughts without content are empty, intuitions without concepts are blind . . . These two powers or capacities cannot exchange their functions. The understanding can intuit nothing, the senses can think nothing. Only through their union can knowledge arise (Kant 1998: A51/B75).

Kant has been criticized for his treatment of the raw data of intuition. The objection is that if there is no thought about raw data prior to synthesis, there is no cognitive role for that data to play – sense data in no way constrains what the faculty of understanding makes of it. It even no longer makes sense to talk about the sense manifold as unsynthesized. Such talk would refer to

\(^{202}\) One should not take this very basic view of the origins and operations of simple concepts to think that Nietzsche denies that concepts can be unique to particular phenomena.
something in principle inaccessible to our mode of cognition. Although sensory input is supposed to be *phenomenal* in Kant’s system, then, it actually appears *noumenal*. Sense data plays no role in our cognitive judgments and it cannot be meaningfully described.\(^{203}\)

Nietzsche embraces an *active* rather than *passive* view of the senses in relation to cognitive representation.\(^{204}\) He remarks, for example, “There could be no judgments at all if a kind of leveling had not first been carried out within the sensations” (LN 40[15], see also TL; GS 57, 111; BGE 24, 192; WP 521). This suggests that according to Nietzsche there cannot be intelligible thought unless our *senses themselves* somehow initially structure impressions. The reason for this is explained in a rich passage from the later notes:

> Without the transformation of the world into figures and rhythms there would be nothing “the same” for us, thus nothing recurrent, and thus no possibility of experiencing and appropriating, of *feeding*. In all perception, i.e. in the most original appropriation, what is essentially happening is an action, or more precisely: an imposition of shapes upon things . . . There is something active about our taking on a stimulus in the first place and taking it on as *that particular* stimulus . . . Thus arises our world, our whole world: and no supposed “true reality,” no “in-themselves of things” corresponds to this whole world which we have created, belonging to us alone. Rather it is itself our only reality, and “knowledge” thus considered proves only to be a *means of feeding* (LN 38[10], cf. GS 57, 111; BGE 4, 192).

Nietzsche rejects the idea that we are passively in contact with some raw sensuous manifold and holds instead that our sense organs actively arrange information to generate determinate perceptions. We experience “a stimulus,” for instance, as “*that* particular stimulus,” that is, not as a mere impression, but an impression characterized in some determinate manner. This is our “original appropriation,” which consists in “an imposition of shapes upon things” and enables the

\(^{203}\) See McDowell (2009) for some responses to these worries.

\(^{204}\) Not all notes are consistent with this view. At times he simply adopts Kant’s position. See, e.g., LN 34[55]: “our intellect . . . receives from the senses the raw material that it *interprets*” (cf. LN 2[90]). It is nonetheless safe to say that this passage is in the minority.
“possibility of experiencing.” So the determinate structuring that occurs at the level of sensation is a necessary condition for our mode of cognition.

Nietzsche avoids Kant’s mistake of making sense data similar to noumena. His account implies that we can make coherent judgments only about the material the senses transform. Representations can only be meaningfully compared with other representations, whether perceptual or descriptive, and not some realm we cannot in principle coherently represent. “We are in our own webs, we spiders,” Nietzsche observes, “and whatever we catch in them, we can catch nothing whatever other than what admits of being caught precisely in our webs” (D 117, see also GM III: 12). Our “webs” are our representational frameworks.

For Nietzsche, unlike Kant, the sense manifold also constrains our knowledge claims. In the passage he explains that “our world, our whole world” is one “we have created” by the transformation of sense data in order to facilitate “experiencing and appropriating,” and “knowledge” is one particular means of “experiencing and appropriating.” So the impressions our senses structure have a role to play in our cognitive judgments.

Why does Nietzsche think our sensory apparatus actively structures input? The idea seems to be that the perceptions generated by our sense organs are infused with conceptual and valuational content. In an aphorism entitled “To the realists,” he writes:

You sober people who feel armed against passion and fantastical conceptions and would like to make your emptiness a matter of pride and an ornament – you call yourself realists and insinuate that the world really is the way it appears to you: before you alone reality stands unveiled . . . But aren’t you too in your unveiled condition still most passionate and dark creatures . . . and still all too similar to an artist in love? And what is “reality” to an artist in love! You still carry around the valuations of things that originate in the passions and loves of former centuries! Your sobriety still contains a secret and inextirpable drunkenness! Your love of “reality,” for example – oh, that is an old, ancient “love”! In every experience, in every sense impression there is a piece of this old love; and some fantasy, some prejudice, some irrationality, some ignorance, some fear, and
whatever else, has worked on and contributed to it. That mountain there! That cloud over there! What is “real” about that? Subtract just once the phantasm and the whole human *contribution* from it, you sober ones! Yes, if you could do *that*! If you could forget your background, your past, your nursery school – all of your humanity and animality! There is no “reality” for us – and not for you either, you sober ones – . . . (GS 57).

The “realists” who presume they can perceive a mind-independent world without prejudice, or a world in which “reality stands unveiled,” are mistaken. Nietzsche maintains that conceptual and valuational discriminations are present “in every experience, in every sense impression” (see also BGE 192, GS 114; LN 34[167], 34[247], 2[95]). One cannot “subtract” the “human contribution” from perceptual representations – it is “inextirpable.” There is no “‘reality’” if perceiving the real requires perception without conception and valuation.\(^{205}\)

Nietzsche appears to arrive at this conclusion because conceptual and valuational content structure experience. Concepts systematize collections of sensations and valuations determine relations of significance between particular collections. Nietzsche also seems to think concepts are inherently valuational – he calls “green, blue, red, hard, [and] soft,” for instance, “inherited *valuations*” (LN 34[247], cf. TL, GS 110; BGE 211). Presumably, the reason is that designations that arrange sensory information must determine relations of significance. Concepts determine boundaries by a process of inclusion and omission, a process which presupposes some judgment about what is included or omitted – for example, *what* is soft. Hence conceptual arrangements must impose relations of significance – for instance, *this* is soft, while *this* is not. According to Nietzsche having determinate perceptual representations, such as

\(^{205}\) This differs from Kant’s view, of course, because Kant believes in noumenal reality.
“green, blue, red, hard [and] soft,” requires an active discrimination process articulated by conceptual and evaluative organization present in the sensory apparatus.\textsuperscript{206}

4.3.3 Ordinary Objects

These preliminaries allow us to examine Nietzsche’s view of how our descriptions of reality construct ordinary objects, specifically within domains of scientific discourse. I will use \textit{planet} as an example to help make sense of Nietzsche’s remarks. What holds for planets should extend to his examples, such as mammals (TL) or mountains (GS 57). Now, let \( \alpha, \beta, \gamma \ldots \) be all the astronomical objects in the universe. Astronomical objects are physical entities, associations, or structures that the astronomical sciences take to exist celestially, such as planets, moons, asteroids, star clusters, nebulae, or entire galaxies.\textsuperscript{207} Let \( A_p \) be the set comprised of all the planets, and \( A_1 \) to \( A_n \) be all simple combinatorial sets of astronomical objects (e.g. \( A_6 \) might contain \( \alpha, \gamma \); \( A_{14} \) only \( \beta \)). Only one combinatorial set of astronomical objects (e.g. \( A_{18} \)) is identical to \( A_p \). Each member of a set instantiates a property that is unique to members of that set, and that property has those members as its extension.

Suppose we want to know whether \( \alpha \) is a planet. Only knowing which astronomical objects (\( \alpha, \beta, \gamma \ldots \)) are members of which sets (\( A_1 \) to \( A_n \)) will not answer the question. It does not help to know the fact that \( \alpha \), for instance, is a member of \( A_{14} \) and not \( A_2 \). Answering the question requires knowing which set includes only instances of the property of being a planet.

\textsuperscript{206} Admittedly, Nietzsche’s view about how senses come to have conceptual and valuational content and how sensation leads to cognitive conceptual representation is incomplete. See Katsafanas (2005) for the best account of how to fill out the details. My intention is only to suggest that for Nietzsche conceptualization and evaluation are present in every representation, including perceptual (this separates him not only from Kant, notice, but also many of the later logical positivists).

\textsuperscript{207} Of course, one could be an eliminativist about large composite astronomical objects while preserving the formal properties of astrophysics. For example, one might prefer a sparse ontology that does not include stars and planets, but does include the basic constituents of the universe, i.e. quarks, leptons, bosons, fields, etc. However, astronomy is undoubtedly committed to the existence of composite astronomical objects.
Nietzsche claims that we construct ordinary objects by fashioning concepts that organize bundles of forces. He remarks, “A ‘thing’ is the sum of its effects, synthetically united by a concept” \([\text{Ein ‘Ding’ ist die Summe seiner Wirkungen, synthetisch gebunden durch einen Begriff}]\) (WP 551, cf. GS 58). Recall that for Nietzsche forces are ultimately identical to “effects” and relations of “effects” constitute properties (see Chapter 3.2.2). At first glance, then, Nietzsche’s position seems to be that ordinary objects are brought into being when we form concepts that group properties under a general designation. We contribute to establishing the identities of ordinary objects in the sense that the boundaries of our concepts determine the identity conditions of objects. Identity conditions are determined by the set of properties over which concepts generalize. We might say, for instance, that if \(\alpha\) is a planet and \(\beta\) is not, it is because our concept \(\text{planet}\) fixes the membership conditions of \(\text{A}_p\) such that \(\alpha\) has properties that constitute membership in that set while \(\beta\) does not, and this fixes \(\alpha\) as a planet.

Nietzsche also sometimes says that we bring properties themselves into being. “The very concept of ‘thing’ as well as all qualities,” he asserts, has its “genesis” in “the work of imaginers, thinkers, willers, [and] inventers” (LN 2[152], my emphasis). It is reasonable to read this as saying that properties can also be entities predicated by general designations. This requires us to amend the previous account. The collection of properties some concept \(C\) organizes determines the application conditions of the property predicated by \(C\). The identity conditions of \(C\)’s target are determined by which collection of properties constitutes the application conditions of the property predicated by \(C\). Application conditions apply to our \(\text{concepts}\), which predicate properties. Identity conditions govern the \(\text{objects}\) (if any) those terms refer to. Application conditions fix the conditions of identity for anything that meets them (see Thomasson 2007: 54-62).
What is it for an object to be a planet? According to the International Astronomical Union (IAU), the astronomical object $\alpha$ is an instance of the property PLANET just in case $\alpha$ (i) orbits our Sun, (ii) has sufficient mass for its self-gravity to overcome rigid body forces so that it assumes a hydrostatic equilibrium (nearly round) shape, and (iii) does not have any bodies of comparable size other than its own satellites under its gravitational influence (it has “cleared the neighborhood” around its orbit). The IAU established (iii) after discovering an astronomical object larger than Pluto they did not want to induct into $A_p$, primarily because doing so required adopting a definition of a ‘planet’ that set Pluto at an arbitrary minimum size. Accepting the third condition, however, required having to reclassify Pluto from planet to dwarf planet. Since Pluto shares a substantial portion of its gravitational orbit with large Kuiper belt objects, it does not satisfy (iii). Hence Pluto is not a planet.

Sukhsci would interpret Pluto’s reclassification to be the result of a change in theoretical commitments in astronomy about what constitutes the relevant interpretation of the conditions under which something counts as a planet. The relevant interpretation is crucial because, Nietzsche explains, “A thing = its qualities; but these equal everything which matters to us about that thing; a unity under which we collect the relations that may be of some account to us” (LN 2[77]). The three conditions that constitute what it is to be a planet are what “matter to us” about what it is to be a planet. Those conditions form the application conditions of the

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208 There is an issue here over whether Pluto has never been a planet or was once and now is not. Generally, realists assert the former, anti-realists the latter. The object constructivist view on offer need not take a position on this issue, since either view is dependent on our fashioning and applying the property planet.

209 Note two things. First, astronomy qualifies as a Nietzschean cognitive perspective. It is a type of system that delivers knowledge of celestial objects. Second, Nietzsche is not sympathetic to there being an analytic/synthetic distinction, a clear divide between natural and artificial kinds, metaphysical necessities, substances, essences, and the like, so my account does not proceed on these assumptions. One may discard these notions and still attack object constructivism (see Boghossian: 2006).
property of being a planet. They provide a framework for saying whether or not the term ‘planet’ applies to certain astronomical objects.

Nietzsche’s view that we construct ordinary objects when we form concepts entails that planets are constructed. So $\alpha$ is an instance of PLANET just in case astronomers decide that our concept $\textit{planet}$ refers to something that satisfies (i), (ii) and (iii), only something that satisfies (i), (ii), (iii) is the referent of $\textit{planet}$, and $\alpha$ satisfies (i), (ii), and (iii). Fixing the boundaries of our concept $\textit{planet}$ determines what is a member of $A_P$, or, for example, that $A_{14}$ but not $A_2$ will comprise $A_p$. It is not the case that $\alpha$ either is or is not a member of the set of all planets absent some criteria for what does and does not satisfy the membership conditions of that set. The state of affairs in which $\alpha$ either is or is not a planet does not exist independent of our representational activities. If $A_{14}$, but not $A_2$, comprises $A_p$, it may be because $A_{14}$ contains astronomical objects that satisfy the three main conditions, while $A_2$ contains these plus Pluto. Without determining a specific set of conditions as the correct application conditions for PLANET there is no unique set of objects that are only instances of PLANET. Our activities determine which set (e.g. $A_{14}$) is the extension of that property.

In sum, Nietzsche’s position is that astronomers construct objects such as planets when they determine the boundaries of the concept $\textit{planet}$. If $\alpha$ is identified as a planet and $\beta$ is not, it is because our concept $\textit{planet}$ makes it the case that PLANET has a certain set of application conditions, such as ORBITS THE SUN, etc., and $\beta$ but not $\alpha$ fails to satisfy one of those conditions. The identities of objects such as planets are constitutively dependent on the occurrence of our interpretive activities within the perspective of astronomy, because our descriptions make it the case that some conditions, and not others, determine the correct application of the property of being a planet. We control which application conditions are the
correct application conditions of the property of being a planet. In Nietzsche’s language, “‘This is considered to be’ is the real ‘This is’, the sole ‘This is’ [‘es gilt’ ist das eigentliche ‘es ist’, das einzige, ‘das ist’]” (LN 2[150], cf. TL, GS 58). This provides an example of Nietzsche’s view that the identities of ordinary objects are constitutively dependent on our interpretive activities occurring within a cognitive perspective.

It has so far been granted that astronomical objects ($\alpha, \beta, \gamma \ldots$) exist apart from our descriptions. One might object, however, that while we might construct PLANET, thereby playing a role in deciding that the property applies to $\alpha$ but not $\beta$, the objects to which we ascribe the property are themselves perfectly mind-independent. Astronomical objects, the objection goes, are not constructed. So the account on offer is consistent with the object objectivist thesis that the identity conditions of some objects are constitutively independent of the occurrence of our interpretive activities.

What goes for PLANET, however, also goes for ASTRONOMICAL OBJECT. We construct astronomical objects by organizing attributes that “matter to us” about some celestial entities, associations, or structures having the property ASTRONOMICAL OBJECT, and the result is that certain types of celestial phenomena are these sorts of objects. Take scattered astronomical objects, such as star clusters. Star clusters are composed of dozens to millions of stars. Determining if some aggregate of stars is a cluster requires determining what stars, of what kind, distributed over what spatial and temporal intervals, constitutes a cluster. We contribute to determining these boundaries in the same way we do planets.

The same argument can be made about STAR itself, and so on, for any objects Nietzsche thinks are fundamentally composed of bundles of forces. Whatever sort of object composed of forces one assumes for the sake of argument (e.g. interpretations of $\alpha, \beta, \gamma \ldots$) must have already
been constructed to be that sort. Our organization of some collection of properties determines the identities of things as some determinate kind of objects. No ordinary object is constitutively mind-independent – as Nietzsche remarks, “The question ‘what is that?’ is an establishment of meaning from some other viewpoint. The ‘essence’, the ‘essential nature’ is something perspectival” (WP 556).

4.4 OBJECTIONS AND REPLIES

The remainder of the chapter responds to three prominent objections to my reading that Nietzsche is committed to object constructivism about ordinary objects. First, Nietzsche denies the subject; second, he is critical of anthropomorphizing; and third, forces themselves are not constructed. These objections are internal to Nietzsche’s philosophical program. I will not explore how Nietzsche’s particular kind of object constructivism might stand up against objections to object constructivism in general – though what follows does respond to the most common worry, which is that constructivism seems to presuppose something that is not itself constructed.\footnote{For more discussion see McCormick (1996); Boghossian (2006); Scheffler (2009).}

4.4.1 Nietzsche Denies the Subject

The most obvious objection to the view that Nietzsche is a constructivist about ordinary objects is that he denies the existence of the interpreting subject. He asks, for instance, “Is it necessary to posit the interpreter behind the interpretation? Even that is a fiction, hypothesis” (LN 7[60]).\footnote{See Gardner (2011): 2n1, 3n2 for an extensive list of both published and unpublished passages like this.} In the last chapter, I suggested that for Nietzsche subjects are highly complex bundles of forces in the form of a “social structure” of “drives and affects” (BGE 12, see also 16,
If the subject is a “fiction,” however, humans appear to be a mere multiplicity of such dispositions – there is no distinct “I” or subject. Nietzsche says, “Who interprets? – our affects” (WP 254, see also LN 2[151]). Our affects, not subjects, interpret experience. Nonetheless, this passage seems to presuppose a subject to which affects belong – after all, they are “our” effects. Additionally, Nietzsche sometimes speaks of subjects having a degree of control over their inclinations and aversions in a manner that seems to treat the subject as something both real and distinct from a mere collection of dispositions. In a section entitled “What is Noble,” for example, he explains that it is in part

To have and not to have one’s affects, one’s pro and con; to condescend to them, for a few hours; to seat oneself on them as on a horse, often as on an ass – for one must know how to make use of their stupidity as much as of their fire (BGE 284, see also HH I: P 6; GM III: 12).

This tension is a common interpretive difficulty. But this is neither the time nor the place to attempt to address it in full. I only wish to suggest a way to resolve the tension in a way that shows how Nietzsche’s treatment of the subject is consistent with his conception of ordinary objects.

Nietzsche is known to claim that there is no justification for positing a subject as an entity that causes thoughts but which is itself casually unconditioned (see BGE 16, 17; TI “Errors” 3; WP 484). This conception of the self is his main target when he calls the subject a fiction. Against a long tradition that has adopted this view, which Nietzsche explains as the position that, “‘I’ is the condition, ‘think’ is the predicate and conditioned – thinking is an activity to which thought must supply a subject as cause,” he comments,

212 See Janaway (2009): 56 for a helpful treatment of the relation between Nietzsche’s view of subject-hood and affects. For an interesting discussion of the problems surrounding the issue that will to power appears to deny the existence of subjects while at the same time being fundamentally agent-like see Porter (2006): 550 ff.
one tried with admirable perseverance and cunning to get out of this net – and asked whether the opposite might not be the case: ‘think’ the condition, ‘I’ the conditioned; ‘I’ in that case [the self is] only a synthesis which is made by thinking (BGE 54).

I read the view that the “I” is a “synthesis which is made by thinking” to be a crucial part of Nietzsche’s conception of the self. In a revealing note that reiterates the view of the subject found in the BGE passage he remarks,

What separates me most deeply from the metaphysicians is: I don’t concede that the ‘I’ is what thinks. Instead, I take the I itself to be a construction of thinking, of the same rank as ‘matter’, ‘thing’, ‘substance’, ‘individual’, ‘purpose’, ‘number’” (LN 35[35])

The general point appears to be that the “I” conceived as some distinct entity from thinking which has thoughts does not exist, while the “I” that exists is a “construction” of thought. This indicates that according to Nietzsche the self is real if constructed. Now, he warns us that the construction of the mere concept “I” does not necessarily imply the existence of a genuine self (see, e.g., BGE 16, 17). However, constructing the right sort of “I” – for example, by rejecting the claim that the “I” is an ontologically distinct entity from its thoughts – is a necessary first step toward building a real self. The important point is that Nietzsche suggests an “I” that forms the basis of a real self is “the same rank” as a “thing” in the sense that neither is “given” but must be brought into being (LN 35[35]). He makes this clear in a related note:

The genesis of ‘things’ is wholly the work of the imaginers, thinkers, willers, inventors – the very concept of ‘thing’ as well as all qualities. – Even ‘the subject’ is something created in this way, is a ‘thing’ like all others: a simplification to designate as such the force which posits, invents, thinks, as distinct from all individual positing, inventing, thinking (LN 2[152]).

