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Scientific Fictionalism and the Problem of Inconsistency in Nietzsche

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ABSTRACT: In this article, I begin to develop Nietzsche's scientific fictionalism in order to make headway toward resolving a central interpretive issue in his epistemology. For Nietzsche knowledge claims are falsifications. Presumably, this is a result of his puzzling view that truths are somehow false. I argue that Nietzsche thinks knowledge claims are falsifications because he embraces a scientific fictionalist view according to which inexact representations, which are false, can also be accurate, or true, and that this position is not inconsistent.

KEYWORDS: science, knowledge, truth, fictionalism

Fictionalism plays a significant role in philosophy today, with defenses spanning mathematics, morality, ordinary objects, truth, modality, and more.[1] Fictionalism in the philosophy of science is also gaining attention, due in particular to the revival of Hans Vaihinger's work from the early twentieth century and to heightened interest in idealization in scientific practice.[2] Vaihinger maintains that there is an ubiquity of fictions in science and, among other things, argues that Nietzsche supports the position. Yet, while contemporary commentators have focused on fictionalism in Nietzsche's moral philosophy, his view of fictions in science has remained largely unexamined.[3]

In this article, I begin to develop Nietzsche's scientific fictionalism in order to make headway toward resolving a central interpretive issue in his epistemology. For Nietzsche knowledge claims are falsifications. Presumably, this is a result of his puzzling view that truths are somehow *false*. He says, for instance, "*Truth is the kind of error* without which a particular kind of living creature could not live [*Wahrheit ist die Art von Irrtum*, ohne welche eine bestimmte Art von lebendigen Wesen nicht leben könnte]" (*KSA* 11:34[253], see also *GS* 265).[4] It appears that claims we consider to be perfectly true are actually false. Call this the Problem of Inconsistency. Failing to find a solution to this problem would provide good reason to discard many of Nietzsche's thoughts on epistemology—his remarks would seem simply incoherent. In this paper, I argue that Nietzsche thinks knowledge claims are falsifications because he embraces a certain kind of scientific fictionalism. According to Nietzsche, we primarily look

to science (Wissenschaft)[5] for knowledge of the world. I suggest that Nietzsche prefers a version of scientific fictionalism according to which inexact representations, which are false, can also be accurate, or true, and that this position is not inconsistent.

It is helpful to begin by making some basic distinctions in contemporary scientific fictionalism. Fictionalism can be about language or ontology.[6] *Linguistic fictionalism* is the thesis that sentences of a particular discourse are best understood as saying something false—though usually useful—rather than true. An example is modal fictionalism, which holds that statements containing reference to possible worlds are not literally correct, but are instead convenient fictions. Linguistic fictionalists often retain the target discourse for practical purposes. Indeed, possible worlds talk serves many important functions in philosophy.

Ontological fictionalism is the thesis that the entities of a particular discourse do not exist. Error theorists about morality endorse ontological fictionalism. They hold that entities such as moral obligation and moral value fail to exist. Ontological fictionalists often claim that we are better off rejecting the target discourse. Accordingly, the error theorist contends that we should discard statements that assume the existence of moral entities. Linguistic and ontological fictionalism are regularly defended in tandem. One might think that a particular statement is best understood as saying something false, for example, because its referent is nonexistent. Nonetheless, one can in principle be committed to one thesis without embracing the other. Linguistic fictionalists, for instance, need not hold that the entities of a particular discourse do not exist.

The distinction between linguistic and ontological fictionalism provides a basis for distinguishing two ways in which scientific representations could be considered false.[7] A *fictive* representation about some entity is typically regarded as false because the entity, although real, is incorrectly described. An example is the ideal gas law, which idealizes the behavior of real gases. Fictive representations, which include idealizations, approximations, abstractions, and the like, are primarily evaluated by examining our language.[8] *Fictional* representations, by contrast, are chiefly assessed in relation to our ontology. A fictional representation about some entity is thought to be false because there is no such entity in reality. Models of luminiferous ether, which were used in the nineteenth century to describe a medium for the propagation of light, are currently regarded as fictional. A representation can be fictive or fictional without being both.

Disagreement about how to treat the truth value of fictive representations leads some philosophers to deny that both fictive and fictional representations are necessarily false. *Wide fictionalism* is the thesis that both fictive and fictional representations are false, whereas *narrow fictionalism* is the thesis that only fictional representations are false.[9] Narrow fictionalists maintain that inexact representations about real entities can be approximately true, while all representations about nonexistent entities are false. For example, narrow fictionalists hold

that the ideal gas law is true. Wide fictionalists believe inexact representations are literally false, similar to representations about entities that do not exist. These distinctions are helpful for understanding Nietzsche's view of fictions in science. Nietzsche often claims that our cognitive perspectives, or those concerned with knowledge, contain false representations.[10] I argue that Nietzsche is committed to narrow fictionalism, which protects his position from being inconsistent.