The self, or “subject,” is “created,” and objects are constructed too.

Nietzsche makes it clear that mere conceptual unification does not create a self. For Nietzsche what must be constructed in order to have a genuine self is an enduring, functionally
coordinated hierarchy of drives and affects, where a select set of stronger drives and affects take command of the lesser. This organization gives a higher sense of unity to the organism. Such functional coordination might happen either by conscious design (see UM III: 12; Z I: “Metamorphoses”; HH I: P; cf. GS 290) or fortuitous circumstance (see EH “Clever” 9; BGE 208; D 109; TI “Raids” 49). According to Nietzsche most humans are passive conduits at the mercy of a variety of disparate and competing forces. This means they do not actually exist in the sense that they are not functional unities. Nietzsche remarks, “When my eyes flee from the now to the past, they always find the same: fragments and limbs and dreadful accidents – but no men” (Z II: “Redemption”). This does not mean, of course, that there are no human beings. He says in the notebooks, “one should not at all assume that many humans are ‘people’ . . . the ‘person’ is a relatively isolated fact” (LN 12[491], see also BGE 200, 207). Most human beings appear to be mere aggregates of drives and affects, while genuine self-hood is an achievement that requires our dispositions to form a unified order: “And this is all my creating and striving,” Nietzsche says, “that I create and carry together into One what is fragment and riddle and dreadful accident” (ibid.). This is how the self is real if constructed.

It is important to see that Nietzsche’s brand of object constructivism does not require interpreting subjects to attain genuine self-hood. Nietzsche’s conception of ordinary objects presupposes only the ability to create concepts and use them to represent target phenomena. For Nietzsche mere human beings have this power because humans are conscious. In arguing that “the development of language and the development of consciousness . . . go hand in hand,” he maintains that “conscious thinking takes place in words, that is, in communication symbols” (GS 354). So, object constructivism is compatible with Nietzsche’s claim that many human beings do not enjoy actual self-hood.
4.4.2 Nietzsche is Critical of Anthropomorphizing

Another objection is that object constructivism involves anthropomorphism, roughly the claim that we interpret the world to have human characteristics. Nietzsche is often thought to be critical of anthropomorphism. For instance, he says

Man’s three ‘inner facts’, the things he believed most firmly – the will, the mind, the I – were projected out of himself: he derived the concept of Being from the concept of the I, and posited the existence of ‘things’ after his own image, after his concept of the I as cause . . . The thing itself, to say it again, the concept of thing: just a reflection of the belief in the I as cause (TI “Errors” 3; see also “Reason” 5; GM I: 13; WP 550).

According to Nietzsche agents often project the belief that they are subjects whose wills have causal efficacy onto the world, which leads them to believe in both Being and ordinary objects. Let us consider Being before turning to objects.

Nietzsche understands Being in the Parmenidean-Platonic sense. Being is an ontology that is ontologically distinct from change by virtue of which change occurs. Nietzsche claims that agents believe in Being because – insofar as “every event [is] an action, every action the result of a will” – they consider the nature of the subject to be wholly apart from its actions, and subsequently “foist” this belief “onto every event” (ibid). Thus, “Being is thought in, foisted in everywhere as cause; only following on from the conception ‘I’ is the concept ‘Being’ derived” (TI “Reason” 5). For Nietzsche, however, there is “no substratum” of the subject that exists apart from action, that is, “there is no ‘being’ behind doing, effecting, becoming; ‘the doer’ is merely a fiction added to the deed – the deed is everything” (GM I: 13). The subject-action model of the subject is erroneous because subjects are their actions. There are still subjects, of course, but there are not subjects ontologically distinct from their actions. Just like the case of

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213 See Richardson (1995: 74ff.) for more discussion of this point. Being refers some form of the true world of being because it is immune to change (see TI “Reason” 1, 2, 5; EH “Books,” BT: 3).
subjects, Nietzsche concludes that Being is erroneous because change is basic to the world (see Chapter 3).

Nietzsche is indeed critical of interpreting the world to have human-like characteristics – but only a certain kind of characteristic, namely, those that do not exist and which motivate us to think the world has certain features it fails to have. Object constructivism is consistent with this attack on anthropomorphism. In the passage above, Nietzsche holds that both Being and objects are the result of the transference of the will of the subject. One conception of ordinary objects Nietzsche seems to think people erroneously assume holds that objects have a nature ontologically independent of change. Nietzsche can criticize this conception of objects while simultaneously embracing the view that objects are constructed. The position that objects have an ontologically independent nature requires objects to have identity conditions that are in principle inaccessible to human beings, which Nietzsche denies (see Chapter 2.3). Hence his criticism of anthropomorphism in the realm of objects is supported by his object constructivism.

The texts show that Nietzsche has a problem with anthropomorphism if it leads people to believe that the world to have characteristics that it lacks. He rails against adopting an “anthropocentric idiosyncrasy as the measure of things,” for instance, only insofar as this leads people “to make absolute something conditioned,” subsequently splitting the world into a “‘true’ world and an ‘apparent’ world” (WP 584). In the most famous passage concerning anthropomorphism, Nietzsche seems to be arguing that none of our human conceptions are suitable interpretations of the world:

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214 He makes this point at the end the passage cited at length above, saying “and even your atom, my dear mechanicians and physicists, how much error, how much rudimentary psychology still remains in your atom! Not to speak of the ‘thing in itself’, the horrendum pudendum [terrible shameful part] of the metaphysicians! The error of confusing the mind as cause with reality! And made the measure of reality! And called God! –
Let us beware. – Let us beware of thinking that the world is a living being. Where would it stretch? What would it feed on? How could it grow and procreate? After all, we know roughly what the organic is; are we then supposed to reinterpret what is inexpressibly derivative, late, rare, accidental, which we perceive only on the crust of the earth, as something essential, common, and eternal, as those people do who call the universe an organism? Let us beware even of believing that the universe is a machine . . . The total character of the world, by contrast, is for all eternity chaos, not in the sense of a lack of necessity but a lack of order, organization, form, beauty, wisdom, and whatever else our aesthetic anthropomorphisms are called . . . Let us beware of attributing to it heartlessness or unreason or their opposites: it is neither perfect, nor noble, nor beautiful, nor does it want to become any of these things; in no way does it strive to imitate man! In no way do our aesthetic and moral judgments apply to it! . . . Let us beware of saying that there are laws in nature. There are only necessities: there is no one who commands, no one who obeys, no one who transgresses . . . Let us beware of thinking that the world eternally creates new things. There are no eternally enduring substances; matter is as much of an error as the god of the Eleatics. But when will we be done with our caution and care? When will all these shadows of god no longer darken us? When will we have completely de-deified nature? When may we begin to naturalize humanity with a pure, newly discovered, newly redeemed nature? (GS 109)

The end of the passage reveals Nietzsche’s target: “shadows of God.” That is, he calls for a “de-deification” of nature, as Cristoph Cox puts it, not a “de-humanization” (1999: 102). Nietzsche warns us not to interpret the world as having characteristics traditionally considered to have been authored by God, such as purpose, order, form, beauty, wisdom, eternal novelty, laws of nature, substance, and so on. Nietzsche does not object to anthropocentric interpretation tout court, but to our failure to naturalize those interpretations.

Nietzsche’s critical attitude toward interpreting the world to have human characteristics is therefore not an objection to the object constructivist account on offer. In fact, in Chapter 6 I argue that Nietzsche’s commitment to object constructivism involves a form of “humanization” of nature which is vital for overcoming nihilistic conceptions of science.215

215 Stack (1994): Ch. 1 also argues that anthropomorphism is central to Nietzsche’s positive project. My account differs from Stack in that he takes Nietzsche to deny truth (see Chapter 1).
4.4.3 Forces are not Constructed

The strongest objection to constructivist accounts of objects like Nietzsche’s is to say there must be an antecedent *something* upon which all construction occurs which is itself not constructed:

If our concepts are cutting lines into some basic worldly dough and thus imbuing it with a structure it would not otherwise possess, doesn’t there have to be some worldly dough for them to get to work on [...] (Boghossian 2006: 35)?

If our descriptions structure features of the world that exist independent of our descriptions, then there are features of the world that exist constitutively independent of our descriptions. So object constructivism is false. The antecedent should be granted, opponents say, because although we may use concepts to describe some things, certainly not all things depend on descriptions to be what they are. As one commentator tersely puts it, “Whether a feature or predicate of our making is *null or not* is not . . . dependent on the saying” (Scheffler 2009: 61). We make predicates, but we are not responsible for making all of them have content. The content of some of our predicates exists constitutively apart from our descriptions. If so, then something has the features it does constitutively independent of our descriptions. So object constructivism is false.

In regards to Nietzsche’s position, the objection is that ordinary objects are composed of bundles of forces that are not themselves constructed. The following chapter develops a full response to this objection, so here I will only make a few remarks. The idea that a predicate is not null, or has some content that exists independent of our descriptions, is *trivial* in relation to answering questions about what objects exist. *That* a predicate is not null says nothing about *what* content a predicate has that makes it not null – and the issue in dispute is what content a predicate has that makes it not null. Moreover, it is *self-defeating* to talk about what content a predicate has that makes it not null (without using mere demonstratives). This would require
some organization of experience, which for Nietzsche affects what objects exist. On his account, nothing is “given” without being “taken” to have some determinate boundaries determined by our representations of the world in experience. Even if we stipulate that astronomical object $a$ is some portion of Nietzsche’s “basic world dough,” whatever forces compose $a$ compose neither a planet nor not a planet absent some framework for including or omitting $a$ in the set of all planets. For Nietzsche construction is constrained by how we are affected – he says “we construe ‘what is’ as what exerts an effect on $us$” – but we organize that information into determinate existents – “the concept ‘really, truly there’ is one we drew out of the ‘mattering-to-us’” (LN 5[19]).

Bundles of forces do not themselves sufficiently constrain which bundles we consider objects.

Finally, return to the reductionist reading, which claims that Nietzsche identifies ordinary objects with intrinsically organized collections of forces. For all practical purposes reductionists are exactly right to think intrinsic unification plays a role in a bundle’s being an object. We encounter bundles that are more organized than others, and these bundles do appear to be objects just “by nature.” Planets, being giant, spherical masses that are easily identifiable amidst vast expanses of space seem to be the perfect example. But the preceding account has tried to show that according to Nietzsche the interpreting subject is an essential condition of bundles being taken to count as certain kinds of objects. Intrinsic organization may provide a helpful guide for us when establishing representational boundaries, but for Nietzsche it is a “fundamental

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216 Cf. James (1981): 111: “Now however fixed these elements of reality may be, we still have a certain freedom in our dealings with them. Take our sensations. That they are is undoubtedly beyond our control; but which we attend to, note, and make emphatic in our conclusions depends on our own interests.”

217 See Chapter 5 for discussion of positive constraints.
prejudice” to think that “it is inherent to the true being of things to be ordered” (LN 40[9]).

Experience suggests there is no way the world is due to some intrinsic structure. In fact, Nietzsche maintains that it is an open question “whether there could not be many other ways of creating [the] ‘apparent’ world” (WP 569). The world in experience may be justifiably constructed in various ways (albeit within constraints, which are yet to be discussed). Thinking otherwise is not only erroneous, but also nihilistic, since it would presuppose a view inconsistent with the nature of reality.

218 Although this is a passage against Kant’s view that a set of necessary a priori categories in all human interpreters ensures that we encounter an objectively ordered world, it extends nicely to reductionism.
CHAPTER 5
SCIENTIFIC CONSTRUCTIVISM

This chapter completes the account (started in Chapter 4) by arguing that Nietzsche is committed to scientific constructivism. My strategy is to suggest Nietzsche embraces object constructivism, since the object constructivist thesis that the identities of all graspable objects are essentially dependent on our descriptions implies the scientific constructivist thesis that all graspable scientific facts are essentially dependent on our descriptions. In the last chapter, I argued that Nietzsche is committed to object constructivism about ordinary objects, or objects composed of bundles of forces. Constructivism about ordinary objects does not entail scientific constructivism, however. Object constructivism makes a claim about all objects, which includes theoretical objects, or bundles of forces. Showing that Nietzsche is committed to scientific constructivism requires an argument that his object constructivism extends to bundles of forces.

I begin this chapter by motivating the interpretive problem just outlined in greater detail. Afterward, I first argue that Nietzsche embraces scientific constructivism because he considers the truth-conditions of our propositions to be constitutively dependent on our descriptive representations. This argument, however, is insufficient. Justifying my claim that Nietzsche endorses scientific constructivism also requires an interpretation of Nietzsche’s view of descriptive representation, particularly scientific representation, which I go on to develop. The bulk of the chapter then suggests Nietzsche’s understanding of scientific representation commits

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219 Any reference to facts in this chapter will be shorthand for scientific facts, which, as I argued in Chapter 4, are those facts delivered by scientific discourse.
him to a constructivist conception of science. I close by discussing what Nietzsche considers to be constraints our construction of objects and facts.

5.1 TOWARD SCIENTIFIC CONSTRUCTIVISM

Nietzsche embraces scientific constructivism, I submit, because he embraces object constructivism. If a fact is just an object’s instantiating a property, and an object o’s identity is essentially dependent on the properties o instantiates, then if o has some property F by virtue of our descriptions, the fact that o has F is by virtue of our descriptions. Does Nietzsche think a fact is just an object’s instantiating a property?

Let us examine Nietzsche’s conception of fact [Tatsache]. Unfortunately, although he regularly mentions facts, he does not often discuss what a fact is.220 Some passages provide useful hints. In HH, for example, he criticizes those who assume that there are “unalterable facts of mankind” by saying “everything has become: there are no eternal facts, just as there are no absolute truths” (I: 2). For Nietzsche a fact is not something that obtains without change over time. Facts appear to change because they depend on interpretations indexed to various needs, values, and interests that undergo development (see, e.g., HH I: 16). In the notes he even remarks, “one and the same milieu may be interpreted and made use of in opposite ways: there are no facts” (LN 2[175]). The context shows that Nietzsche is not denying facts, but that facts obtain as they do independent of our interpretations (see also WP 481, 604; LN 11[113]). Now, it might be the case that Nietzsche believes facts depend on our interpretations because they are obtaining states of affairs that require our interpretations to be intelligible as facts. As Schacht writes, “There are ‘facts’ only in the context of interpretations which endow our experiences

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220 See BGE P, 234, 253; GM I: 9, 11, III: 11; EH “Clever” 3; A 20, 39, 59; GS 99, 355; HH I: 234, 267; TI “Errors” 3; LN 2[131], WP 120, 472, 475, 486, 521, 549, 605.
with whatever ‘meaning’ they have” (1983: 85). Nietzsche appears to support this when he comments, “a meaning must always be projected” before there can be “facts” (WP 556). In that passage, however, he says something stronger:

There are no ‘facts-in-themselves’ [Tatbestand an sich], for a meaning [Sinn] must always be projected into them before they can be ‘facts’ [Tatbestand]. The question ‘what is that?’ is an establishment of meaning [Sinn-Setzung] from some other viewpoint. The ‘essence’ [Essenz], the ‘essential nature’ [Wesenheit], is something perspectival [Perspektivisches] (WP 556).

A fact in itself, or a noumenal fact, is a fact that is in principle inaccessible by any method available to humans. Nietzsche denies that noumenal facts exist because he claims that fact-hood depends on the identities of objects established through meaningful interpretation, not merely that facts require our interpretations to be intelligible as facts. According to Nietzsche we must determine “what” something is, or determine the “essence” of something, in order for there to be facts. Facts are determined by the identities of objects. Hence it is reasonable to maintain that for Nietzsche a fact is just an object’s instantiating a property. So, if Nietzsche is committed to object constructivism, it is likely that he also endorses scientific constructivism.

Does Nietzsche endorse object constructivism? I argued in Chapter 4 that he does about ordinary objects, or those composed of bundles of forces. Many facts are brought into being when ordinary objects are constructed. For example, astronomical objects appear to be in fact planets by virtue of our descriptions. Objects are planets just in case they have properties that satisfy the conditions astronomers have decided constitute being a planet. Pluto, for instance, fails to be a planet because it does not satisfy the conditions under which something counts as a planet. Thus, fixing the representational boundaries of the concept planet is constitutive of

221 The “them” in this sentence sounds strange because it seems to refer to facts in themselves. However, the context reveals that it is best read as a placeholder for whatever it is that we “project” a “meaning” into in order for it to become a fact.
bringing about the fact that there are objects which are planets. The fact that some object is a planet or is not a planet depends on our descriptive contributions. Since on Nietzsche’s account no object composed of bundles of forces has the properties it does constitutively independent of our descriptions, the same argument for planet extends to all objects composed of bundles of forces.

Nonetheless, constructivism about ordinary objects does not establish scientific constructivism. Scientific constructivism ranges over facts about all objects, which include microscopic objects, or bundles of forces, not just ordinary, macroscopic objects. Certainly, Nietzsche thinks there are facts about bundles of forces that compose ordinary objects in addition to there being facts about objects composed of bundles of forces. In order to show that Nietzsche embraces scientific constructivism there must be good reason to believe he thinks we construct macroscopic and microscopic objects.

Initial evidence for the claim that for Nietzsche we construct all objects comes in the passage cited above, where he maintains that fact-hood requires us to determine the identities of objects. In another passage about facts, he says:

Against positivism, which halts at phenomena – ‘There are only facts [es gibt nur Tatsachen]’ – I would say: no, facts are just what there aren’t, there are only interpretations [nein, gerade Tatsachen gibt es nicht, nur Interpretationen]. We cannot determine any fact ‘in itself’ [Faktum ‘an sich’] (LN 7[60], cf. GM III: 24). Nietzsche reiterates that there are no facts in themselves and suggests something must be interpreted to be a fact.\textsuperscript{222} On my reading, interpretations determine the identities of objects, and

\textsuperscript{222} The last sentence of the passage makes it clear that he does not deny the existence of facts \textit{simpliciter}. Elsewhere he asserts that our descriptions can indeed deliver facts: “With this invented and rigid world of concepts and numbers, man gains a means of seizing by signs, as it were, huge quantities of facts” (LN 34[131], cf. TL, HH I: 3, 11). Elsewhere he suggests this includes scientific facts: “All the presuppositions of mechanistic language – matter, atom, pressure and impact, gravity – are not ‘facts-in-themselves’ but interpretations” (LN 14[82], cf. BGE 14).
so if something must be interpreted to be a fact, then there is reason to believe Nietzsche thinks we construct facts.

Unfortunately, these passages fail to establish scientific constructivism on their own. It could be argued Nietzsche’s criticisms only target noumenal facts. If this is the case, then Nietzsche’s view is perfectly consistent with fact objectivism, the thesis that some facts obtain constitutively independent of our descriptive representations. A denial of noumenal facts only requires commitment to the position that all facts are conditionally, but not constitutively, dependent on our actions. Facts are conditionally dependent on our actions if we must grasp facts from some standpoint or other determined by particular values, needs, or interests, while that grasping does not constitute the facts. The passages cited above do not indicate that Nietzsche endorses the stronger, scientific constructivist claim that all facts are constitutively dependent on our actions.

In the remainder of the chapter, I contend that Nietzsche denies noumenal facts and fact objectivism in favor of scientific constructivism. The next section makes a case for thinking Nietzsche’s object constructivism extends to all objects by examining his remarks about what is required for a proposition to have a truth-value.\(^\text{223}\) Whether facts are thought to be some obtaining states of affairs or an object’s instantiating a property, they are typical candidates for what makes propositions true or false.\(^\text{224}\) It will emerge that according to Nietzsche what

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\(^{223}\) In what follows I use ‘proposition’ as a general indicator to mark out bearers of truth-values, whatever they may be (for an account that attributes propositions as the bearers of truth-values to Nietzsche in a more technical sense see Nola 1987: 547). I do have some reservations about using propositions for Nietzsche. Insofar as propositions are regarded as abstract objects that exist independent of the sentences that express them, he does not believe in propositions. Propositions are usually intended to capture the intuition that truths are eternal (see Young 1995: 3), which Nietzsche denies (see HH I: 2).

\(^{224}\) Nietzsche suggests an even stronger claim that some properties of facts are also properties of truths: “there are no eternal facts, just as there are no absolute truths” (HH I: 2, italics mine). The view that facts are typical candidates for what makes propositions true or false was also common in Nietzsche’s historical context. For instance, Kant
constitutes the truth-conditions of our propositions is essentially related to our descriptions. If this is the case, then there is reason to think that for Nietzsche facts are constitutively related to our descriptions as well.