Nietzsche's view that knowledge claims are falsifications emerges clearly from the following passages.[11] In *GM*, he writes that "seeing becomes seeing *something*" by virtue of "active and interpreting forces," and "there is *only* a perspective seeing, *only* a perspective 'knowing'" (*GM* III:12).[12] It appears that knowledge claims are *interpretation*s. Later, he asserts that "the *essence* of interpreting" consists in activities such 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, translation modified). One feature of interpretation is *falsification*. Consequently, knowledge claims are falsifications. Indeed, Nietzsche proclaims that "the best science [die beste Wissenschaft]" produces a "falsified world" (*BGE* 24, translation modified).

For Nietzsche, I contend, knowledge claims are falsifications because they are fictive representations. The passages in *GM* imply that interpretations target a real entity. We could not "press into orderly form," for instance, something that does not exist (*GM* III:24). Nietzsche also retains epistemological discourse,[13] which, presumably, would not be the case if he thought there was no such thing as knowledge. Nietzsche therefore endorses the linguistic fictionalist thesis that knowledge claims—those produced by scientific means—somehow misrepresent the world. Knowledge claims are fictive.

Nietzsche believes knowledge claims are fictive because they are simplifications.[14] He often links knowledge with simplification, and simplification with falsification. He notes, "the entire apparatus for knowledge is an apparatus for abstraction and simplification" (*KSA* 11:26[61]), and consciousness is presented with "experiences [. . .] that have all been *simplified*, made easy to survey and grasp, thus *falsified*" (*KSA* 11:37[4], first emphasis added). For Nietzsche "'illusoriness' is a trimmed and simplified world" (*KSA* 13:14[93]).[15] And, "The best science [die beste Wissenschaft] seeks most to keep us in this *simplified*, thoroughly artificial, suitably constructed and suitably *falsified* world" (*BGE* 24, translation modified, second emphasis added). Why does Nietzsche understand simplifications as falsifications? Simplified representations are *inexact*, and inexact representations are *not literally true*.[16]

Nietzsche seems to believe that knowledge claims are fictive because all representation within our cognitive perspectives is inexact. This follows from his view of representational consciousness. On Nietzsche's account, conscious representation simplifies because representational consciousness itself emerges from the

need to communicate using concepts (*GS* 354). Concepts expedite reference by abstracting from differences among sensed particulars and applying generalizing designations to their similarities. According to Nietzsche, other features of representational consciousness, such as logic, mathematics, and something like the Kantian categories, function similarly. Logic and mathematics equalize by reducing differences to identities, and the categories subsume diverse information from the senses under a small set of cognitive forms. Representational features of consciousness simplify sensory information to help us navigate complex experience. To some extent, then, Nietzsche believes conscious representation is always inexact: "all becoming conscious involves a vast and thorough corruption, falsification, superficialization, and generalization" (*GS* 354; see also *KSA* 13:11[113]). This understanding of representational consciousness implies that all representation within our cognitive perspectives is fictive.

It could be argued that Nietzsche's view of representational consciousness leads him to reject knowledge for creatures like us altogether. Perhaps Nietzsche thinks imprecise representations are false *simpliciter*. If he were to embrace this position, he would endorse *wide fictionalism*, which, in this particular case, would entail the view that all conscious representations are false. It would follow that Nietzsche denies truth.[17] By contrast, I argue that Nietzsche endorses *narrow fictionalism*, which holds that inexact representations can be true.

To see why my interpretation is better than the alternative, consider an important feature of Nietzsche's understanding of truth. He writes, "*Truth is the kind of error* without which a particular kind of living creature could not live" (*KSA* 11: 34[253], see also *GS* 265). Those who claim that Nietzsche rejects truth would likely interpret this by concentrating on the qualification "without which a particular kind of living creature could not live." It could be the case that "truth" merely picks out a psychological attitude toward one's beliefs. On this reading, although we have a strong psychological need to consider our beliefs true, truth simply does not exist.[18] Nietzsche could have made this clearer by saying, "*The illusion that there is truth* is something creatures like us cannot live without." This interpretation dissolves the Problem of Inconsistency—if there is no truth, there is no problem. The difficulty with this reading, however, is that Nietzsche asserts that truths exist. He declares, for instance, "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" (*KSA* 13:11[108]). This assumes truth exists, and Nietzsche clearly casts himself as the "warrior of knowledge" against the "nihilists" who deny truth. Nietzsche is no "nihilist" about truth. The position that Nietzsche rejects truth therefore fails to do justice to the texts.

Someone unsympathetic with the view that Nietzsche denies truth might attempt to explain the claim that "*Truth is a kind of error*" by arguing that

Nietzsche uses the predicates "true" and "false" to refer to different but compatible domains. R. Lanier Anderson, for example, follows Richard Schacht in thinking 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.'"[19] Anderson argues that Nietzsche rejects truth conceived as correspondence to a realm that exists independently of our cognitive organization of experience and accepts truth conceived as internal to our epistemic practices, specifically science.[20] This reading helps clarify many apparently inconsistent passages.[21] However, it cannot explain Nietzsche's claim that truth is a "*kind*" of falsification. The German is "Art," meaning "*type*" or "*form*," and the idea that truth is a *kind*, *type*, or *form* of falsification makes sense only if "true" and "false" apply within the same domain. Nietzsche is suggesting that truth is a particular *manner* in which a claim is false, not that "true" and "false" refer to completely separate realms. Anderson's reading that truth is possible only within our epistemic practices leaves unexplained why Nietzsche considers truths within our epistemic practices to be false. Thus, Anderson's interpretation does not provide a solution to the Problem of Inconsistency.

On my view, when Nietzsche says "*Truth is a kind of error*," he means that *truths are a particular kind of inexact representation*. Unfortunately, this reading faces an immediate problem. Arguably, statements cannot be simultaneously true and false. However, Nietzsche rejects bivalence about truth. He asks, "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?" (*BGE* 34). It seems best to understand truth as an *approximate* evaluation.

A representation is approximately true to the extent that what it describes is similar to the target described.[22] To understand how approximately true statements are evaluated, consider assessing the accuracy of maps as an analogy. Maps are representationally successful just in case they are accurate enough to satisfy some specified set of concerns in relation to representing some target. With respect to travel, for example, road maps are constructed to represent distances and omit information about atmospheric conditions, animal populations, and so on. Our interests are crucial for determining parameters that constitute representational success. Likewise, the application of an approximate representation will be evaluated relative to some set of concerns. Our concerns help render the truth conditions of approximate representations determinate. To assess those conditions, then, we must delineate which interests are relevant, and to what degree, relative 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.

Nietzsche can consistently embrace the position that truth is approximate in conjunction with the position that representation within our cognitive perspectives is always inexact. An *inexact* representation can be *accurate* insofar as the representation satisfies what we determine to be representational success. Consider the statement that celestial bodies such as planets exhibit hydrostatic equilibrium. To say planets exhibit hydrostatic equilibrium is to say planets are massive enough for the force of their own gravity to dominate over the pressure of the forces that bind their physical structure. This balance makes them round. An object must exhibit hydrostatic equilibrium to be a planet—a rough, jagged object will not qualify. Importantly, calculating hydrostatic equilibrium for celestial bodies involves using approximate variables. For example, one must hold constant the fluctuating pressure of the materials that compose planets. As a result, the statement that celestial bodies like planets exhibit hydrostatic equilibrium is inexact. The statement is also accurate, though, provided that approximate measures are employed in calculations that satisfy our concerns for what counts as equilibrium. This suggests that literally false statements can be true in an approximate sense.

One might object to the view that for Nietzsche representations within our cognitive perspectives can be approximately true. It is reasonable to think that evaluating the truth conditions of an inexact representation requires acquaintance with the relevant exact representation. If so, Nietzsche may be in trouble. He seems to believe that exact representations are unintelligible. The conditions that facilitate conscious representation render such representations impossible.

Nietzsche would likely claim that there are two conditions that must be met for an approximate representation to be evaluated as true. The first turns on his remark that "there is *only* a perspective seeing, only a perspective 'knowing'" (*GM* III:12). We cannot represent something fully independent of our representations of it. Representations cannot be compared to an unrepresented world, but only to other representations, whether perceptual or descriptive. So, representations can be exact and inexact only in relation to other representations. If so, then Nietzsche can claim that exact representations are possible while embracing the position that representation is ubiquitously inexact. Exactness is not determined by precisely specified objects independent of our representations of them. In order to evaluate an inexact representation as accurate it must be recognized 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.[23]

The second condition that must be met to evaluate the truth of an approximate representation turns on the idea that our interests partially constitute the constraints for assessing whether a representation is accurate. One must recognize that representations *may be otherwise* because they are indexed to some set of concerns not relevant for some problem. For example, physicists interested in

hydrostatic equilibrium work by abstracting away from the irregular features of a planet's crust, while those interested in topography may aim to detail such attributes. Representations are exact and inexact only in relation to other representations indexed to differently specified sets of concerns. These two conditions provide Nietzsche with the resources to evaluate the truth conditions of inexact representations.