5.2 TRUTH AND OBJECT CONSTRUCTIVISM

Nietzsche’s conception of truth has received a lot of attention in recent decades, and there is no consensus about his position in the literature. Commentators have attributed every common theory of truth available to him – correspondence, coherence, and pragmatist – as well as maintained he has no theory of truth. I will not sort through these discussions in detail. My primary aim is to present key statements about Nietzsche’s understanding of truth that lend support to my claim that he considers what constitutes the truth-conditions of our propositions to be essentially related to our descriptions. Although I will not definitively ascribe any particular theory of truth to Nietzsche – it will emerge that I think the texts contain elements of all three positive positions – my reading suggests that his remarks make better sense within some theories of truth than others. I first examine Nietzsche’s statements about what it is required for a proposition to have a truth-value in relation to the correspondence theory of truth. I then proceed to comment on why his remarks are better understood within the context of a coherence theory of truth, and finally suggest that, whatever his preferred theory of truth, his remarks support a pragmatist explanation of truth.

seemed to hold that a fact is what makes a (true) judgment true – so that any further understanding of what a fact is depends on what sort of things judgments are (by which they can be true).


226 See Cox (1999): 28-29n17, 18 for an extensive list of which views different interpreters claim Nietzsche is committed. Cox puts himself in the “no theory” camp.
5.2.1 Nietzsche and the Correspondence Theory of Truth

The correspondence theory of truth holds that a proposition is true if and only if it corresponds to the way things are, and false if not. This theory makes the ontological assumption that something about the world – typically objects – determine representational success or failure. Ontologies supply objects that determine the truth-conditions of propositions. Objects are often considered determinate with respect to their properties. That is, for every possible property F, an object must either have the property (be F), or not have the property (be not-F). On the correspondence theory, a proposition is true if there exists an appropriate object instantiating a property to which propositions correspond, and false if not.

It is helpful to distinguish two types of correspondence theory based on their ontological commitments. The ontological assumption of the *metaphysical* correspondence theory is that objects have a determinate, completely mind-independent nature. Alternatively, the ontological assumption of what I call the *neo-classical* theory is that objects only have a determinate nature, not that objects are completely mind-independent.

Does Nietzsche accept the correspondence theory of truth? It is well known that he rejects the metaphysical theory since he famously claims that knowledge is essentially related to our perspectives (see GM III: 12). However, some of his remarks appear to embrace the neo-

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227 Most correspondence theories do not subscribe to a three-valued logic, so I will not be considering propositions with no truth-value.

228 Davidson (1969) and Field (1972) are exceptions. They take Tarski’s theory to be giving an account of the core elements of a correspondence theory without reference to entities in the world. It is controversial whether or not the neo-classical correspondence theory of truth is consistent with Tarski’s semantic conception of truth, but it will emerge that Nietzsche’s account is consistent with Tarki’s view that, e.g., ‘Snow is white’ is true if and only if snow is white.

229 Yet writers who argue that Nietzsche conceives the world to be something like an unknowable becoming (or “chaos” or “will to power”) attribute to him a metaphysical correspondence theory of truth. See Danto (1965): 80, 96-97; Grimm (1977): 30; Granier (1995); Wilcox (1982): 132-133; Braver (2007): 142.
classical theory.\footnote{See Schacht (1983): 112-115; Nehamas (1985): 53; Nola (1987): 525-544.} For example, Nietzsche argues that many religious people’s beliefs about causality fail to correspond to features of the world (see, e.g., D 10; BGE 21; A 15). If Nietzsche were to accept the neo-classical theory, however, it would require reinterpreting its ontological assumption. He denies that true propositions correspond to objects \emph{ontologically independent of us}:\footnote{I use this \emph{Nachlaß} passage because Nietzsche’s published remarks on truth that appear to support correspondence theories of truth do not often discuss the ontological commitments behind correspondence (see, e.g., GS 110; BGE 39).}

The will to truth is a \emph{making} fixed [\emph{Fest-machen}], a \emph{making} true and lasting [\emph{ein Wahr-, Dauerhaft-machen}] . . . a reinterpretation into something that \emph{is} [or \emph{has being} – \emph{eine Umdeutung desselben ins Seiende}]. Truth is thus not something out there and must be found out, discovered [\emph{Wahrheit ist somit nicht etwas, das as ware und das aufzufinden, zu entdecken ware}], but something that \emph{must be made} and that provides the name for a process – or rather for a will to overcome, a will that left to itself has no end: inserting truth as a process in infinitum, an \emph{active determining} [\emph{actives Bestimmen}] not a becoming conscious of something that is in itself fixed and determinate [\emph{fest und bestimmt}] (LN 9[91]).

For Nietzsche the activity of establishing truths brings determinate satisfaction conditions for propositions to correspond into existence. For a proposition to be determinately true or false something must be \emph{constructed} – that is, interpreted into “something that \emph{is} [or \emph{has being}]” (LN 9[91]) – and the need to establish truth motivates this construction process.\footnote{See also LN 11[73]: “The ‘being’ of things has been \emph{inserted} by us (for practical, useful, perspectival reasons).” Nietzsche says elsewhere that this process enables our having “invented knowing” (TL).} One might think Nietzsche believes that we must construct the \emph{meanings} of terms. After all, for a proposition to be determinately true or false its terms cannot be meaningless, altering meanings affects truth-conditions, and we clearly create the meanings of our terms. Nietzsche undoubtedly thinks we construct meaning (see, e.g., GM II: 12), but the passage targets the \emph{objects of reference} of propositions. Truth, Nietzsche says, is “an \emph{active determining},” which he contrasts to “becoming conscious of something that is in itself fixed and determinate” (LN 9[91]). It is unlikely that
truth conceived as “an active determining” contrasts with coming to apprehend meanings that exist “fixed and determinate” apart from us. It makes better sense to read the passage as making the claim that we contribute to constructing the objects of reference of propositions. Truth requires objects to be “made,” Nietzsche suggests (ibid). They are not “out there” waiting to be “found out [and] discovered” (ibid). Objects aid us in establishing truth by providing truth-conditions for propositions.

We contribute to constructing truth by providing, as Nietzsche remarks, a “name,” or concept (LN 9[91]). In another note, for instance, he remarks: “‘Truth’ is the will . . . to classify phenomena into definite categories” (WP 517, see also TL). Consider also the following:

The reputation, name, and appearance, the worth, the usual measure and weight of a thing . . . has, through the belief in it and its growth from generation to generation, slowly grown onto and into the thing and has become its very body: what started as appearance in the end nearly always becomes essence and effectively acts as its essence! . . . – But let us also not forget that in the long run it is enough to create new names and valuations and probabilities in order to create new “things” (GS 58)

“This thus and it shall be” – that stands at the beginning: later, often after a long series of generations, it becomes a “thus it is.” Later it’s called “truth”; at first it was a will to see something thus and thus, to name it thus and thus, a saying Yes to a value-creation of one’s own (LN 34[264]).

The first passage introduces Nietzsche’s object constructivism and the second links it to truth. The basic thought is that we play a role in bringing objects into being by fashioning concepts that organize the world in experience in relation to our interests – presumably, I argued in Chapter 4, by grouping collections of properties that constitute the identity conditions of objects. Over time this solidifies determinate referents of our concepts that determine the truth-conditions of

233 Recall that Nietzsche uses ‘name’ and ‘concept’ interchangeably (see Chapter 4).
234 Nietzsche’s use of scare-quotes in relation to the truth predicate often flag the fact that truth is not something that exists constitutively independent of us (see, e.g., WP 515, 517, 552, 616).
propositions. On this view, the truth-conditions of our propositions are constitutively related to us in the sense that our contributions provide the conditions for representational success or failure.

Nietzsche’s position would be unacceptable to many philosophers who typically adopt the neo-classical correspondence theory of truth, such as realists. Realists usually maintain that objects are determinate constitutively independent of our actions. Some Nietzsche commentators mistakenly believe he endorses a correspondence theory that assumes realism. For example, Robert Nola writes that for Nietzsche “correspondence truths” are “found or discovered” (1987: 551), and Maudemarie Clark thinks Nietzsche adopts a “common sense version of the correspondence theory of truth,” according to which true propositions correspond to objects in the world ontologically independent of our representations (1990: 31, 39-40, 45).

It is certainly the case that for Nietzsche truths that correspond to objects of experience may be “found or discovered” within established domains of discourse, but he maintains that correspondence first requires us to “posit and arrange a world that shall be called true by us” (LN 9[97]). Nietzsche rejects the realist position that objects apart from us determine which propositions correspond or fail to correspond.

Nietzsche’s remarks can still be consistent with the neo-classical correspondence theory, but unconventionally so. Additional evidence, however, indicates that Nietzsche most likely denies the neo-classical view. He appears to reject bivalence about truth:

Indeed, what forces us at all to suppose that there is an essential opposition of “true” and “false”? Is it not sufficient to assume degrees of apparentness and, as it were, lighter and darker shadows and shades of appearance – different “values,” to use the language of painters? [Ja, was zwingt uns überhaupt zur Annahme, dass

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The rhetorical tone suggests he thinks it is sufficient to understand truth in what we might call an *approximate* manner. A representation is approximately true to the extent that what it describes is similar to the object described. I examine Nietzsche’s account of approximate truth in detail below, but for now notice that it is not common to think propositions correspond approximately. Nietzsche’s claim that truth and falsehood come in “degrees” and “shades,” not an “essential opposition,” clashes with the neo-classical correspondence theory. On that theory, truth is commonly applied to propositions when taken to succeed in representing things the way they are or are not, *full stop*. The difficulty of understanding how approximate truth is fits within a correspondence framework shows Nietzsche’s account is fundamentally unlike the correspondence theory.

### 5.2.2 Coherence Theory of Truth

Nietzsche’s view that we construct the objects of reference of propositions that have determinate truth-conditions and his denial of bivalence are better situated within the coherence theory of truth than the correspondence view. According to the coherence theory, the truth of a proposition consists in its coherence with some specified set of propositions. Coherence necessarily requires consistency, though it often indicates something stronger, such as mutual explanatory support between propositions. Nietzsche appears to adopt the coherence theory when he remarks, “An isolated judgment is never ‘true’” because “only in the connection and

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237 There is debate over what exactly coherence consists in, but I cannot get into this issue here. For discussion see Rescher (1973); Young (1995).
relation of many judgments is there any surety” (WP 530, cf. GM III: 12; GS 260). The “connection” and “relation” between propositions likely signals mutual explanatory support.\(^{238}\) For example, Nietzsche says science operates with “false magnitudes,” but keeps them “constant” such that “the conclusions of science acquire a complete rigorousness and certainty in their coherence with one another; one can build on them” (HH I: 19). So scientific representations about phenomena such as magnitude are idealizations that have strong explanatory power if they cohere with one another.

The coherence theory differs from the correspondence theory in two ways. Each difference provides reason to think Nietzsche’s account is better understood through the lens of the coherence position. The first (obvious) difference is that for the coherence theory the relation between propositions and their truth-conditions is coherence rather than correspondence. This is important in relation to Nietzsche because the coherence framework allows for a rejection of the principle of bivalence about truth. Now, the candidates for the specified set of propositions for a proposition to cohere are usually (i) the largest set of propositions accepted by our current best theories, (ii) propositions which will be accepted at some ultimate limit of inquiry, or (iii) propositions which would be accepted by an omniscient being. Those who take the specified set to be the largest set of propositions accepted by our current best theories can reject bivalence about truth. In absence of a final theory or omniscient entity, it is not the case that any proposition or its negation must cohere.\(^{239}\) Nothing about a coherent system of currently held beliefs requires denying the possibility that some propositions in the system are neither true nor false. For instance, some propositions may only partially cohere with a set that is mutually explanatory. Since Nietzsche rejects final theories (see, e.g., GS P: 2) and omniscient entities

\(^{238}\) See also Schacht (1983): 67.

\(^{239}\) See also Young (1995); Walker (1989): 32-34.
(see, e.g., GS 108, 125), he would most likely take the specified set of propositions to cohere to be the largest set accepted by the current best theories. The coherence theory of truth thus supports his rejection of bivalence.

The second manner in which the coherence theory of truth differs from the correspondence theory is that the truth conditions of propositions for the coherence theory consist in other propositions rather than objects that are independent of our representations. The coherence theorist holds that a true proposition consists in its coherence with a system of beliefs, not in its relation to some reality which obtains independent of representation. Nonetheless, the coherence theory does not deny that facts, or objects instantiating certain features, make propositions true or false. The coherence theorist can claim that objects are determined by the coherent system of beliefs. The coherentist can even freely say true propositions are those that correspond with objects insofar as the coherent specified set of propositions constitutes those objects. Since Nietzsche denies that we can make sensible judgments about objects independent of representation (see GM III: 12), he must think that the truth of a proposition consists in its coherence with other propositions – and facts remain candidates for what makes propositions true or false.

One might object to Nietzsche’s account by claiming that perceptual representation can be distinguished from descriptive representation. If so, then perceptions might only serve a causal role in relation to propositions. Propositions made true by something perceptual in this causal way are not made true by other propositions, which is inconsistent with the coherentist position that only propositions can make propositions true. But recall for Nietzsche perceptual representation cannot be separated from descriptive representation – conceptual organization

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240 See also Walker (1989): 2ff; Ch. 2.
determinately structures perceptual representation (see Chapter 4.3.1). So, even when a proposition is made true by something perceptual, it is other propositions that make it true.

The coherence theory of truth is also consistent with Nietzsche’s epistemological empiricism, the thesis that knowledge claims require empirical justification. For Nietzsche it could be the case that coherence is that in which truth consists, while sense data is an essential criterion of truth. Sense data is “evidence” in that it is often the test, or mark, of truth. To judge whether something is the case, Nietzsche thinks we must consider the various ways our senses are affected. However, for Nietzsche the ways we are affected are not independent of how we conceive how we are affected. Nietzsche says, “‘Truth’ is the will to be master over the multiplicity of sensations: – to classify phenomena into definite categories” (WP 517). Being affected by the “multiplicity of sensations” provides a criterion of truth, but being “master” over the ways we are affected requires conceptual organization. If Nietzsche were indeed a coherence theorist about truth, he could maintain that truth and falsehood consist in the degree to which the various ways we are affected makes our best system of beliefs more or less coherent.

5.2.3 Pragmatist Theory of Truth

Nietzsche appears to believe truth and falsehood are products of our practical engagement with the world. “An arranged and simplified world,” he writes in the Nachlaß, “is perfectly true for us; that is to say, we live, we are able to live in it: proof of its truth for us – ” (WP 568). Remarks like these provide reason to think Nietzsche is a pragmatist about truth. On the pragmatist theory, a proposition is true if and only if it is useful in some respect. The problem with this characterization is that ‘useful’ is notoriously opaque. Those who discuss Nietzsche
and pragmatism offer little clarification.\textsuperscript{242} They claim usefulness is what, in the way of belief, “works” (Danto 1965: 72), provides “utility” (Cox 1999: 46), ensures “happiness, satisfaction, or practical benefit” (Anderson 2005: 213fn. 9), whatever is “valuable to the human species” (Nehamas 1985: 52), or whatever is “the criterion of survival and, at best, the increase of power of individuals or species” (Braver 2007: 129; see also Nola 1987: 549). These glosses are neither consistent nor very helpful, especially when cited independent of any pragmatist position. To understand Nietzsche’s relation to the pragmatist theory of truth it is best to discuss one such theory.\textsuperscript{243}

In the “The Notion of Truth,” the sixth lecture of \textit{Pragmatism} (1907), William James applies the pragmatic maxim to truth. The pragmatic maxim is a methodological principle used to make our concepts clear. It holds that the content of a concept is identified in the consequences of what accepting it entails. James starts the lecture by agreeing with the common sense position that a proposition is true if and only if it corresponds to reality, and false if not (1981: 91). The problem, he suggests, is that proponents of this position often desire a semantics that renders truth “static” – that is, if a proposition is true, it is presumed true at all times (ibid, 92). James believes this does not capture the role of truth in \textit{inquiry}. In inquiry concepts evolve over time. Thus, it is possible that the truth-conditions of propositions alter as experience grows. James’ lecture therefore aims to clarify the \textit{function} of truth in practice – not define it.

For James a proposition corresponds with reality in practice if it helps inquirers

\textsuperscript{242} The exception is Schacht (1983): Ch. 2.
\textsuperscript{243} I will not rely on Charles Sanders Peirce or John Dewey for the following reasons. Dewey’s work is largely an expansion of James’ basic insights, and Nietzsche would reject Peirce’s definition of truth as “the opinion which is fated to be ultimately agreed to by all who investigate” (Peirce 1982: 97). Peirce makes truth an absolute, fixed limit, ultimately independent of time, person, or circumstance. But according to Nietzsche there are no truths that obtain in the manner assumed by Peirce: “there are no absolute truths” (HH I: 2). Nietzsche also makes the allusive comment, which cold be leveled against Peirce, that “Every metaphysics and physics that knows some \textit{finale}, a final state of some sort . . . permits the question whether it was not illness that inspired the philosopher” (GS P: 2). It then seems best to examine James’ account.
successfully manage experience. That is, true propositions are those that yield satisfactory results when acted upon (ibid, 97). Truths “help us to get into satisfactory relation with other parts of our experience” (ibid, 30). A proposition functions satisfactorily when it can be integrated into the stock of accepted belief, confirmed, and checked: “True ideas are those we can assimilate, validate, corroborate, and verify” (ibid, 92). True propositions tend not to conflict with subsequent experience, that is, they “lead to consistency, stability and flowing human intercourse” (ibid).

James famously asserts a belief is useful because it is true and vice versa (ibid, 93). This seems obviously false, but it is important to see that James is not attempting to provide a definition by synonymy. He holds that beliefs are instrumental and that true beliefs are more advantageous than false ones. The claim that truth is useful and vice versa indicates that truth and usefulness are inseparable in inquiry provided truth is understood from an instrumental conception of belief. True beliefs are useful because they lead to satisfactory results in action.

It is important to notice that James does not believe a proposition is true if a person simply derives satisfaction upon believing it, or feels, as one Nietzsche commentator puts it, “happiness, satisfaction, or practical benefit” (Anderson 2005: 213fn. 9). James rejects the charge that the pragmatist regards “everything true which, if it were true, would be pleasant” (1981: 68). The kind of satisfaction James discusses pertains to the logical consequences of an accepted proposition, not the psychological consequences. Nietzsche agrees with James on this point. He remarks, for example, “A strong faith that makes blessed raises suspicion against what is believed; it does not establish ‘truth’” (GM III: 24).

See also Scheffler (1974): 105.

Cf. GS 344; A 50; BGE 39. There is a significant caveat which demands the kind of attention that would take us outside the scope of this dissertation. James famously maintains that religious beliefs are reasonable in part because
Nietzsche’s remarks on truth agree with James’ pragmatic explanation of truth. For Nietzsche descriptive representations are organizational tools that help render experience “manageable and calculable” (WP 584, see also BGE 192; TL). Employing representations that organize the world into objects makes experience “manageable and calculable” because it establishes the truth-conditions of our propositions – and thus it establishes the possibility of employing true and false evaluations. Nietzsche says, “we can comprehend only a world that we ourselves have made” (WP 495, see also GS 301). Constructing objects of reference of our propositions helps us “arrange . . . a world in which our existence is made possible” (WP 521). The utility associated with constructing objects therefore leads to what James describes as “stability and flowing human intercourse.” Object construction establishes truth, an evaluation that “helps us to get into satisfactory relation with other parts of our experience” (1981: 93, 30). Hence Nietzsche agrees with James’ position that truth is useful for navigating experience.