I have argued that Nietzsche holds that knowledge claims are falsifications because he embraces the narrow fictionalist position that representation within our cognitive perspectives is inexact and truth is approximate. Nietzsche rejects the wide fictionalist view that all imprecise representations are simply false. He thinks we can attain truths about the world while, in some sense, always working with inexact representations. In the notes, 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" (*KSA* 11:38[4], see also *KSA* 11:36[23]; *HH* I:16; *GS* 265). Such apparently paradoxical remarks, which are numerous in Nietzsche's corpus, make good sense on the reading that Nietzsche endorses narrow fictionalism. This commitment, I have suggested, saves his epistemology from the Problem of Inconsistency. The view that true claims are false is, in fact, no problem.

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NOTES

1. See Matti Eklund, "Fictionalism," in *The Stanford Encyclopedia of Philosophy*, ed. Edward N. Zalta (Fall 2011), http://plato.stanford.edu/archives/fall2011/entries/fictionalism/.

2. Hans Vaihinger, *The Philosophy of "As If,"* trans. C. K. Ogden (New York: Barnes and Noble, 1966). Arthur Fine is often credited with Vaihinger's revival. See Arthur Fine, "Fictionalism," in *Fictions in Science*, ed. Mauricio Suarez (New York: Routledge, 2009), 19–36.

3. For Nietzsche's moral fictionalism, see Nadeem Hussain, "Honest Illusion: Valuing for Nietzsche's Free Spirits," in *Nietzsche and Morality*, ed. Brian Leiter and Neil Sinhababu (Oxford: Oxford University Press, 2007), 157–91; R. Lanier Anderson, "Nietzsche on Truth, Illusion, and Redemption," *European Journal of Philosophy* 13.2 (2005): 185–225. For Nietzsche's view of fictions in science, see George J. Stack, *Nietzsche's Anthropic Circle: Man, Science, and Myth* (Rochester, NY: University of Rochester Press, 2005).

4. I use the following translations of Friedrich Nietzsche's texts: *Antichrist*, in *The Portable Nietzsche*, ed. and trans. Walter Kaufmann (New York: Penguin, 1976), 565–656; *Beyond Good and Evil*, trans. Walter Kaufmann (New York: Vintage, 1989); *Daybreak*, ed. Maudemarie Clark and Brian Leiter, trans. R. J. Hollingdale (Cambridge: Cambridge University Press, 1997); *Human, All Too Human*, trans. R. J. Hollingdale (Cambridge: Cambridge University Press, 1996); *On the Genealogy of Morals*, trans. Walter Kaufmann (New York: Vintage, 1989); *The Gay Science*, ed. Bernard Williams, trans. Josefine Nauckoff (Cambridge: Cambridge University Press, 2001); *Thus Spoke Zarathustra*, in *The Portable Nietzsche*, ed. and trans. Walter Kaufmann (New York: Penguin, 1976), 121–439; *Twilight of the Idols*, trans. Duncan Large (Oxford: Oxford

University Press, 1998); "On Truth and Lies in a Non-moral Sense," in *Philosophy and Truth*, ed. and trans. Daniel Breazeale (Amherst, MA: Humanity Books, 1979), 79–100; *Will to Power*, ed. Walter Kaufmann, trans. Walter Kaufmann and R. J. Hollingdale (New York: Vintage, 1968).

5. "Wissenschaft" refers to any critical discipline that involves systematic teaching and research, including the humanities and natural sciences.

6. See Matti Eklund, "Fictionalism."

7. See Mauricio Suarez, "Fictions in Scientific Practice," in Suarez, *Fictions in Science*, 3–18.

8. However, those who stress that scientific *models* are fictive would not typically characterize their view as exemplifying linguistic fictionalism. Models are nonlinguistic items. See Ronald Giere, *Scientific Perspectivism* (Chicago: University of Chicago Press, 2006), 76–78.

9. For accounts of wide fictionalism, see the following in Suarez, *Fictions in Science*: Arthur Fine, "Fictionalism" (19–36); Anouk Barberousse and Pascal Ludwig, "Exemplification, Idealization, and Scientific Understanding" (77–90); Alisa Bokulich, "Explanatory Fictions" (91–109); Carsten Held, "When Does a Scientific Theory Describe Reality?" (139–57); Rachel A. Ankeny, "Model Organisms as Fictions" (193–204); Tarja Knuuttila, "Representation, Idealization and Fiction in Economics: From the Assumptions Issue to the Epistemology of Modeling" (205–34). For accounts of narrow fictionalism, see (in Suarez, *Fictions in Science*) Margaret Morrison, "Fictions, Representations, and Reality" (110–38); Eric Winsberg, "A Function for Fictions: Expanding the Scope of Science" (179–92); Paul Teller, "Fiction, Fictionalization, and Truth in Science" (235–48).

10. See, e.g., *HH* I:16, I:19; *GS* 110; *BGE* 24, 192; *GM* I:13, III:24; *TI* "Reason" 2, 5, "Errors" 3; and *KSA* 11:36[23].

11. I am not concerned with Nietzsche's early view, presented in *TL*, that all knowledge claims are false. This is not his considered position. For an influential argument why in *TL* Nietzsche holds that all our beliefs falsify, see Maudemarie Clark, *Nietzsche on Truth and Philosophy* (Cambridge: Cambridge University Press, 1990), chap. 3. Clark claims that by the time Nietzsche writes *GM* (1887) he has abandoned his position in *TL* in part by rejecting his commitment to the representationalist view that we cannot know anything about the objects of the world that give rise to our perceptual states. It will emerge that my explanation for why Nietzsche thinks knowledge claims are falsifications depends not on representationalism, but rather on the idea that representations (both perceptual and descriptive) always simplify. This view appears to be the case throughout Nietzsche's career. Perceptual and descriptive simplification even plays a strong role in motivating Nietzsche's representationalist position in *TL* (see, e.g., 82–83).

12. Nietzsche places "knowing" in scare quotes here to contrast it with knowledge of objects that exist independently of our mode of cognition, such as things in themselves.

13. See, e.g., *Z* I: "On the Gift Giving Virtue"; *A* 48; *EH* "Books: *BT*" 2; *GS* 14, 242, 249, 280, 324, 343; *GM* P.

14. Much of what follows develops ideas introduced in sections III and IV of Justin Remhof, "Overcoming the Conflict of Naturalized and Evolutionary Epistemology in Nietzsche," *History of Philosophy Quarterly* 32.2 (2015): 181–94.

15. For other passages that associate falsification with simplification, see *KSA* 11:34[46], 12:7[54], 11:26[61]; *GS* 111, 354; *BGE* 24, 192, 230.

16. For discussion of this view, see Paul Teller, "Representation in Science," in *Routledge Companion to the Philosophy of Science*, ed. Martin P. Curd (New York: Routledge, 2008), 490–96.

17. For the view that Nietzsche is indeed committed to the position that there is no truth, see Babette E. Babich, *Nietzsche's Philosophy of Science* (New York: State University of New York Press, 1994).

18. Thanks to Scott Jenkins for this suggestion.

19. Anderson, "Nietzsche on Truth, Illusion, and Redemption," 193. See also Richard Schacht, *Nietzsche* (London: Routledge and Kegan Paul, 1983), chap. 2.

20. In his earlier work, Anderson holds that truth conceived as correspondence to a realm that exists independently of our cognitive organization of experience refers to an otherworldly realm of Kantian things in themselves. See "Overcoming Charity: The Case of Maudemarie Clark's *Nietzsche on Truth and Philosophy*," *Nietzsche-Studien* 25 (1996): 307–41; "Truth and Objectivity in Perspectivism," *Synthese* 115 (1998): 1–32; "Nietzsche's Views on Truth and the Kantian Background of His Epistemology," in *Nietzsche, Epistemology, and Philosophy of Science*, ed. Babette E. Babich and Robert S. Cohen (Dordrecht: Kluwer, 1999), 47–67. In later work, however, Anderson comes to hold that the realm that exists independently of our cognitive organization of experience is a phenomenal realm of the unconscious. See "Sensualism and Unconscious Representations in Nietzsche's Account of Knowledge," *International Studies in Philosophy* 34.3 (2002): 95–117; and "Nietzsche on Truth, Illusion, and Redemption."

21. E.g., *BGE* 229; *KSA* 12:2[154], 11:36[23].

22. What follows owes much to Teller, "Representation in Science."

23. Nietzsche's account, unlike other otherwise similar accounts, such as Teller's, does not assume the existence of perfectly precise, nonapproximate representations. See Teller, "Representation in Science," 493. Now, some passages in Nietzsche's corpus suggest that he thinks a representation may be "complete," which could mean that the representation is ultimately not approximate (e.g., *GM* III:12). However, not only do other passages seem to deny this (e.g., *GS* 374), but also his view of representational consciousness appears to render it impossible.