There are three common objections to thinking Nietzsche is sympathetic with the pragmatist explanation of truth. The first turns on his remark that, “Something might be true while being harmful and dangerous to the highest degree” (BGE 39). If a true proposition is they have real practical benefits for the believer. A well-known view of Nietzsche is that he despises such a position. But things may be more complicated. James countenances the legitimacy of religious beliefs only insofar as they do not conflict with “all the other working truths,” namely, those garnered by the scientific discipline (1981: 133). Personal satisfactions must give way to empirical evidence. Nietzsche’s naturalism, as discussed in Chapter 1, is consistent with this view. Additionally, James attempts to justify religious beliefs because they remain once all the available evidence is taken into consideration. When the evidence is neutral, he thinks we do have the right to allow personal sentiments to influence which beliefs get fixed. Science cannot always decide by itself which beliefs we should have, and more, science may even distort our relation to certain questions, e.g. those concerning meaning and value. It is difficult to determine Nietzsche’s attitude toward this position. He does not give proofs against the existence of God, but rather attacks belief in God because he finds such belief psychologically unhealthy. In this regard, his view seems to be very unlike James’. However, if this is Nietzsche’s position, it does not rule out religious belief in any unqualified sense. There may be constraints that lead him to countenance such belief, and he has also been know to think some Christians should remain faithful because it is what they require, and are not the type to discard religious belief. Also, like James, Nietzsche does not give over all questions to science. Yet Nietzsche’s view of beliefs that lie outside all available empirical evidence – such as synthetic a priori truths – is often critical. In any case, the popular idea that Nietzsche’s position is simply antithetical to James’s view from the start requires close re-examination.
“dangerous to the highest degree,” the objection goes, truth is not always useful. In reply, however, notice that Nietzsche continues by saying that because there are dangerous truths

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).

The claim that truths are “harmful” and “dangerous” does not imply that they fail to succeed in helping us cope with reality – they do so all too well! If truths did not aid us in navigating experience, then for one to “endure” them they would not need to be “thinned down.” Nietzsche hold that some truths need to be “shrouded” or “sweetened” because they might negatively impact some deep seated beliefs about the world – but this is not a negation of my reading that Nietzsche thinks truth is useful.

The second objection derives from Nietzsche’s comment, “A belief, however necessary it may be for the preservation of a species, has nothing to do with truth” (WP 487). Assuming a belief that allows for “the preservation of a species” is useful, this appears to be a rejection of pragmatism about truth. Yet Nietzsche goes on to say that a life-preserving belief “has nothing to do with truth” because (and these are his examples) “we have to believe in time, space, and motion, without feeling compelled to grant them absolute reality” (WP 487). Pragmatic beliefs have “nothing to do with truth” only if truth requires some “absolute reality,” which for Nietzsche is just a completely mind-independent world. So life-preserving beliefs can

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246 See Braver (2007): 130 for a statement of this objection.
247 See also WP 497; LN 34[81], 6[14], 9[38].
248 See Nehamas (1985): 53 for a statement of this objection. Conflicting passages appear only in Nietzsche’s notebooks, and unfortunately there is no conclusive published material to decisively adjudicate the dispute. Nonetheless, I argue that there is a way to reconcile them in a way that retains Nietzsche’s pragmatist leanings.
be true provided that one rejects the metaphysical correspondence theory of truth, which Nietzsche does.\textsuperscript{249}

The final objection comes from Nietzsche’s famous remark that

The falseness of a judgment is for us not necessarily an objection to a judgment . . . The question is to what extent it is life-promoting, life-preserving, species-preserving, perhaps even species-cultivating (BGE 4).

This claim marks a significant difference between Nietzsche and James. Unlike James, Nietzsche does not think true beliefs are necessarily more useful than false ones. Constructing the referents for our propositions also results in constructing the possibility of falsehood. Insofar as life-preserving beliefs may actually be false – and according to Nietzsche we must “recognize untruth as a condition of life” (ibid) – Nietzsche appears to side against a pragmatic treatment of truth.

The primary issue concerns Nietzsche’s understanding of \textit{false} in the passage. He continues:

Without accepting the fictions of logic, without measuring reality against the purely invented world of the unconditional and self-identical, without a constant falsification of the world by means of numbers, man could not live (BGE 4).

The examples indicate that life-preserving beliefs involving \textit{logic and mathematics} are false. Nietzsche’s reasoning is that “Logic (like geometry and arithmetic) . . . applies only to fictitious

\textsuperscript{249} Nietzsche expresses the same thought in other places as well, saying, for instance, “The categories are ‘truths’ only in the sense that they are conditions of life for us: as Euclidean space is a conditional ‘truth’” (WP 515, see also 513, 516; LN 9[38]). Another apparently problematic passage, which reads: “That the mind has become and is still becoming; that among countless ways of inferring and judging, the one now most familiar to us is somehow the most useful to us and has been passed down to us because the individuals who thought that way had better prospects: that this proves nothing about ‘true’ and ‘untrue’, --,” starts by saying, “To be put at the very top: the \textit{instincts}, too, have become; they prove nothing about the super-sensible, not even the animal, not even about the typically human” (LN 34[81]). This reveals Nietzsche’s target, which is the Kantian view that some of our cognitive faculties that allow us to cope with experience are \textit{a priori} and necessary. Our “ways of inferring and judging . . . proves nothing about ‘true’ and ‘untrue’” because our mode of cognition has developed over time and is always contingent in relation to various forms of life. To be “true,” such processes would have to stand in some relation to a realm independent of experience, e.g. the “super-sensible.” Other passages that seems to conflict with Nietzsche’s pragmatist sympathies, e.g. WP 497, LN 6[14], can be read similarly.
entities that we have created” (WP 516, see also HH I: 11, 19; GS 111; BGE 21). Logical and mathematical propositions are false because they fail to refer in a world independent of our contributions. This leaves open the possibility that propositions expressed in life-preserving beliefs can be true if considered within domains containing constructed objects. Hence life-preserving beliefs can remain true in a pragmatic manner, despite the fact that they may also be false.

5.2.4 Summary of Truth and Object Constructivism

I have suggested that Nietzsche’s remarks on truth make better sense when situated within either a coherence or pragmatist theory of truth than a correspondence view. The coherence theory supports Nietzsche’s rejection of bivalence and his view that the truth-conditions of propositions do not consist in mind-independent objects, and the pragmatist explanation of truth supports Nietzsche’s position that truth is essentially tied to concerns about utility. Now, the primary goal of §2 was to argue that Nietzsche thinks we stand in a constitutive relation to truth in order to suggest we also stand in such a relation to facts. For Nietzsche the existence of the objects of our propositions that determine representational success depend essentially on the occurrence of our interpretive activities, whether representational success is measured in correspondence, coherence, or pragmatist terms. Concepts bring objects into being about which propositions can be determinately true or false. On this reading, Nietzsche appears to embrace the position that all objects are constructed. Additionally, if we construct the objects of our propositions that have determinate truth-conditions, and we assume facts are truth-bearers, then it is likely that Nietzsche thinks we construct facts. Thus, Nietzsche’s remarks on truth provide reason to think he embraces a constructivist conception of science. Nonetheless, his
conception of *representation* – specifically his understanding of representation within our cognitive perspectives – needs to be examined in order to make this conclusion strong. The plausibility of Nietzsche’s claim that we establish what constitutes the truth-conditions of our propositions depends on his view of representation.

5.3 SCIENTIFIC REPRESENTATION

Nietzsche’s understanding of scientific representation, I submit, commits him to object constructivism, which then entails scientific constructivism. I begin this section by giving a preliminary account of Nietzsche understanding of representation in scientific domains. Afterward, I maintain that he embraces a particular kind of scientific fictionalism. Last, I explain why Nietzsche’s account of scientific representation commits him to object constructivism. This last part responds to the objection that he embraces object constructivism about ordinary objects and remains committed to object objectivism about theoretical objects.

5.3.1 Scientific Representation and Interpretation

For Nietzsche scientific representation is a relation between agents with particular purposes and some target phenomenon (see Chapter 3.3.2). This can be captured in the form: $S$ uses $X$ to represent $T$ for $P$; where $S$ is some agent(s), $T$ is some target phenomenon, and $P$ is some purpose. At the basic level, according to Nietzsche, $X$ consists in *conceptual representation*.250 “Science,” he says, is “the transformation of nature into concepts for the purpose of mastering nature” (WP 610, cf. HH I: 11; TL). Scientific representation is conceptual. Since Nietzsche holds that scientific representations form the basis of our

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250 This is consistent with both the semantic and the model view of scientific theory.
knowledge claims (see Chapter 1.1; TI “Reason” 3),
and knowledge claims are constituted by
interpretations (see Chapter 2.7; GM III: 12), scientific representation is interpretive. Nietzsche
explains that “the essence [Wesen] of interpreting” consists in such features as “doing violence,
pressing into orderly form, abbreviating, omitting, padding, fabricating, [and] falsifying [auf das
Vergewaltigen, Zurechtschieben, Abkürzen, Weglassen, Ausstopfen, Ausdichten, Umfälschen]”
(GM III: 24). These are world-framing features of interpretation. Each denotes some way
representational boundaries become fixed (see Chapter 2.7). Interpretation also exemplifies an
identity feature. Nietzsche writes that our cognitive “perspectives” consist in “interpreting
forces, through which alone seeing becomes a seeing something” (GM III: 12). The identity
feature of interpretation makes it the case that some portion of the world in experience appears as
some determinate kind of object just in case it is interpreted as that kind of object. The most
reasonable way to combine world-framing and identity features of interpretation is to regard
interpretations as representational tools that identify determinate kinds of objects by framing
some portion of the world in experience.

This combination, I claim, establishes Nietzsche’s commitment to object constructivism.
I argue below that the world-framing and identity features of interpretation make it the case that
there is always a constitutive relation between the identity conditions of objects and our
interpretations. If this is the case, then there is reason to think Nietzsche endorses scientific
constructivism. Scientific representations are interpretive, specifically because they are most
basically conceptual. Concepts identify determinate kinds of objects by framing some portion of
the world in experience (see Chapter 4.3). In what follows, my primary aim is to examine how

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251 Recall, Nietzsche is talking about Wissenshachft, which refers generally to any critical investigative discipline.
252 In GM III: 12 Nietzsche uses eine Sache to refer to objects, which refers very generally to some matter, case, or
topic of discussion.
Nietzsche thinks all objects are constructed by virtue of conceptualization. Before continuing, however, it is crucial to become more acquainted with, and dispel worries about, a troubling feature of Nietzsche’s conception of scientific representation: falsification.

5.3.2 Scientific Representation and Scientific Fictionalism

One will have noticed, perhaps alarmingly, that among the “essential” world-framing features of interpretation Nietzsche lists “falsifying [Umfälschen].” Interpretation necessarily involves, among other things, falsification. Since Nietzsche holds that knowledge claims are constituted by interpretations (see GM III: 12), he appears committed to the prima facie inconsistent position that knowledge claims necessarily involve falsification. Indeed, he often says our cognitive perspectives operate with false representations (see TL; HH I: 11, 16; 19; GS 110, 111, 112, 121; BGE 21, 24, 192; GM I: 13; III: 24; TI “Reason” 2, 5, “Errors” 3). In BGE, for example, he asserts that science delivers a “falsified world” (BGE 24) and “fictions” pervade scientific practice (BGE 192, cf. GS 112, 121). Hence for Nietzsche scientific representations are somehow false – he embraces some form of scientific fictionalism.

Understanding Nietzsche’s conception of scientific representation requires clarifying his scientific fictionalism. Without such clarification his view is immediately inconsistent. The discussion will also help illuminate the function of other “essential” world-framing features of interpretation, such as “abbreviating, omitting, padding,” and so on. This will broaden our understanding Nietzsche’s conception of interpretation, and thus, in turn, his conception of scientific representation. I hope to show that Nietzsche thinks knowledge claims necessarily falsify because he endorses a version of scientific fictionalism according to which inexact
representations, which are false, can also be *accurate*, or true, and this position is not inconsistent.

Before examining Nietzsche’s remarks on falsification it is important to describe some basic distinctions in scientific fictionalism. In general, fictionalism can be about language or ontology. *Linguistic fictionalism* is the thesis that sentences of a particular discourse are best understood as saying something false—though usually useful—rather than literally true. Modal fictionalists, who consider statements containing reference to possible worlds to be false, embrace linguistic fictionalism. Linguistic fictionalists usually retain the target discourse for practical purposes. Indeed, possible worlds terminology serves many functions in philosophy. *Ontological fictionalism* is the thesis that the entities of a particular target discourse do not exist. Error theorists about morality, who argue that phenomena such as moral obligation and moral value fail to exist, endorse ontological fictionalism. Ontological fictionalists typically hold that we are better off rejecting the target discourse, such as, for the error theorist, statements assuming the existence of moral qualities. Although linguistic and ontological fictionalism are regularly defended in tandem\(^{253}\), one can in principle be committed to one without embracing the other.

The distinction between language and ontology provides a basis for distinguishing how scientific representations can be false.\(^{254}\) A *fictive* representation about some entity is false if the entity, although real, is incorrectly described. An example is the ideal gas law. This law idealizes the behavior of real gases as being perfectly elastic spheres that occupy very little space and exhibit no mutual attraction. Fictive representations, which include idealizations,

\(^{253}\) See, e.g., Szabó (2001).

\(^{254}\) The following distinctions are put forward and treated at greater length by Suarez (2009): 3-18.
abstractions, and the like, are generally instances of linguistic fictionalism.\footnote{Those who stress that scientific \textit{models} are fictive, however, such as Ronald Giere, would not typically characterize their view as exemplifying linguistic fictionalism, since models are non-linguistic items. See Giere (2006): 76-78.} A case of ontological fictionalism, by contrast, is a \textit{fictional} representation. A fictional representation about some entity is false because there is no such entity in reality. Models of luminiferous aether (or ether), which were used in the 19th century to describe a medium for the propagation of light, are fictional representations. Commitment to either kind of scientific representation, fictive or fictional, does not require embracing both. In fact, disagreement about how to understand the truth-value of fictive representations leads some to deny that both are necessarily false. Call \textit{wide fictionalism} the thesis that both fictive and fictional representations are false, and \textit{narrow fictionalism} the thesis that only fictional representations are false.\footnote{For accounts of wide fictionalism see Barberousse and Ludwig (2009); Bokulich (2009); Held (2009); Ankeny (2009); Knuuttila (2009). For accounts of narrow fictionalism see Morrison (2009); Winsberg (2009); Teller (2009).} Narrow fictionalists argue that inexact representations can be, in an approximate sense, true. The statement that the earth has a circumference of 40,075 kilometers seems true, for instance, though it is more near 40,075.16.\footnote{Teller (2009) introduces and develops this example at greater length.} Wide fictionalists consider such imprecise representations to be strictly false.

Finally, there are two ways of viewing the defining conditions of fictions in science. The \textit{truth-conditional} account holds that the users of a false representation understand its truth conditions and can assess it as false. Adopting certain \textit{ceteris paribus} generalizations, such as Snell’s law, in place of universal laws, is an illustration of this treatment of fictions.\footnote{See Elgin (2004): 117-118 for a helpful illustration of how Snell’s law is a \textit{ceteris paribus} generalization.} On the \textit{functional} account, the truth-value of a fiction is considered irrelevant, since the nature of a fiction in science is solely its cognitive function in inquiry. Unifying theoretical claims from different scientific domains often requires operating with a functional understanding of fictions.
Narrow fictionalists most often support the truth-conditional account of the defining conditions of fictions in science, which assumes theoretical claims have evaluable truth-values, while wide fictionalists tend to treat the defining conditions of fictions functionally. Wide fictionalism naturally aligns with the view that theoretical claims should not be assessed as either true or false, but as instruments for managing experience. Wide fictionalists point out that to be fictional a representation need not be false, but only applied in a manner that is unconcerned with truth, similar to how a scissors’ cutting ability might best be understood as being better or worse, rather than literally true or false.

These distinctions will help us to understand Nietzsche’s view of fictions in science. His commitment to narrow fictionalism, I claim, rescues his conception of knowledge from being inconsistent. In what way does Nietzsche think all knowledge claims are false? In GM he remarks “the essence of interpreting” consists, in part, in “doing violence, pressing into orderly form, abbreviating, omitting, padding, fabricating,” (GM III: 24). Interpretations target some existing entity – for instance, we could not “press into orderly form” something non-existent – and Nietzsche never discards epistemological discourse. This suggests that he embraces some version of the linguistic fictionalist thesis that all knowledge claims misrepresent their objects. For Nietzsche knowledge claims appear to be fictive representations.

I claim that Nietzsche believes knowledge claims are fictive because they are simplifications. In the notes, he explains that, “The entire apparatus for knowledge is an apparatus for abstraction and simplification [Der ganze Erkenntnis-Apparat ist ein Abstraktions- und Simplifikations-Apparat]” (WP 503, cf. GS 110). Moreover, he equates the process of simplification with falsification.\(^{259}\)

\(^{259}\) Those who have stressed this point include Wilcox (1982): 128-136 and Nehamas (1985): 56-61, 72.
The spirit’s power to appropriate the foreign stands revealed in its inclination to assimilate the new to the old, to simplify [vereinfachen] the manifold . . . – just as it involuntarily emphasizes certain features and lines in what is foreign, in every piece of the “external world,” retouching and falsifying [fälscht] the whole to suit itself (BGE 230, my emphasis; for the association between falsification and simplification see also LN 34 [46], 37[4], 43[1], 7 [54], 14 [93]; WP 503; HH I: 11, 19; GS 110, 354; BGE 4, 21, 24, 39, 192, 229, 230).

The point extends to scientific discourse: “The best science seeks most to keep us in this simplified [vereinfachten] thoroughly artificial, suitably constructed and suitably falsified [gefälschten] world” (BGE 24). It is sensible to think Nietzsche’s reasoning is that something simplified is inexact, and something inexact is not literally true.260

On Nietzsche’s account, all representation within our cognitive perspectives is inexact. This follows from his understanding of the function of representational consciousness. Nietzsche claims that conscious representation operates by a process of simplification because representational consciousness results from the need to communicate (GS 354). To facilitate communication, Nietzsche explains, we employ concepts to group sensed particulars into “generalities” (ibid.). Concepts expedite reference by abstracting from differences and applying general designations to similarities (see TL; BGE 192, 268). For Nietzsche other features of representational consciousness, such as logic, mathematics, and something like the Kantian categories of reason, operate in a similar fashion. Logic and mathematics equalize by reducing sensuous differences into identities (for mathematics see HH I: 11, 19; GS 355; WP 516, 530, 554; for logic see HH I: 18; GS 111; WP 508-522; 554) and the categories subsume diverse sense data under a small set of cognitive forms (see TL; GS 110, 112; TI “Reason,” “Errors”).261

Representational features of consciousness simplify perceptual information into a manageable system in order to navigate complex experience. Hence Nietzsche concludes, “all becoming

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260 This is emphasized in Teller (2008b).
261 For further treatment of this issue see Cox (1999): 81-86.
conscious involves a vast and thorough corruption, falsification, superficialization, and generalization” [*Allem Bewusstwerden eine grosse gründliche Verderbniss, Fälschung, Veroberflächlichung und Generalisation verbunden ist*] (GS 354). Consequentially, conscious representation is always inexact. Nietzsche reiterates in the notes: “everything of which we become conscious is arranged, simplified, schematized, interpreted through and through [*Alles, was uns bewusst wird, ist durch und durch erst zurechtgemacht, vereinfacht, schematisiert, ausgelegt*]” (WP 477). Nietzsche’s understanding of consciousness implies that he considers representation within our cognitive perspectives to be fictive.262

One might ask whether Nietzsche’s account of representational consciousness is compatible with retaining the possibility of knowledge at all. It could be argued that he considers imprecise representations false, *simpliciter*. If so, he would be committed to *wide fictionalism*, which, in this particular case, would imply the skeptical position that our conscious representations cannot be true. There are certainly commentators who believe Nietzsche is committed to such a skeptical position (see Chapter 1.1).263 Alternatively, my claim is that he embraces *narrow fictionalism*, the thesis that inexact representations can be true, and this explains why he thinks knowledge claims falsify.

How does Nietzsche understand truth? In a striking notebook entry he says, “*Truth is the kind of error* without which a particular kind of living creature could not live” (LN 34[253], see also TL; GS 265). Those who contend that Nietzsche rejects truth would likely read this by concentrating on the qualification that truth is sort of a falsification “without which a particular

262 Nietzsche is *not* committed to the view that imprecision is inherent in all conscious representation as a matter of logical or conceptual requirement, but rather that imprecision is the product of the *interaction* between our cognitive capacities and the indefinite complexity of experience. Later I discuss how Nietzsche allows for the existence of exact representations.

263 See, e.g., Babich (1994).
kind of living creature could not live.” It could be the case that ‘truth’ merely picks out a psychological attitude towards one’s beliefs. Although we have a strong psychological need to consider our beliefs true, truth does not exist. 264 Nietzsche could have made this more perspicuous by saying, “The illusion that there is truth is something creatures like us cannot live without.” The problem with this skeptical reading is that Nietzsche straightforwardly asserts that truth exists. He declares, for example, “plain, harsh, ugly, repellent, unchristian, [and] immoral . . . truths do exist” (GM I: 1). In the Nachlass he adds, “The belief that truth does not exist, the nihilist’s belief, is a great stretching of the limbs for someone who, as a warrior of knowledge, is constantly at struggle with so many ugly truths. For the truth is ugly” (LN 11[108]). Nietzsche casts himself as the “warrior of knowledge” against those who deny the existence of truth. 265 Hence the skeptical position cannot be correct.

When Nietzsche says, “truth is a kind of error,” I submit, he means truths are a particular kind of inexact representation. Yet there is an alternative, non-skeptical reading in the literature. One might claim that Nietzsche uses the predicates ‘true’ and ‘false’ to refer to different but compatible domains. R. Lanier Anderson, for example, follows Richard Schacht in arguing that “the paradoxes generated by Nietzsche’s denials of the possibility of truth are to be resolved by distinguishing different senses of ‘true’ and ‘false’.” 266 On Anderson’s interpretation, Nietzsche rejects truth conceived as correspondence to a realm existing independent of our cognitive ordering of experience, but accepts truth as internal to our

264 Thanks to Scott Jenkins for this suggestion.
265 Recall that there are a number of passages where he explicitly talks about the existence of truth, accuracy, or correctness (D 45; GS 107, 354; BGE 39, 154, 186, 202, 220, 253, 259; GM I: 1, I: 4, II: 11; TI “Morality” 1, “Errors” 1, 4, 6, 8, “Improvers” 1, 5; A P, 9, 23, 50, 51; EH P: 3), and calls certain views false or erroneous (GS 29, 37, 99, 109, 126, 138, 326, 335, 345, 355; BGE 11, 12, 16, 17, 19, 22, 38, 48, 53; GM I: 3, 14, II: 11, III: 15, 19, 20; TI “Socrates” 11, “Morality” 5, “Errors” 1-8; A; EH P: 2).
epistemic practices, namely, scientific practice. This reading helps clarify many apparently inconsistent passages in Nietzsche’s work (see, e.g., BGE 229; WP 555, 520). Unfortunately, it cannot explain why Nietzsche thinks truth is a “kind” of falsification. The term he employs is ‘Art’, which could also mean “type” or “form,” and the idea that truth is a kind, type, or form of falsification makes sense only if the predicates ‘true’ and ‘false’ apply within the same domain.

The language Nietzsche uses suggests truth is a particular manner a claim is false – on my view, truth claims are inexact in a certain manner – not that ‘true’ and ‘false’ refer to completely separate realms. Anderson’s position that truth is only possible within our epistemic practices leaves unexplained why Nietzsche seems to consider those truths to be false.

How can Nietzsche hold that truths are a certain kind of inexact representation? Propositions are commonly thought to be true or false, full stop, not both true and false. Recall Nietzsche rejects this view:

Indeed, what forces us at all to suppose that there is an essential opposition of “true” and “false”? Is it not sufficient to assume degrees of apparentness and, as it were, lighter and darker shadows and shades of appearance – different “values,” to use the language of painters? [Ja, was zwingt uns überhaupt zur Annahme, dass es einen wesenhaften Gegensatz von "wahr" und "falsch" gibt? Genügt es nicht, Stufen der Scheinbarkeit anzunehmen und gleichsam hellere und dunklere Schatten und Gesammttöne des Scheins, - verschiedene valeurs, um die Sprache der Maler zu reden?] (BGE 34)

Nietzsche suggests it is sufficient to understand truth in what we might call an approximate manner. A representation is approximately true to the extent that what it describes

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267 In his early work, Anderson argues that truth conceived as correspondence to a realm existing independent of our cognitive ordering of experience refers to an otherworldly realm of Kantian things in themselves (Anderson 1996, 1998, 1999). In later work, he comes to think of this as a phenomenal realm of the unconscious (Anderson 2002, 2005).

268 What follows is indebted to Teller (2008b). Propositions are usually intended to capture the intuition that truths are eternal, which Nietzsche denies HH I: 2).
is similar to the target described.\textsuperscript{269} Do approximately true representations have evaluable truth conditions? It helps to consider assessing a map as an analogy. Maps are representationally successful just in case they are accurate enough to satisfy some specified set of concerns. In the interest of travel, for example, roadmaps display distances and often omit details about climate, population, and so on. Our concerns are crucial for determining the parameters that constitute representational success or failure of maps. Likewise, the application of any approximate representation will be evaluated relative to a particular set of concerns. Thus, approximate representations have evaluable truth conditions which are determinate relative to our interests. Evaluating those conditions will consist in part in delineating which concerns are relevant, and to what degree, in relation to representing some target. A representation is similar to its target only in approximations, just as a map is similar to its target only in certain respects.

This notion of approximate truth is compatible with Nietzsche’s position that representation within our cognitive perspectives is ubiquitously inexact. An inexact representation can also be accurate if considered within the boundaries that determine representational success. For example, take the statement that someone is six feet tall. No one is has a height of six feet precisely, if only because our backbones continuously contract and expand. Moreover, if we idealize to a moment in time, we have to worry about posture, how much hair and dead skin surface to include, and so on. Nonetheless, the inexact statement that someone is six feet tall is an accurate representation if the discrepancy between that measure and

\textsuperscript{269} This understanding of approximate truth is not the one endorsed by many scientific realists, who often employ such a notion to explain the success of theories we now find inadequate (see, e.g., McMullin 1970, 1984; Putnam 1978: 20-21). Realists often think mature scientific theories are approximately true in the sense that they are closer to the truth than older theories. The conception of approximate truth I offer on behalf of Nietzsche does not reference being “closer to the truth,” a notion that many have a hard time explaining and which Nietzsche would reject. For a criticism of the realist’s understanding of approximate truth see Laudan (2002).
one that includes negligible increments does not matter for current concerns. As a result, literally false statements can be approximately true.

From this analysis we can conclude that for Nietzsche knowledge claims falsify because, similar to the narrow fictionalist, he believes representation within our cognitive perspectives is inexact, or false, but that, in an approximate sense, truth is still possible. Nietzsche rejects the wide fictionalist view that all imprecise representations are false. Instead, he thinks we can attain truths about the world while still always working with claims that are inexact. He writes, “‘Truth’: this, according to my way of thinking, does not necessarily denote the antithesis of error, but in the most fundamental cases only the posture of various errors in relation to one another” (WP 535, see also 520; HH I: 16; GS 265). Remarks such as these only make good sense on the reading that Nietzsche endorses narrow fictionalism – a commitment that saves his epistemology from immediate inconsistency.

Someone who wants to defend the view that Nietzsche is a wide fictionalist may respond by claiming that for Nietzsche the defining conditions of fictions in science must be functional, rather than truth-conditional. On the truth-conditional account, the users of a false representation understand its truth conditions and can assess it as true or false; on the functional account, a fiction’s function is all that matters in inquiry. One could argue that Nietzsche is compelled to embrace a functional understanding of the defining condition of fictions because evaluating the truth conditions of an inexact representation as false requires users to be acquainted with the relevant exact representation. But, the reply continues, Nietzsche believes exact representations are unintelligible. The conditions that facilitate conscious representation render them impossible. Therefore, fictions can be understood only in regards to their cognitive function, not their truth. “Valuations must stand in some kind of relation to the conditions of existence,”
Nietzsche says, “but by no means [do they stand in the relation to] that of being true, or exact” (LN 34[247], my gloss in brackets). If Nietzsche treats the defining conditions of fictions functionally, then it would be strong ground to believe he is a wide fictionalist, since that approach is concomitant with wide fictionalism.

Nietzsche would most likely reject the premise that a truth-conditional treatment of approximate representations requires acquaintance with non-approximate representations. There are two conditions that must be met for one knowingly to use an inexact representation as a fiction. Recall that for Nietzsche “there is only a perspective seeing, only a perspective ‘knowing’” (GM III: 12). Nietzsche denies that we can represent a world fully independent of our representations. Representations can only be compared to other representations – whether perceptual or descriptive – not some unrepresented world. One consequence is that on Nietzsche’s account representations can be exact and inexact only in relation to other representations. He can therefore say exact representations are possible while remaining committed to the position that representation is ubiquitously inexact if exactness is not determined by precisely specified objects independent of conscious representation but by other representations. To use an inexact representation as a fiction, then, one must first recognize that there are no exact representations only in the sense that there are no representations of precisely specified objects independent of our representations of them as such.\(^{270}\) The second condition that must be met for one to use an inexact representation as a fiction is suggested by the fact that on an approximate view of truth our interests are essential for supplying the constraints for

\(^{270}\) Nietzsche’s account differs from Teller’s, whose work I drew from earlier, in that Teller employs the idea of completely determinate or perfectly precise representation without qualification. For example, he talks about someone’s “true” height in opposition to a “false precise statement” (Teller 2008b). Although some passages in Nietzsche suggest he endorses the view that a representation of something may be “complete” when all perspectives are taken into consideration (GM III:12, cf. WP 556), others clearly deny that this is a possibility (e.g. GS 374).
assessing whether a representation is accurate. One must recognize that representations may be otherwise – perhaps some more precise than others – since they are indexed to a set of concerns not considered relevant in relation to some problem. To illustrate, astronomers who measure hydrostatic equilibrium, that is, the nearly round shape of astronomical objects, abstract away from the uneven surface features of such objects, while those interested in topography work to detail such attributes. Representations are exact and inexact only in relation to other representations indexed to differently specified sets of concerns. Affirming these two conditions would allow Nietzsche to reject the functional account of the defining conditions of fictions.

Nietzsche’s commitment to narrow fictionalism illuminates his understanding of representation in scientific discourse. For Nietzsche the interpretive nature of scientific representations implies they will be simultaneously true and false. Representations falsify by simplifying some portion of the world in experience in relation to some set of interests. It is easy to see that the other world-framing features of interpretation, such as “pressing into orderly form, abbreviating, omitting, padding, fabricating” (GM III: 24), operate similarly. Each feature fixes representational boundaries by simplifying some configuration of the world in experience relative to our concerns.

Now that we have a general understanding of the function of world-framing, and we have dispelled the worry that Nietzsche’s epistemology is inconsistent from the start, it is time to examine my claim that the world-framing features of interpretation play an essential role in Nietzsche’s object constructivism.
5.4 SCIENTIFIC CONSTRUCTIVISM

Above I suggested that the world-framing and identity features of interpretation make it the case that scientific representations identify objects by framing some portion of the world in experience. It is important to note that Nietzsche thinks experience shows the world to be indefinitely complex. He regularly speaks of “the whole marvelous uncertainty and ambiguity of existence” (GS 2, see also 109, 373; BGE 34; TI “Raids” 7; WP 134, 480, 481, 515). Hence for Nietzsche scientific representations must identify objects by framing some portion of the indefinitely complex world in experience. What follows is an argument for why this view of scientific representation entails that the objects of scientific discourse are constructed, including microscopic objects.

Nietzsche believes scientific representations are interpretive. The identity feature of Nietzsche’s conception of interpretation makes it the case that a portion of the world in experience is some determinate kind of object just in case it is interpreted as that kind of object. There are no objects with determinate identities independent of interpretation. Interpretations are able to render a portion of the indefinitely complex world some determinate kind of object because they consist in certain world-framing features, such as falsification, which simplify a portion of the world in relation to our interests. World-framing features of interpretation make it the case that a portion of the indefinitely complex world is some determinate kind of object by fixing the representational boundaries of that kind of object in relation to our concerns.

Nietzsche’s account of scientific representation suggests that the identity conditions of the objects of scientific discourse are constitutively dependent on our interpretations. This includes the identity conditions of microscopic objects. If Nietzsche is committed to object constructivism about microscopic objects, as well as ordinary, macroscopic objects, then he
embraces object constructivism. Thus, assuming a fact is just an object’s instantiating a property, and an object’s identity is essentially dependent on the properties it instantiates, Nietzsche also endorses the scientific constructivist thesis that all scientific facts that are graspable in principle are essentially dependent on our descriptions.

There are two issues to examine concerning the claim that Nietzsche’s conception of scientific representation commits him to scientific constructivism. How does his account of scientific representation apply to ordinary objects of scientific discourse, such as planets, and how does it apply to theoretical objects, such as bundles of forces? Consider the former first. For Nietzsche astronomers represent some portions of the experienced world as planets by fashioning the concept *planet* such that determinately being a planet requires satisfying the conditions we find relevant to *planet*. The representational boundaries of *planet* are fixed to include certain conditions and omit others among an indefinite number of possible conditions. Those boundaries determine the conditions for the application of the property of being a planet to certain objects. Since astronomers fix the conditions that determine the correct application of *planet*, the identities of that objects that are (and are not) planets are essentially dependent on our activities. On Nietzsche’s account, when scientists describe the world they establish facts about which objects are planets. A similar argument can be made for all astronomical objects, and so on, for any macroscopic object of scientific discourse.²⁷¹

One might object that while we contribute to establishing which conditions are those that characterize planets, the facts that constitute those conditions are perfectly determinate apart from our interpretations. For instance, the fact that planets are *round* appears to exist independent of our actions. But consider the roundness of planets in more detail. A defining

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²⁷¹ This argument is perfectly consistent with my reading of Nietzsche’s object constructivism about ordinary objects discussed in Chapter 4.
physical characteristic of planets is that they are rounded into an ellipsoidal shape due to a balance between the forces of their own gravity over the electromagnetic forces binding their physical structure.\(^\text{272}\) The balance is called *hydrostatic equilibrium*. Hydrostatic equilibrium is currently one of three main conditions that must be met for an astronomical object to be a planet. It is also the current distinguishing criterion between dwarf planets and other Small Solar System Bodies, such as asteroids. Terrestrial planets, which are composed mainly of rock or other solid matter, as well as gas giants, which are not primarily solid, exhibit hydrostatic equilibrium. No planet, however, is in a perfect state of equilibrium. This is especially true of terrestrial planets, which have rough, irregular surface features. Nonetheless, astronomers consider a planet’s uneven surface features negligible when calculating hydrostatic equilibrium, which is calculated by using variables that approximate the relevance of those features.

Do planets exhibit hydrostatic equilibrium constitutively independent of our scientific descriptions? We identify planets in part as astronomical objects that exhibit hydrostatic equilibrium. We do so by simplifying surface irregularities of those objects, and there is an indefinite number of features one must choose to include or omit when operationalizing the variables that measure surfaces. It is required that we make decisions about which material, and how much, to incorporate when operationalizing approximate variables. We represent astronomical objects in states of equilibrium *only* in relation to these approximated values. Such objects are identified as exhibiting hydrostatic equilibrium only insofar as we adopt an appropriate representational boundary of *hydrostatic equilibrium* in relation to our concerns. The boundaries we establish form the application conditions of the property of hydrostatic equilibrium, and so the identities of objects in states of hydrostatic equilibrium are dependent on

\(^{272}\) I am *not* talking about Nietzsche’s conception of force here, but rather only force in general.
our interpretations. Planets are astronomical objects that have the property of being round by virtue of our scientific representations.

Perhaps other facts that constitute the conditions that characterize planets exist apart from our interpretations. For instance, the fact that planets are in part astronomical objects that travel around the Sun clearly seems to exist independent of our actions. But this fact requires an explication of *astronomical object, round* and *star* (specifically, the *star at the center of our Solar System*). I have already suggested how the properties of being round and being an astronomical object are essentially dependent on scientific representations. And identifying stars, especially certain kinds of stars, such as the Sun, requires picking out only some set of objects with particular identity conditions among an indefinite possible number of celestial phenomena. The fact that some astronomical objects travel around the Sun does not exist constitutively independent of our interpretations because identifying the objects that constitute that fact depends essentially on our representational activities.

It will not do to reply that any other kind term attaches to objects of scientific inquiry that have determinate identity conditions apart from our descriptions. For Nietzsche scientific representations identify objects by framing targets in some way and facts are constructed accordingly. Because facts depend essentially on our activities, which could be otherwise, Nietzsche contends that “there are no eternal facts” (HH I: 2). Due to “the fluidity of all concepts, types, and kinds,” which he asserts is a “doctrine that I hold to be true” (UM II: 9), facts need not have obtained in the way they currently do obtain. They are constituted by

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273 Some philosophers of science think this position has been substantiated by the development of science. Take the history of *mass*, for example. Newtonians thought mass was completely determinate. In special relativity, however, it is divided into rest and relativistic mass. In theories of relativity there is no sharp distinction between mass and energy and gravitational mass/energy fails to be a localizable quantity. Quantum theories further complicate matters in circumstances where mass functions as a renormalization parameter. One might reasonably think ‘mass’ has never attached to some determinate quantity apart from our theoretical concerns.
interpretive activities in accordance certain interests, needs, and values that could have been otherwise.

The biggest obstacle to establishing the claim that Nietzsche is committed to object constructivism is that he appears to think there is an unconstructed realm of forces upon which construction occurs which is itself not constructed. Does Nietzsche believe we play an essential role in constructing objects at the basic level of reality? Is the fact that forces are directed, for instance, dependent on our actions?

In order to reply it is important briefly to explain some basic principles of classical mechanics. Classical mechanics is a force-based theory of physics that was widely endorsed in Nietzsche’s historical context. Although Nietzsche certainly does not accept all of the principles of classical mechanics, he does hold that the world is fundamentally constituted by forces. Representations of force are often articulated in mathematical formulas. Newton effectively understood force as mass times acceleration:

\[ F = ma = m \frac{d^2 x}{dt^2} \]

The force acting on a body, then, is equal to its mass times the second derivative of its position with respect to time. From this law alone – or even all three laws of classical mechanics taken together – not much follows. So, if the laws of motion by themselves are taken as axioms, the axiomatic system would be relatively uninteresting. It is instead of much interest to examine different formulations of the form of the force function. With respect to a linear restoring force, for example, the force on a particle is proportional to the negative displacement of the particle from its rest position. The second law for this is (where \( k \) is the constant of proportionality):

\[ F = ma = m \frac{d^2 x}{dt^2} = -kx \]
This form of the formulation allows one to represent harmonic motion. Further forms the force function can take include Hooke’s Law, the simple pendulum, the Hamiltonian formulation, and the damped linear oscillator. For our purposes here, we need not go over the details of these formulas, but simply note one must account for two things when applying them to target phenomena. One must first interpret mathematical symbols to instantiate some concept, or some kind of abstract object, such as position, momentum, or mass, when applying formulas. One must also identify mathematical symbols with some feature of a specific object, such as the position of the moon, when applying formulas. Ronald Giere, who is responsible for making these problems explicit, calls the former requirement the problem of *interpretation* and the latter the problem of *identification* (1988: 74-76; 2006: 62). To illustrate, take \( F = -kx \). We may interpret \( x \) as the displacement of a particle from its rest position, and in applying the formula to the study of a particular mass on a spring, we identify \( x \) as the displacement of a particular mass from its equilibrium position.

The requirements of interpretation and identification are not unique to mathematical representation. They occur in any systematic attempt to use language. Nietzsche clearly appreciates that these requirements – whatever we call them – must be met in order to apply representations to target phenomena (see TL; HH I: 11, 19; GS 111, 121; 354; BGE 192, 268; WP 506, 561, 558). His terminology, as well as the meanings of his terms, is also similar to Giere’s. For Nietzsche interpretations are representational devices that identify the objects as some determinate kind of thing or other, which establishes which particulars are of that kind. Interpretations therefore give Nietzsche a way of solving the problems Giere flags. Regarding the case in question, namely, representing and applying mathematical formulas to force, it is crucial to see that Nietzsche seems to think that solving the problems of interpretation and
identification is “a means and measure for us to create reality” (WP 516, see also HH I: 11, 19; GS 111, 121; BGE 4, 21; LN 9[97]). The reason he believes we “create reality” in mathematical discourse – as well as logical discourse, since Nietzsche does not separate them – appears to be this. For the symbols of mathematics and logic to mean anything, or be applicable, there must be domains of objects to which they refer, normally called universes of discourse (see WP 516; HH I: 11, 19; GS 111). Universes of discourse come into being by virtue of some conceptual apparatus, ordinarily called semantics, which we construct. Therefore, for the symbols of mathematical and logical discourse to mean anything we must construct objects. Nietzsche calls mathematical and logical objects “fabricated beings” (HH I: 19).

Semantics seems to provide both an interpretation and identification of mathematical and logical symbols. We construct a domain to tell us which kinds of things symbols represent (e.g. within domain $D = \{1, 2, 3, \ldots\}$, say $F: \{2, 4, 6, \ldots\}$ and $H: \langle x, y \rangle / x, y \in D$ and $x > y$) and which particular kinds of things symbols represent (e.g. in $D$ say $a: 1$ and $b: 2$). Meeting these requirements allows us to meaningfully apply symbols, such as, for instance, determining the truth-values of sentences $Haa$ (false) and $Fb \& Hba$ (true). Nietzsche seems to believe that when we interpret and identify mathematical and logical syntax we are effectively “creating reality.”

In a crucial passage from the later notes, Nietzsche suggests the type of construction involved in applying formulas to the world also applies to representing events as will to power:

The mathematical physicists have no use for lump atoms in their science; consequently they construct for themselves a world of force-points which can be reckoned with. Men and all organic creatures have done more or less the same thing: they have arranged, thought, devised the world to fit, until they could make use of it, until it could be “reckoned” with (LN 40[36] [1885]).

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274 In the previous chapter, I explained that one reason Nietzsche thinks this way is that our activities make it the case that objects within mathematical and logical domains instantiate certain properties. The following gives the general reasoning behind this view. Cf. Hales and Welshon (2000): 42-44.
Agents “construct for themselves a world of force-points,” or a world conceived as will to power, in order to avoid problems inherent in material atomistic systems, such as Newtonian physics. Nietzsche offers will to power as a novel way to represent reality, similar to the way in which Boscovich constructed a complex, all-encompassing mathematical force-curve that he claimed could successfully represent a point-atomistic universe. I have argued that what Nietzsche seems to believe physicists are starting to “construct” is a model that attempts to understand all phenomena most basically as manifestations of interacting forces, or will to power. This model allows agents to attempt to show that all events have the form <event $\alpha \rightarrow$ energy packet $\epsilon \rightarrow$ event $\beta$>, where $\alpha$ and $\beta$ are collective orientations of forces, and $\epsilon$ is a directed energy transfer between relata $\alpha$ and $\beta$ due to the forceful influence of $\alpha$ onto $\beta$. Nietzsche believes his dynamic model of will to power will eventually trump the static Newtonian one.

The passage quoted above appears to claim that the will to power model has some determinate structure only in relation to our contributions. Nietzsche maintains that by “constructing” a “world of force-points” physicists have “arranged” and “devised the world to fit.” It appears the world as will to power itself – the “world of force-points” – has somehow been “arranged,” “devised,” or “constructed.” Our constructive activity, Nietzsche proclaims, enables us to “make use of [the world].” The important suggestion here, which I return to later, is that we cannot meaningfully represent, or as Nietzsche claims “‘reckon’ with,” anything that exists as it does apart from our activities. For science to represent the world in a meaningful manner it must render it determinate in some way – even at the fundamental level of reality.
What does it mean to render the will to power model of the world determinate? It is reasonable to think that for Nietzsche this is a consequence of the requirement of having to solve the problems of interpretation and identification when applying formulas of force to targets. In the passage above, Nietzsche is explicitly concerned with the constructive activities of “mathematical physicists.” Elsewhere he remarks, “our knowledge has become scientific to the degree that it can apply number and measure” (LN 14[105]). He qualifies this idea in GS:

Let us introduce the subtlety and rigor of mathematics into all science to the extent to which that is at all possible; not in the belief that we will come to know things this way, but in order to ascertain our human relation to things (246).

Insofar as it is possible, our sciences should be informed by mathematics, but because Nietzsche believes applying mathematics to target phenomena requires some human contribution, we should not think that our mathematically-informed sciences reveal the way the world is apart from human intervention. If Nietzsche indeed thinks that solving the problems of interpretation and identification contributes to our “creating reality,” then for him we might render the will to power model determinate by interpreting and identifying the symbols within that model ($\langle \alpha \rightarrow \epsilon \rightarrow \beta \rangle$).

The main interpretive problem with this suggestion is that Nietzsche never formulates his conception of force quantitatively. He does not provide a mathematical formula for the application will to power to target phenomena. It is clear that he does not accept Boscovich’s complex law of force, most likely because Boscovichian force-points are homogenous rather than perspectival, and Newton’s formulation is not available to him because it defines forces in terms of material substance. Nietzsche only suggests scientists construct the will to power model based on the assumptions that forces are real, fundamental, and ungrounded, and on the principle that they are directed from some perspective toward some target outcome to increase influence.
Despite this interpretive difficulty, Nietzsche’s recognition that the problems of interpretation and identification occur in any attempt to apply representation to target phenomena can help us understand why he thinks we render the will to power model determinate without having to invoke a particular mathematical formula. The application of the will to power model to various observational targets first requires interpreting \(\alpha\) and \(\beta\) as pertaining to some kind of event. A conceptual apparatus must provide an interpretation of \(\alpha\) and \(\beta\) such that these symbols have meaningful content as some kinds of collective orientations of forces. This guides us from symbols to objects in a domain by providing information about which objects, with which sorts of boundary conditions, symbols represent. This then helps to identify which specific events out of a plurality are \(\alpha\) and \(\beta\). Semantics must identify exactly which particular collection of forces within in domain our kind terms denote. Applying an interpretation of \(\alpha\) and \(\beta\) requires identifying them with specific sets of forces. Only by interpreting and identifying \(\alpha\) and \(\beta\) we can understand some event as an event of will to power. Nietzsche’s view that we are responsible for rendering the will to power model determinate likely means our judgments delimit the relevant kind and particular domains of \(\alpha\) and \(\beta\). On this reading, then, the identity conditions of collections of forces are essentially dependent on our activities. This conclusion is implied in Nietzsche’s remark that, “There is no event in itself. What happens is a group of phenomena selected and synthesized by an interpreting being” (LN 1[115]).\(^{275}\) An event in itself is an event that has identity conditions constitutively independent of us. There are no such events because the identity conditions of events are constitutively dependent on our interpretations, which include events at the microscopic level of reality.

\(^{275}\) Recall, Nietzsche employs the Kantian phrase “synthesis” to indicate conceptual identification (see Chapter 4).
A consequence of Nietzsche’s account is that the fact that forces exhibit directedness appears to depend essentially on our actions. Forces exhibit directedness because they are actively oriented from a perspective towards some target outcome in an attempt to increase influence. Neither the kind of perspective from which forces are oriented nor the particular extent of their influence are facts that can be known prior to interpretation and identification. For Nietzsche “an artificial distinction is made in respect of events between that which acts and that toward which the act is directed” (WP 521). The conditions we delimit are “artificial” in the sense that they are not in the world apart of our interventions (cf. GS 112). We establish the representational boundaries of the concepts that define directedness – perspective and influence – and those boundaries form the application conditions of the property of being directed with respect to various targets. The identity conditions of forces themselves are essentially dependent on our activities.276

Let us make a few summary observations about this section. I have suggested that for Nietzsche we play an essential role in constructing microscopic objects, not just macroscopic objects. Although the following overstates his case, Nietzsche remarks: “Ultimately, man finds in things nothing but what he himself has imported into them: the finding is called science” (WP 606). “The best science,” he explains elsewhere, delivers a world that is “suitably constructed” (BGE 24, my emphasis). My claim throughout this dissertation has been that to understand

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276 One cannot reply that this account does not address the issue of whether or not singular forces, along with their properties, are constructed because for Nietzsche forces do not exist individually. One might respond by saying the account is problematic because we are unable to apprehend forces by the senses. This difficulty is not unique to Nietzsche, but applies also to Newtonian forces and Boscovichian force-points. Nietzsche suggests that he takes talk of unobservable objects in scientific practice such as forces to be meaningful. He praises Copernicus and Boscovich, for instance, for being the “greatest and most successful opponents of visual evidence so far” (BGE 12). It seems to me that Nietzsche, like many modern scientific realists, makes the claims about forces he does because he thinks they will be born out by empirical research (see Chapter 3).
Nietzsche’s conception of science one must read this passage quite literally – that for Nietzsche our representations construct the world in experience.

What about the objection that there must be *something* upon which construction occurs which is itself not constructed? Insofar as what it is that allows construction to take place is not in principle inaccessible to human beings, Nietzsche can remain committed to object constructivism and concede the objection. It does not follow from the fact that there must be something upon which construction occurs that whatever it is has identity conditions constitutively apart from our activities. For Nietzsche identity conditions come into being by virtue of our descriptions. With respect to whatever is unconstructed, one can say, at most, “*something* is completely apart from our descriptions,” or offer the demonstrative “*that* is completely apart from our descriptions,” which says nothing about what objects there are – unless, implausibly, *being*, or *existence*, have determinate identity conditions. On Nietzsche’s account, employing concepts to the experienced world that contain informative content (concepts that are not mere demonstratives) introduces conditions of identity, and so objects. Nothing we can meaningfully represent, or as Nietzsche claims, “reckon with,” has identity conditions wholly apart from our activities (LN 40[36]). In order to “make use” of the world we must construct objects (ibid). Thus, the claim that constructing objects is only possible given *something* unconstructed is compatible with the object constructivist thesis that all *objects* we ever come to grasp are constructed.

5.5 CONSTRAINTS ON CONSTRUCTION

It is important to notice that it does not follow from the fact that there is something upon which construction occurs that whatever it is constrains construction in any particular or unique
manner. Nevertheless, for Nietzsche object construction is limited by a certain set of constraints. The limitations he endorses allow his account to avoid the subjectivist position that object construction is dependent on the whims of particular subjects, as well as the facile relativist view that any way of constructing is epistemically as good as any other.\textsuperscript{277} For Nietzsche construction within the sciences is primarily constrained by information from sensations – although the sensory information we cognize is always already determinately organized by our concepts and valuations (see Chapter 4.3.2). Nietzsche suggests sensory information constrains construction when he says, “all evidence of truth comes only from the senses” (BGE 134) and “we possess science nowadays precisely to the extent that we decided to accept the evidence of the senses” (TI “Reason” 3). Input from sensations is not subjective and it should not be ignored when arranging experience in some way rather than another. What we take to exist for Nietzsche is what affects us – “we construe ‘what is’ as what exerts an effect on \textit{us}” (LN 5[19]) – though sensations do not constrain organization in any particular or unique manner. Nietzsche thinks we arrange what affects us based on our purposes: “the concept ‘really, truly there’ is one we drew out of the ‘mattering-to-us’” (ibid). Nietzsche is close to William James here, who says, “Now however fixed these elements of reality may be, we still have a certain freedom in our dealings with them. Take our sensations. That they are is undoubtedly beyond our control; but which we attend to, note, and make emphatic in our conclusions depends on our own interests” (1981: 111). What we “attend to” for Nietzsche and James ultimately influences what objects there are. This implies neither subjectivism nor facile relativism.

For Nietzsche other constraints guide acceptable inquiry, such as the current body of accepted beliefs (GS 57, 335; BGE 12, 22; LN 2[108]), the epistemic values of conservatism (GS

\textsuperscript{277} See Leiter (1994): 352n2 for a bibliography of those who interpret Nietzsche as facile relativists.
110, 121), consistency (BGE 13; WP 530), scope (BGE 36), simplicity (HAH 11; 19; BGE 192; WP 503, 515-517, 521), a certain kind of utility (GS 110; BGE 4, 21, WP 493 ff.), and mathematical and logical presuppositions such as self-identity and equivalence (HAH 11, 19; GS 111, 355; BGE 4, 21; WP 516, 530, 554). These constraints place limits on object and fact construction and ensure objectivity, though not in any sense that presupposes a mind-independent world. Nietzsche says “objectivity” [Objektivität] understood as “contemplation without interest” [interesselose Anchanuung] is a “nonsensical absurdity” [Unbegriff und Widersinn] (GM III: 12, see also A 20; BGE 80, 207; EH “Books” 5; GS P: 3). A conception of objectivity that assumes there is a way things are independent of our interests is unintelligible.278 For Nietzsche we cannot make sensible judgments about reality independent of our representations because reality is disclosed through our representational frameworks. The “knowledge-seeker,” Nietzsche says, is “thus in no way an observer, outside, indifferent, secure, objective” (GS 351). We can assess the objectivity of our representations only in relation to other representations, whether perceptual or descriptive. Hence Nietzsche thinks objectivity consists in part in the wealth of information generated by a multiplicity of representations. He proposes that “the more affects we allow to speak about a matter, the more eyes, different eyes, we know how to bring to bear on one and the same matter, that much more complete will our ‘concept’ of this matter, our ‘objectivity’ be [je mehr Augen, verschiedene Augen wir uns für dieselbe Sache einzusetzen wissen, um so vollständiger wird unser “Begriff,, dieser Sache, unsre

278 See Janaway (2007): Ch. 11 for an argument about how this is a response to Schopenhauer, not, as I’ve generally construed it, thinkers like Kant. For the most part, Janaway’s account is compelling, but he heavily downplays the relevance of Kant in GM III: 12. However, Nietzsche not only uses Kantian phrases when identifying the views he is attacking (e.g. “pure reason” [reine Vernunft]), he also has an entire paragraph on Kant in the passage about which Janaway offers no comment!
“Objektivität, sein” (ibid., translation slightly modified). The more representations we bring to bear on some matter, the better will be our understanding of that phenomena. Nonetheless, according to Nietzsche there is something more to objectivity than just a collection of representations. Objectivity is also “the capacity to have one’s pro and contra under control and to engage and disengage them, so that one knows how to employ a variety of perspectives and affective interpretations in the service of knowledge [das Vermögen, sein Für und Wider in der Gewalt zu haben und aus- und einzuängen: so dass man sich gerade die Verschiedenheit der Perspektiven und der Affekt-Interpretationen für die Erkenntniss nutzbar zu machen weiss]” (ibid, cf. TI “Germans” 6). To be objective one must acquire the ability to employ and shift between a variety of representations, both for and against particular matters, when seeking knowledge. As Schacht aptly remarks, this learned “art of interpretation” enables us to do the most justice to the complexity of experience (1983: 105).

5.6 LAST REMARKS

My overall goal of this chapter was to suggest Nietzsche is committed to scientific constructivism because he embraces object constructivism. What remains to be examined is my claim that scientific constructivism is Nietzsche’s reconception of science for overcoming nihilism. The next (and final) chapter attempts to make a case that for Nietzsche scientific constructivism provides an antidote for overcoming a central cause of nihilism by providing a life-affirming way to reconceive the scientific project.

279 “Eyes” are a metaphor for “perspectives.” See Janaway (2007): Ch. 12 for a compelling explanation of this passage from the point of view of the importance Nietzsche places on our affects in relation to knowledge. Though I don’t emphasize the role of affects in Nietzsche’s conception of knowledge, my account is entirely consistent with Janaway’s.
CHAPTER 6
LIFE-AFFIRMING SCIENCE

This final chapter examines Nietzsche’s reconception of science for overcoming nihilism, or what I call his life-affirming conception of science. My claim is that scientific constructivism is Nietzsche’s life-affirming conception of science because it satisfies the two main criteria – one negative and one positive – that must be met for a conception of science to be life-affirming. The negative criterion is that a life-affirming conception of science cannot affirm life-negating values. I argue that a conception of science that embraces scientific constructivism and rejects objectivist realism satisfies this criterion. The positive criterion is that a life-affirming conception of science must be one understood from the perspective of art. I contend that scientific constructivism satisfies this criterion because it accepts Nietzsche’s artistic conception of interpretation and holds that we contribute to creating reality. I finish the chapter by discussing why Nietzsche thinks scientific constructivism provides a basis for overcoming nihilism.

6.1 SCIENTIFIC CONSTRUCTIVISM AND LIFE-AFFIRMING SCIENCE

Which conception of science does Nietzsche think is life-affirming? A life-affirming conception of science cannot affirm life-negating values (see Chapter 2). Life-negating values are values that cannot be satisfied in the conditions of this world. Nietzsche maintains that the life-negating values that guide scientific practice are a product of an ascetic faith in truth. The ascetic faith in truth – the most recent expression of the ascetic ideal – affirms values derivative of a true world of being. Values derivative of a true world of being are those essentially
associated with metaphysical realism. Most basically, metaphysical realism is the ontological thesis that the world has a fully determinate nature that exists constitutively and conditionally independent of our perspectives. Thus, on Nietzsche’s account a life-affirming conception of science cannot affirm metaphysical realism.

Supporters of the Positive View commonly claim that Nietzsche embraces a conception of science committed to *perspectival realism* rather than metaphysical realism. They therefore conclude that a conception of science that embraces perspectival realism is not nihilistic. Perspectival realism is most basically the ontological thesis that the world has a fully determinate nature that exists constitutively, but not conditionally, independent of our perspectives. My suggestion is that Nietzsche’s life-affirming conception of science cannot endorse perspectival realism because it affirms values also affirmed by metaphysical realism. Both brands of realism endorse *objectivist realism*, and, I claim, objectivist realism affirms life-negating values.

Objectivist realism consists in three theses. The ontological thesis is that the world has a completely determinate structure constitutively independent of our perspectives (OR$_O$); the semantic thesis is that propositions are true if they correspond to this ontological conception of the world and false if not (OR$_S$); the epistemological thesis is that knowledge at least in part consists in propositions that correspond to this ontological conception of the world (OR$_E$). Notice a few things about these theses. First, Nietzsche considers OR$_O$, OR$_S$ and OR$_E$ to be *values* in the sense that they exemplify criteria that some believe our best theories should embrace (see Chapter 2). Second, if OR$_O$ is a value that is unrealizable in the conditions of this world, then OR$_S$ and OR$_E$ are as well, since they assume OR$_O$. Hence attacking objectivist realism only requires challenging OR$_O$. Last, OR$_O$ affirms both the metaphysical realist and perspectival realist ontological position that the world has a completely determinate structure that exists.
constitutively independent of our perspectives. So, if Nietzsche considers the structure of the world constitutively dependent on our perspectives, then OR\textsubscript{O} is unrealizable, and if so, then perspectival realism is nihilistic.

Objectivist realism captures a prevalent way of thinking about the world, truth, and knowledge. If Nietzsche were committed to this brand of realism his view would be similar to ones adopted by many modern scientists and philosophers – and this is what Positive View advocates typically maintain. Those who support the Positive View have done much work to show that Nietzsche is not the extreme, anti-scientific thinker often exemplified by those who prefer the Skeptical View, but rather has many commonsense realist commitments. My claim, however, is that Nietzsche endorses a conception of science that does not affirm objectivist realism – and this conception is even a response to the failings of that kind of realism. For Nietzsche, I suggest, objectivist realism is nihilistic because OR\textsubscript{O}, OR\textsubscript{S}, and OR\textsubscript{E} are values that cannot be realized in the conditions of this world.

Although showing that Nietzsche thinks OR\textsubscript{O} is nihilistic is sufficient to undermine objectivist realism, he also attacks OR\textsubscript{S} and OR\textsubscript{E} on their own terms. The previous chapter suggested that for Nietzsche the conditions of having propositions with determinate truth-conditions prevent OR\textsubscript{S} from being realized in this world. He says:

The will to truth is a making fixed, a making true . . . a reinterpretation into something that is [or has being]. Truth is thus not something out there and must be found out, discovered, but something that must be made and that provides the name for a process . . . an active determining, not a becoming conscious of something that is in itself fixed and determinate” (LN 9[91], cf. HH I: 11; GS 58, 301; BGE 21; TL).

Nietzsche thinks that for propositions to have determinate truth-conditions the objects our propositions reference “must be made” by the application of a “name” to some portion of
experience. Truth is “not a becoming conscious” of something that enjoys a “fixed and determinate” nature apart from our representational activities. OR$_S$ cannot be satisfied in this world because the conditions of there being propositions with determinate truth-conditions imply that for Nietzsche no proposition can correspond to a realm that exists constitutively independent of our representations. OR$_S$ is therefore nihilistic. Yet many Positive View supporters claim that Nietzsche is committed to OR$_S$. Clark, for example, believes Nietzsche adopts a “common sense version of the correspondence theory of truth” according to which true propositions correspond to objects ontologically independent of our representations of them. On my reading, Clark accredits Nietzsche with a view he actually regards as nihilistic (Clark 1990: 31, 39-40, 45; see also Leiter 1994; Nola 1987: 551). For Nietzsche any view that assumes OR$_S$ as a criterion for truth is not life-affirming.

If OR$_S$ cannot be realized in the conditions of this world, then, since OR$_E$ assumes OR$_S$, it follows that OR$_E$ is unrealizable. Nietzsche challenges OR$_E$ from the same premise he does OR$_S$. “There would be nothing that could be called knowledge,” he maintains, “if thought did not first re-form the world . . . into ‘things’” (WP 574, cf. GS 110; TI “Reason” 1, 2; HH I: 11, 16, 19). Knowledge requires objects we construct. So, knowledge does not at least in part consist in true propositions about a world that exists constitutively independent of us. Consequentially, OR$_E$ is nihilistic. Just like OR$_S$, many Positive View advocates maintain that Nietzsche embraces OR$_E$. For instance, Leiter asserts that for Nietzsche our perspectives are “trivially necessary conditions” of knowing but not “constitutive” of the objects of our knowledge claims. Leiter effectively commits Nietzsche to a position he criticizes as nihilistic (1994: 349-350; see also Clark 1994: 136-137). For Nietzsche any view committed to OR$_E$ as a criterion for knowledge is not life-affirming.
It is crucial to observe that OR_S and OR_E are untenable because OR_O cannot be satisfied in the conditions of this world. OR_O erroneously assumes that the world has a determinate nature constitutively independent of our perspectives. Previous chapters have suggested that according to Nietzsche the world has a determinate nature only in relation to our perspectives. Specifically, he thinks the identity conditions of objects are constitutively dependent on our descriptive representations. So, OR_O is unrealizable, and hence, like OR_S and OR_E, it fails to be life-affirming. It follows that Nietzsche’s life-affirming conception of science cannot embrace objectivist realism.

Objectivist realism is nihilistic because it is subsumed by the ascetic ideal. For Nietzsche the identity conditions of objects are essentially dependent on our descriptive representations because he considers representation interpretive. Interpretations make it the case that the world is organized into determinate kinds of objects relative to our cognitive perspectives. Those motivated by an ascetic faith in truth attempt to reject interpretation for this reason. Nietzsche says he is closely aware of

that venerable philosopher’s abstinence to which such a faith [viz. the faith in truth] commits one [as well as] that general renunciation of all interpretation (of doing violence, pressing into orderly form, abbreviating, omitting, padding, fabricating, falsifying, and whatever else is of the essence of interpreting) – all this expresses, broadly speaking, as much ascetic virtue as any denial of sensuality (it is at bottom only a particular mode of this denial). That which constrains these men, however, this unconditional will to truth, is faith in the ascetic ideal itself, even if as an unconscious imperative – don’t be deceived about that – it is the faith in a metaphysical value, the value of truth in itself (GM III: 24, my gloss in brackets).

Those guided by an ascetic faith in truth must reject interpretation because such a faith assumes knowledge in part consists in statements that correspond to a world that exists determinately as it does constitutively apart from our perspectives – “truth in itself” (see also Chapter 2.4). Objectivist realism expresses an ascetic faith in truth because it shares this commitment. It is
therefore incompatible with Nietzsche’s position that representation within our cognitive perspectives is essentially interpretive. Again, objectivist realism cannot form the basis of Nietzsche’s life-affirming conception of science.

From the preceding analysis there is good reason to think Nietzsche’s life-affirming conception of science holds that there is a constitutive relation between the world and our interpretations of it. I have argued that Nietzsche endorses a constructivist conception of science, according to which all scientific facts that are graspable in principle are constitutively dependent on our scientific descriptions. Scientific constructivism satisfies the main negative criterion for being life-affirming because it does not affirm life-negating values. It rejects what Nietzsche considers to be the nihilistic presuppositions of traditional conceptions of science. Hence scientific constructivism appears to be Nietzsche’s life-affirming conception of science.

This conclusion should not be surprising. Nietzsche endorses constructivism across many domains – not just science. In fact, he thinks our constructive actions enable the very possibility of human life:

One should not understand this compulsion to construct concepts, species, forms, purposes, laws (“a world of identical cases”) as if they enabled us to fix the real world; but as a compulsion to arrange a world for ourselves in which our existence is made possible: – we thereby create a world which is calculable, simplified, comprehensible, etc., for us (WP 521, my emphasis).

Elsewhere he adds:

It is we, the thinking-sensing ones, who really and continually make something that is not yet there: the whole perpetually growing world of valuations, colors, weights, perspectives, scales, affirmations, and negations. This poem that we have invented is constantly internalized, drilled, translated into flesh and reality, indeed, into the commonplace, by the so-called practical human beings (GS 301, see also 57; HH I: 16).

The theme is that for Nietzsche reality for us is constructed, by scientific or other means, and any view that attempts to reject this is life-denying.
6.2 SCIENCE AND ART

In the first chapter, I suggested that Nietzsche’s life-affirming conception of science for overcoming nihilism is one understood from the perspective of art. In GM Nietzsche says that understanding “science posed as a problem” – roughly, the problem that science is subsumed by the ascetic ideal – requires looking to the 1886 preface of BT (GM III: 25). There he claims that we must “view science through the lens [Optik] of the artist, and view art through the lens of life” (BT P: 2, cf. 15; GM III: 25). Understanding what it means to “view science through the lens of the artist” is crucial for understanding Nietzsche’s life-affirming view of science. As those who support the Skeptical View emphasize, Nietzsche claims that “art” is “fundamentally opposed to the ascetic ideal” (GM III: 25). “Art,” he explains in the notes, is the “counterforce to all will to denial of life, as that which is anti-Christian, anti-Buddhist, anti-nihilist par excellence” (WP 853, cf. BGE 211).

There are two ways one might interpret Nietzsche’s claim that we must “view science through the lens of the artist.” The first is an extension of the Overestimation Reading of Nietzsche’s view of the relation between science and the ascetic ideal (see Chapter 2.5). For Nietzsche there are many ways to understand the world, just as there are many perspectives within aesthetic discourse, and science does not have ultimate superiority over all other methods of evaluation. For instance, it may not be best to understand phenomena such as music in terms of truth, but by other means, such as aesthetic evaluation. Nietzsche remarks that the position that “the only rightful interpretation of the world” is one that “permits counting, calculating, weighing, seeing, grasping, and nothing else,” which he claims is the case with mechanistic accounts of science, is a “crudity and naiveté” – perhaps even “idiocy” (GS 373). With respect
to understanding music, Nietzsche says a “‘scientific’ interpretation of the world . . . might still be one of the stupidest of all possible interpretations of the world, i.e. one of those mist lacking in significance” (ibid). One important implication is that Nietzsche thinks the search for truth should not have authority in all domains of inquiry. Thus, he claims that overcoming science justified by the ascetic ideal involves depreciating the value of truth in a trial manner: “the value of truth must be experimentally called into question” (GM III: 24). We might have to deny truth a dominant role in inquiry after we assess its value in relation to other evaluative standards. Science is subsumed by the ascetic ideal insofar as we continue to overestimate the value of truth. Hence viewing science in a life-affirming manner is to have the creative propensity for understanding that science is just one among other systems of evaluating the world – and not necessarily the best.

I accept this as a necessary condition of a life-affirming conception of science. For Nietzsche scientific analysis is certainly not the only useful criterion of evaluation, and such recognition is crucial for understanding science in a life-affirming manner. Yet, this reading does not convince me as the best interpretation of the view that overcoming the ascetic ideal requires us to “view science through the lens of the artist.” The current reading holds that Nietzsche calls for a creative reconsideration of the scope of the scientific domain, whereas I contend that Nietzsche calls for a reconception of science itself from the perspective of art. Consider the following remarks. Nietzsche claims that science “requires justification” (GM III: 24) – it needs “a direction, a meaning, a limit, a method, [and] a right to exist” (GM III: 24). Science requires “an ideal of value, a value-creating power, in the service of which it could believe in itself” (GM III: 25). Science traditionally finds this in the ascetic ideal. Nietzsche defines the ascetic ideal as something that denigrates “our world” by valuing some “other world”
(see GM III: 10, 24; cf. GS 344). So a conception of science under the influence of the ascetic ideal gains “a direction, a meaning,” and ultimately a “right to exist” by affirming some “other world” as an “ideal of value.” These passages indicate that overcoming a conception of science subsumed by the ascetic ideal requires *reconceiving science itself*, not merely reassessing the legitimate domain of scientific inquiry. A life-affirming conception of science rejects having to affirm some “other world” for it to “believe in itself.” Now, a conception of science committed to some “other world,” I argued in Chapter 2, is one committed to *metaphysical realism*, or, I argued above, perspectival realism. Both realisms enable scientific discourse to “believe in itself” by supplying ontological, semantic, and epistemological desiderata for our scientific theories. Overcoming the ascetic ideal requires embracing a conception of science not committed to realisms of this sort; it requires a reconception of traditional conceptions of science. So, if Nietzsche thinks we must “view science through the lens of the artist” to overcome the ascetic ideal, then there is good reason to conclude that a life-affirming conception of science is one reconceived from the perspective of art. This is the main positive criterion of Nietzsche’s life-affirming conception of science, which, notice, is perfectly compatible with the criterion that a life-affirming conception of science does not dogmatically believe truth should be the only means of evaluation.

6.2.1 Scientific Constructivism and Art

If Nietzsche’s life-affirming conception of science is indeed *constructivist*, as I contend, it must be shown that scientific constructivism is a conception of science reconceived from the viewpoint of art. There are two ways of justifying this claim. The first is that constructivism embraces the creative element of art. Art is essentially creative and scientific constructivism
holds that our cognitive contributions play an essential role in creating reality. According to the constructivist, the dimensions and constituents of objects, and consequently the properties they embody, depend on our interventions. The second justification comes from Nietzsche’s work. I have reconstructed the argument as follows:

1. A life-affirming conception of science is reconceived from the perspective of art and embraces Nietzsche’s conception of interpretation (Chapter 1.2; Chapter 2.7; Chapter 6.1).
2. A conception of science that embraces Nietzsche’s conception of interpretation is constructivist (Chapter 5.4).
3. A conception of science reconceived from the perspective of art is a conception of science that embraces Nietzsche’s conception of interpretation.
4. So, a conception of science reconceived from the perspective of art is constructivist (2, 3).
5. So, a life-affirming conception of science is constructivist (1, 4).

For this argument to be sound (3) requires defense. The best way to justify the equivalence relation between the two claims in (3) is by looking at what they have in common, which is described in (1): both a conception of science reconceived from the perspective of art and a conception of science that embraces Nietzsche’s conception of interpretation are life-affirming. Showing that those two conceptions are the same, then, requires knowing (i) what features of art Nietzsche thinks are life-affirming and (ii) how Nietzsche’s conception of interpretation exemplifies these features. Providing a complete response to (i) is beyond the scope of this project. I will only investigate a subset of what Nietzsche regards as the life-affirming features of art, namely, those that help answer (ii). Justifying (3) depends on answering (ii).

280 It is certainly the case that not all aspects of the artistic discourse are life-affirming, since Nietzsche thinks art can exemplify life-denying pessimism (HH I: 115; GS 370; WP 572, 845). I am not concerned with the pessimistic features of art. Nietzsche proclaims that we should understand science through the perspective of the artist, and “view the artist through the lens of life” (BT P: 2). We should concentrate on the life-affirming features of art when attempting to understand Nietzsche’s reconception of the scientific discourse.
Giving a proper treatment of (ii), however, first requires framing (i) correctly. There are two points to make about Nietzsche’s understanding of the life-affirming features of art. First, Nietzsche considers the life-affirming features of art to be inherent to its method. He is primarily interested in art as a practice – more specifically, he care about the implicit or explicit affirmations of artistic practice – rather than a set of artworks or aesthetic objects (see HH II: 115, III: 173; GS 299, 370; TI “Raids” 8, 9, 24; WP 298, 677, 821, 845). For example, Nietzsche believes the artistic process involves an open, conscientious deception. Affirming deception somehow allows art to aid in counteracting 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, cf. GS 107). Nietzsche seems to make this claim in part because embracing falsification implies that our representations always frame some portion of experience, rather than represent the world as it is apart from our framing procedures (see below). The second point about Nietzsche’s understanding of the life-affirming features of art concerns the relation between art as a life-affirming practice and art as a practice that traffics in “lies” or falsifications. The life-affirming features of art that are important for my project are not those typically described in The Birth of Tragedy, where Nietzsche argues that art provides human beings with nothing more than illusions necessary for dealing with the cruelties of the world. He abandons this position by the time he writes HH. For Nietzsche, then, the life-affirming features of art are inherent to its method and do not derive from the idea that art is mere illusion.

What life-affirming features of art are exemplified in Nietzsche’s conception of interpretation? Three are crucial for my purposes: art accepts the testimony of the senses, engages in selective focus, and denies absolute standards. I proceed by explaining Nietzsche’s
understanding of a feature, why he considers it life-affirming, how it is exemplified in interpretation, and why this renders interpretation life-affirming. Throughout the discussion it is crucial to keep in mind that Nietzsche’s conception of interpretation forms the basis of his life-affirming conception of science. I hope to show that a conception of science that accepts his conception of interpretation, which exemplifies central life-affirming features of art, is constructivist.

There is one last point to make about Nietzsche’s life-affirming conception of science before proceeding. In Chapter 1, I suggested it would emerge that for Nietzsche a life-affirming conception of science enables us to conceive ourselves as doing science normatively and within time and history. Doing science normatively means accepting that a proper understanding of phenomena requires reference to our reasons about representing phenomena in certain ways. Practicing science within time and history involves relying on various scientific descriptions for coping with indefinitely complex experience rather assuming there is some specific way the world is constitutively apart from all description. The discussion that follows suggests doing science normatively and within time and history are essential features of Nietzsche’s life-affirming conception of science because they derive from the life-affirming features of art exemplified in interpretation.

6.2.2 Sense Testimony

The first life-affirming feature of art is that it embraces information from the senses. For Nietzsche art affirms empirical reality because it embraces sensory information. This affirmation is life-affirming because it counters the influence of the ascetic ideal. Nietzsche maintains that those subsumed by the ascetic ideal attempt to disparage sense testimony because
the senses are thought to hinder contact with some perfect, other-worldly realm, such as heaven
(see TI “Reason” 6; GM III: 11, 24, 25). Art expresses what Nietzsche calls a “good will to
appearance,” or an open affirmation of empirical reality, because it accepts rather than rejects
“sensate existence” (GS 107).

Art not only embraces sensory information, but it also transforms that information. Artistic discourse does not take sensory input as “given,” but instead represents subject matter by transfiguring, shaping, or arranging it somehow. The process of artistic transformation is partly why in later years Nietzsche remarks that art “lies” (see, e.g., GM III: 25). Art gives form to
sense data by framing it a certain way. Artistic representation need not be considered mere
falsification, however, since certain ways of framing can accurately reflect and represent the
world in experience (see Chapter 5.3.2).

Nietzsche thinks interpretation should be concerned only with what can affect our senses
(see Chapter 4.5.3; Chapter 5.4). The “renunciation” of “interpretation,” he claims, amounts to a
“denial of sensuality,” which leads to embracing the ascetic ideal (GM III: 24). Hence accepting
that our interpretations should target only what can affect our senses is life-affirming. Since
Nietzsche maintains that reality is what can in principle affect our senses (see Chapter 2.3;
Chapter 4.3.2), he holds that interpretation is life-affirming only insofar as it concerns empirical
reality.

Nietzsche also believes interpretations modify sensory information. He explains that
interpretive discriminations are present “in every experience, in every sense impression,” such
that there is no “‘reality’” without interpretation (GS 57, see also see Chapter 4.3.2; WP 500,
505, 520). In sense experience, he aptly remarks, “one is much more of an artist than one
knows” (BGE 192). Interpretive framing occurs both at the non-cognitive, sensory level, and
also within cognitive perspectives. With respect to the latter, consider Nietzsche’s comments on the soul. He proclaims that “new versions and refinements of the soul-hypothesis,” which attempt to demonstrate that agents are fundamentally will to power, should have “citizens’ rights in science” (BGE 12). The “new psychologist” who proposes this novel view of the self “exiles himself into a new desert and a new suspicion,” and “precisely thereby he also condemns himself to invention – and – who knows? – perhaps to discovery” (BGE 12). Nietzsche’s suggestion is that discovery requires creation. On my reading, this means that discovering new phenomena requires manufacturing a representational framework that determines the identity of some portion of experience. The idea that discovery requires creation then suggests that interpretations modify sensory information within our cognitive perspectives.

One might object that Nietzsche allows for discovery independent of creation. He says, for instance:

We, however, want to become who we are – human beings who are new, unique, incomparable, who give themselves laws, who create themselves! To that end we must become the best students and discoverers of everything lawful and necessary in the world [Und dazu müssen wir die besten Lerner und Entdecker alles Gesetzlichen und Nothwendigen in der Welt warden]: we must become physicists in order to be creators in this sense – while hitherto all valuations and ideals have been built on ignorance of physics or in contradiction to it (GS 335).

Creation occurs after the discovery of laws and necessities, which appear to hold in the world fully independent of our creative actions.

In response, it is important to understand how Nietzsche conceives laws and necessities. In the first aphorism of the section in GS where the above passage occurs, he remarks:

Let us beware of saying that there are laws in nature. There are only necessities: there is nobody who commands, nobody who obeys, nobody who trespasses . . . When will all these shadows of God no longer darken us? When will we have completely de-deified nature (GS 109)?
Nietzsche rejects laws of nature insofar as they are determined by a transcendent law-giver. He believes we should replace talk of laws with talk of necessities. Although in this passage he appears to think necessities exist “in nature” independent of human concern, elsewhere he indicates that necessity is a function of our representations. Consider the following passages. In HH he writes, “When we see a waterfall, we think we see freedom of will and choice in the innumerable turnings, windings, breakings of the waves; but everything is necessary, every motion mathematically calculable” (HH I: 106). This strongly suggests that according to Nietzsche necessity in natural events consists in being calculable. Since language, logic, and mathematics make events calculable, necessity appears to be a function of our representations. Waterfalls, breaking waves, and other natural events exemplify necessity not because necessity attaches to events antecedent to our representations of them, but rather because necessity depends on our representations of experience. He reiterates this point in BGE:

One should use ‘cause’ and ‘effect’ only as pure concepts, that is to say, as conventional fictions for the purpose of designation and communication – not for explanation. In the ‘in-itself’ there is nothing of ‘causal connections’, of ‘necessity’ . . . it is we alone who have devised cause, sequence, for-each-other, relativity, constraint, number, law, freedom, motive, and purpose (BGE 21).

Nietzsche links necessity with causality and claims that causality and related phenomena are essentially dependent on our representations (see also Chapter 1.4). In the notebooks, he also comments that “‘Mechanical necessity’ is not a fact: it is we who have interpreted it into what happens. We have interpreted the fact that what happens can be expressed in formulae as resulting from a necessity that governs what happens,” (LN 9[91]). Nietzsche thinks we have inferred the necessity of mechanical explanations from the “fact that what happens can be expressed in formulae,” which suggests necessity does not exist antecedent to calculability. Later in the passage, Nietzsche clearly states: “necessity is not a fact but an interpretation” (LN
9[91]). These passages indicate that according to Nietzsche necessity is a product of our representations of experience.

Why does Nietzsche say we should replace talk of laws with talk of necessities in GS 109? Presumably, it is because laws are erroneously thought to exist fully independent of our representations – especially if administered by a transcendent God – while necessities do not. In GS 109 Nietzsche says replacing law-talk with necessity-talk helps to facilitate a “de-deification of nature,” a project which in part means shifting away from the problematic position that there is a completely determinate, mind-independent world created and maintained by a transcendent God. In addition, Nietzsche sometimes claims that we should regard laws as calculable regularities. For instance, in BGE he says “law” is something “we alone” have “devised” (BGE 21). And in his notes he explicitly remarks, “If I reduce a regular event to a formula, I have foreshortened, facilitated, etc., the description of the whole phenomenon. But I have established no ‘law’” (WP 629). This provides reason to believe that Nietzsche thinks both laws and necessities depend on our creative actions.

Nothing in GS 335 is incompatible with this conclusion. When he claims that those who want to “create themselves” must be “discoverers of everything lawful and necessary in the world” (GS 335), he means that creating oneself requires an awareness of what we ordinarily regard as lawful and necessary. On closer inspection, lawfulness and necessity are complicated – but Nietzsche’s point in GS 335 does not require addressing such thorny issues. The passage targets self-creation, and Nietzsche’s considered understanding of lawfulness and necessity suggest that he thinks creation and discovery occur simultaneously.

281 In many places Nietzsche either denies laws of nature because they are inconsistent with a will to power ontology or reconceives them as a result of contingent relations between forces (see, e.g., BGE 22; LN 34[247], 35[5], 36[18], 36[31] 1[30], 2[139], 2[132], 14[79].
6.2.3 Selectivity

The second life-affirming feature of art is that artistic representation necessarily involves selective procedures such as inclusion, omission, interpolation, extraction, emphasis, and de-emphasis. “What does art do?” Nietzsche asks rhetorically, “Does it not select? Does it not highlight?” (TI “Raids” 24, see also “Raids” 9). Selective procedures fix the boundaries of the content of works of art so that subject matter can be perceived in particular ways. Under certain conditions, Nietzsche believes perceiving selected content can affect how we perceive the world. He remarks:

What means do we have for making things beautiful, attractive, and desirable when they are not? . . . Here we have something to learn . . . from artists . . . To distance oneself from things until there is much in them that one no longer sees and much that the eye must add in order to see them at all, or see things around a corner and as if they were cut out and extracted from their context, or to place them so that each partially distorts the view one had of the others and allows only perspectival glimpses, or to look at them through colored glass or in the light of the sunset, or to give them a surface and skin that is not fully transparent: all this we should learn from artists while otherwise being wiser than they [. . .] We . . . want to be poets of our lives (GS 299).

One thing we learn from artists is that certain kinds of selective attention may enable us to improve our lives. For example, we are able to emphasize aspects of our selves in ways that render some traits “beautiful, attractive, and desirable” when they would not otherwise be (ibid, see also GS 290). Nietzsche thinks this idealizing, selective process is vital for helping to overcome nihilism. While “a nihilist is a man 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 . . . artists at least fix an image of that which ought to be” (WP 585). Art is able to establish life-affirming goals for humanity by marking out what we should aspire to be (see also WP 821, 298; TI “Raids” 8).

The selective focus of the artistic method is exemplified in Nietzsche’s conception of interpretation. “The essence of interpreting,” he says, consists in procedures such as “pressing
into orderly form, abbreviating, omitting, padding, fabricating, [and] falsifying” (GM III: 24). Interpretive framing plays an essential role in determining what there is to perceive. It is the “active and interpretive forces through which alone seeing becomes a seeing something” (GM III: 12). Recall that the ascetic ideal attempts to denigrate interpretation because its framing and identity features make it the case that interpretations fail to represent a fully determinate, mind-independent world. This implies that the selective feature of Nietzsche’s conception of interpretation contributes to overcoming nihilism.

Emphasis on the selective element of Nietzsche’s conception of interpretation brings to the fore questions concerning our motives for fixing representational boundaries the way we do within cognitive perspectives. Nietzsche even remarks, “one should value more than truth the force that forms, simplifies, shapes, invents” (WP 602, cf. GS 301). Understanding the forces that inform our framing processes is presumably more important than truth because those forces construct the objects that determine representational success or failure of propositions (see Chapter 5.2). Nietzsche maintains that an appropriate understanding of some target phenomenon requires grasping the ways in which certain features of experience relative to others are relevant to our cognitive interests with respect to that representing that phenomenon. Investigation then proceeds in accordance with some reason or set of reasons to prefer particular methods of organizing. Hence taking into consideration the selective element of Nietzsche’s conception of interpretation suggests that he considers inquiry normative in that an appropriate understanding of some target phenomenon requires reference to our reasons about representing that phenomenon in certain ways.

Our understanding of planets is a good example of doing inquiry normatively. In 2005 astronomers discovered Eris. Eris is similar in size to Pluto, and for this reason it was initially
called it the tenth planet. Yet some in the astronomical community considered the discovery to be a strong reason for reclassifying Pluto as a dwarf planet. Reclassification would avoid setting Pluto at a minimum size for something to be a planet. It was argued that size is an inadequate criterion for distinguishing planets. So astronomers voted to establish a definition of ‘planet’ not based on size, which happened to exclude Pluto. This example indicates that a proper understanding of our reasons about organizing the heavens in particular ways is required for having a proper understanding of planets.

An example that occurs in Nietzsche’s work is causality (see also Chapter 1.4). He writes:

*Cause and Effect.* – We call it ‘explanation’, but ‘description’ is what distinguishes us from older stages of knowledge and science. We are better at describing – we explain just as little as our predecessors . . . And how could we explain! We are operating only with things that do not exist – with lines, surfaces, bodies, atoms, divisible times, divisible spaces. How is explanation to be at all possible when we first turn everything into a *picture* – our picture! It is enough to view science as an attempt to humanize things as faithfully as possible. Cause and effect: there is probably never such a duality; in truth a continuum faces us, from which we isolate a few pieces . . . An intellect that saw cause and effect as a continuum, not, as we do, as arbitrary division and dismemberment – that saw the stream of the event – would reject the concept of cause and effect and deny all determinedness (GS 112, see also 246; BGE 21; LN 2[86]).

The scientific project of “explanation” is to provide an account of causal events that exist independent of human actions. Nietzsche contends that science cannot “explain” causality. One reason is that comprehending causal relations requires the use of ideal objects, such as perfectly straight lines, which we construct (see also HH I: 11). Nietzsche also suggests we individuate causal events. He writes that an “intellect” that could perceive the fundamentally connected activity between events could justifiably deny causality because it would no longer individuate one event from another. This implies that understanding causal events requires reference to individuated events, which, because we individuate one event from another, indicates that
understanding causality requires comprehending our reasons for individuation. Accordingly, Nietzsche explains, “we learn to describe ourselves more and more precisely as we describe things in their succession” (GS 112). He even claims that it is “enough” for science to engage in a project of “description,” rather than “explanation.” The attempt to “explain” denies our normative relation to the objects of investigation and consequentially obstructs successful science. “What along can knowing be?” Nietzsche asks in his notes, and answers “‘Interpretation’, not ‘explanation’” (LN 2[86], 1885-1886). A conception of science understood as an “interpretive” enterprise, or as he says in the GS passage, one that is “descriptive,” affirms the normative element of inquiry.

6.2.4 Absolute Standards

The last life-affirming feature of art is that there are no absolute standards within aesthetic discourse. Absolute standards are those thought to be independent of perspective. Artists accept that experience is inextricably bound to perspectives, which are identified by a plurality of experimental forms, genres, methods, and techniques. “All life,” Nietzsche says, “rests on semblance, art, deception, points of view, and the necessity of perspectives and error” (ibid, cf. GS 54; BGE 2, 34). Thus, the attempt to reject perspective for an absolute standard leads to a denial of life. For example, Nietzsche claims that Plato, whose belief in an ultimate standard for truth led him to argue that art is either a diversion from truth or a seduction to untruth, expresses “a furious, vengeful enmity towards life itself” (BT P: 5). Plato is thought to be life-denying because he thinks there is some way things are with the world completely independent of perspective.
Nietzsche’s conception of interpretation is also incompatible with absolute standards. Interpretations are indexed to perspectives (see Chapter 4.3.2). The attempt to comprehend reality apart from all perspectives is life-denying because for Nietzsche perspectives effectively constitute reality (see Chapter 3.4). He adds:

Every metaphysics and physics that knows some finale, a final state of some sort, every predominantly aesthetic or religious craving for some Apart, Beyond, Outside, Above, permits the question whether it was not illness that inspired the philosopher (GS P: 2).

For Nietzsche the attempt to discover a “final state,” perhaps by delimiting a “final” theory in physics, is inspired by “illness,” most likely because of the presence of religious presuppositions in contemporary conceptions of science (see Chapter 2.4). On Nietzsche’s account, there can be “final” interpretations of phenomena only relative to some determinately specified set of interests (see Chapter 5.3.2). Because there are an infinite number of sets of concerns, however, there can be no “final” interpretation of the whole of reality. Nietzsche exclaims that he has “profound aversion” for “reposing once and for all in any one total view of the world” (WP 470, cf. BGE 22, 34).

A consequence of Nietzsche’s criticism of absolute standards is that scientific inquiry must be placed within time and history. We can only judge interpretations from the vantage point others, whether concurrent or past, since they cannot be compared to some reality antecedent to interpretation. Furthermore, Nietzsche holds that “reawakening the sense of comparison” by “pitting model against model,” or interpretation against interpretation, “advances humanity” (GS 4). This suggests placing inquiry within time and history is life-affirming. For instance, consider Nietzsche’s claim that “historical philosophy . . . can no longer be separated from natural science” (HH I: 1). Having an acute “historical sense” reveals that “everything has

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282 See Weinberg (1992, 2001) for a defense of the view that there will be a final theory in physics.
283 See also Leiter (2002): 274.
become: there are no eternal facts, just as there are no absolute truths” (HH I: 2). There are “no eternal facts” because facts arise in the course of organizing experience. This process is always under development: “[The world] has gradually become . . . and should thus not be regarded as a fixed object” – the world “has acquired color – but we have been the painters: it is the human intellect that has made appearance appear” (HH I: 16, cf. GS 46; WP 569). The ways we organize experience alters over time, and so Nietzsche thinks reality itself changes.\textsuperscript{284} Hence the claim that the world has some determinate nature antecedent to our interpretations of it, and so some specified character that exists outside the contingencies of how experience is interpreted in various ways throughout time history, is nihilistic (cf. GM III: 24-27).

6.2.5 Science Reconceived from the Perspective of Art

The previous section argued that scientific constructivism is Nietzsche’s conception of science reconceived from the perspective of art. Scientific constructivism holds that we contribute to creating reality and it embraces the artistic features of Nietzsche’s conception of interpretation. Constructivism accepts the evidentiary role of sense testimony and maintains that our interpretations actively transform that information. It also places special emphasis on the significance of the selective process in inquiry, most importantly because the reasons governing how we frame experience affects what facts there are. Finally, constructivism rejects absolute standards in the sense that it is explicitly opposed to there being some way the world is apart from our interpretations. It holds instead that reality is essentially dependent on our interpretations. Thus, scientific constructivism appears to be Nietzsche’s conception of science reconceived from the perspective of art.

\textsuperscript{284} More specifically, facts change because there are no a priori fixed persistence conditions of objects (see Chapter 3.2.4, Chapter 4.1). Nonetheless, Nietzsche thinks science delivers a world that is relatively stable (see GS 47).
6.2.6 Scientific Constructivism and Scientific Method

There is one last piece of evidence for this conclusion. For Nietzsche the life-affirming features of art are inherent to its method, and science reconceived from the perspective of art exemplifies the life-affirming features of art in its method. Nietzsche comments, “methods . . . are what is essential” (A 59). If methods “are what is essential,” though, we should expect to find praise of the scientific method in Nietzsche’s work, specifically, if my account is correct, praise that suggests he supports a constructivist conception of science.

Nietzsche indeed praises the scientific method. He comments, “the scientific spirit is based on the insight into methods” (HH III: 635). He even asserts that, “it is not the victory of science that distinguishes our nineteenth century, but the victory of scientific method over science” (WP 466). For Nietzsche scientific method refers to both an experimental procedure and a set of critical attitudes that govern investigation (see HH I: 22, III: 631-637; GS 2, 51, 293; BGE 209-210; GM III: 27; A 12, 13, 50, 59). As an experimental procedure, the scientific method “does not believe but does not lose itself in the process” (BGE 208). Unlike other methods that secure belief, such as mere conviction, appeal to intuition, or accepting authority, Nietzsche maintains that the scientific method is not strongly rooted in any particular set of beliefs – it “does not believe.” Applying the scientific method involves proposing hypotheses and accepting or rejecting them based on experiment. Following this method may lead inquirers to overturn the beliefs upon which hypotheses are based without calling the method itself into question – the scientific method “does not lose itself” in the process of inquiry. This is not the case with respect to other methods that secure belief. If a method presupposes a particular set of beliefs, then calling those beliefs into question also calls the method that fixes those beliefs into
question. According to Nietzsche the scientific method also refers to a critical attitudinal stance. It involves a multiplicity of analytical propensities, such as “deductive ability” (HH III: 635), “wise moderation” (HH III: 631), “becoming aware of the final and most certain reasons pro and con” (GS 2), “courage and hardiness of analysis” (BGE 209), a “mistrustful manner” (A 13), “cautious hand” (A 59), and so on. The scientific method is a disposition that provides what Nietzsche calls a “training in truthfulness” which teaches inquirers to be skeptical about accepting beliefs based on other methods, such as conviction, intuition, or authority (GM III: 27, GS 357; see also HH III: 631-637). Nietzsche locates this critical, scientific attitude in “men of experiments” and philosophers of the future (see BGE 210; GS 41).

Importantly, Nietzsche considers the scientific method closely linked with an aesthetic methodology. He praises conjoining the methods of science and art throughout his corpus. In an early discussion of Socrates, for example, who Nietzsche claims is the archetype “theoretical man” devoted to truth, Nietzsche asks “whether the birth of an artistic Socrates is altogether a contradiction in terms,” and decides that “art must be seen as the necessary correlative of, and supplement for science” (BT 14).285 The “artistic Socrates” can be seen as a combination of the pursuit of truth with recognition of the life-affirming features of artistic discourse – although the life-affirming features of art in BT differ from those Nietzsche develops in subsequent works. Furthermore, in GS Nietzsche claims that many dispositions had to come together for scientific thinking to originate – for example, the propensity “to doubt, to negate, to wait, to collect, [and] to dissolve” – and he envisions the emergence of a “higher human being” with a great

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285 In BT Nietzsche has deep-seated contempt for what someone might call “Socratism” understood as the unconditional faith in our rational capacities to deliver us unadulterated knowledge of the world (BT 14, 15). Socratism becomes a condition of Greek life, and Socrates the embodying symptom (BT 14, TWI “The Problem of Socrates” 1-3, 9). In rejecting the tragic character of life (brought to us through the vehicle of art), and in turn the aspects of change and contingency as a necessary part of the world of appearance, Nietzsche views Socratism as pessimistic. Yet, this pessimism catalyzes the continuation of art as a counterforce to reason and the absurdity of overzealous rationality (BT 15).
“organizing force” who can harness “artistic energies” while commanding the scientific drive for truth (GS 113). Finally, Nietzsche remarks, “one should value more than truth the force that forms, simplifies, shapes, invents” (WP 602, cf. GS 301). The method of selective focus, emphasized in aesthetic discourse, enables truth (see Chapter 5.2). Nietzsche praises the artistic method within cognitive perspectives, which is essentially the method exemplified by scientific constructivism.

6.3 SCIENTIFIC CONSTRUCTIVISM AND OVERCOMING NIHILISM

I have argued that Nietzsche’s life-affirming conception of science is constructivist. This section intends to show how Nietzsche thinks a constructivist conception of science aids in providing a countermovement to nihilism.

Nietzsche’s overall project is arguably centered on diagnosing and overcoming nihilism (see Chapter 2.1). For Nietzsche nihilism is the view that life is meaningless because the most esteemed values used to comprehend the world have become devalued (see WP 2, cf. 55; A 1). Values have become devalued because they cannot be realized in the conditions of this world. That is, they are life-negating. Nihilism arises as a result of the recognition that our highest values are life-negating. The feeling of meaninglessness that results from this recognition is nihilistic despair. Nietzsche maintains that such despair leads people to believe the world “deserves to be repudiated” (WP 37).

According to Nietzsche overcoming nihilistic despair requires revaluing life-negating values. “The feeling of valuelessness [is] reached with the realization that the overall character of existence may not be interpreted by means of these [categories]” (WP 12, my brackets cf. P: 4). The antidote for nihilistic despair, then, follows: “once we have devalued these three
categories, the demonstration that they cannot be applied to the universe is no longer any reason for devaluing the universe” (ibid, my brackets). The “category” pertinent to assessing Nietzsche’s life-affirming conception of science is a *true world of being*. I have claimed that values essentially associated with a true world of being are exemplified by objectivist realism. Nietzsche revalues the values of objectivist realism by showing that they cannot be realized in this world. His preferred ontological and epistemological positions inform this revaluation project. According to Nietzsche values inherent to positions like objectivist realism cannot be satisfied in the conditions of this world because the world in experience conceived as will to power has no determinate nature constitutively independent of our perspectives. Nietzsche employs the will to power hypothesis and the perspectival view of knowledge in part to revalue the life-negating values essentially associated with a true world of being.

Despite this revaluation project, however, Nietzsche maintains that many people have not come to appreciate that the values they hold in high regard are actually life-negating. As a consequence, the meaninglessness that arises when people come to this appreciation is yet not widespread. For Nietzsche nihilistic despair is not yet a pervasive phenomenon. If so, however, there is a prior, perhaps deeper worry: valuing life-negating values involves a *problematic deception*. The values that often guide scientific inquiry, for instance, presuppose that the world has a determinate nature that exists constitutively apart from our interpretations. It is not only the case that Nietzsche thinks such values cannot be realized in this world, but also that people fail to recognize this. He explains:

It is we, the thinking-sensing ones, who really and continually *make* something that is not yet there: the whole perpetually growing world of valuations, colors, weights, perspectives, scales, affirmations, and negations. This poem that we have invented is constantly internalized, drilled, translated into flesh and reality, indeed, into the commonplace, by the so-called practical human beings . . . we have created the world
that concerns human beings! But precisely this knowledge we lack, and when we catch it for a moment we have forgotten it the next: we misjudge our best power and underestimate ourselves just a bit, we contemplative ones. We are neither as proud nor as happy as we could be (GS 301, see also HH I: 16)

Reality is constructed, but we are largely unaware of it. The image we have of ourselves as grasping the way the world is constitutively divorced from us is based on a deception. This deception is problematic because it obstructs us from coming to an awareness that would give us a more meaningful relation to our work – “we are neither as proud nor as happy as we could be.” Overcoming this form of meaninglessness, which is a result of being deceived about the life-negating status of our highest values, must occur prior to overcoming the meaninglessness of nihilistic despair, which is a result of the recognition that our highest values are life-negating. Solving the former problem is necessary for being prepared to face nihilistic despair.

Nietzsche’s revaluation of the values essentially associated with a true world of being functions in part to liberate people from being deceived about the life-negating status of their epistemic values. Affirming will to power and perspectivism helps people come to realize that there is no way the world is constitutively divorced from our cognitive contributions. According to Nietzsche a conception of science that affirms will to power and perspectivism is therefore life-affirming – and this conception just appears to be scientific constructivism. Scientific constructivism holds that reality is constructed, and so, on Nietzsche’s account, affirms reality as it is. Constructivism reinvigorates the goal of gaining knowledge of the world by rejecting erroneous presuppositions about the way the world is. It allows agents to commit to the scientific project without deceiving themselves about the nature of scientific investigation. As a consequence, constructivism assists in helping to establish a meaningful relation between
inquirers and the objects of inquiry. Scientific constructivism helps restore meaning to our epistemic projects so that we may overcome nihilistic despair.

6.3.1 Last Remarks

Scientific constructivism offers what Nietzsche considers a **redemptive** conception of science. Nietzsche claims that throughout history the ascetic ideal has had total control over our projects – the ascetic ideal has permitted “no other interpretation, no other goal” other than its own (GM III: 23). Hence finding an antidote to nihilism requires reconceiving our relations to both present and past inquiry. “Redemption of this reality,” Nietzsche says, happens by “[liberating] the will and [restoring] its goal to the earth” (GM II: 24). Redemption requires commitment to realizable goals in contrast to goals proffered by those under the influence of the ascetic ideal.

Nietzsche invites us to understand redemption by examining Zarathustra (GM II: 24). Zarathustra proclaims that liberating the “will” in hopes of overcoming meaninglessness demands that we “re-create all ‘it was’ into a ‘thus I willed it,’” and “‘thus I shall will it’” (Z II: “On Redemption,” see also III: “Tablets” 3). Countering nihilism requires us to “re-create” the past to as a product of our “will.” However, “the will cannot will backwards,” so Nietzsche thinks we cannot literally “re-create” the past (ibid.). The past must instead be **reinterpreted**. “Creation” then seems to denote the advent of the awareness that the way the world is has always been a product of our interpretive interactions with it (cf. HH I: 16). Developing a redemptive relation to scientific inquiry requires being responsive to this awareness – an awareness that “restores [the will’s] goal to earth” (GM II: 24).
Scientific constructivism is clearly redemptive in Nietzsche’s sense. It affirms the view that reality is a product of our constructive interpretations. The traditional desire to uncover the way things are with the world constitutively independent of our activities is nihilistic because it is “other-worldly,” while constructivism is life-affirming because it “restores [the will’s] goal to earth” (GM II: 24). Unlike traditional conceptions of science, Nietzsche thinks by affirming realizable goals within scientific discourse constructivism provides a meaningful way to view past, present, and hopefully future relations between inquirers and objects of inquiry. Scientific constructivism is Nietzsche’s life-affirming reconception of science for overcoming nihilism.
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