

Nietzsche's Reconception of Science: Overcoming Nihilism

There is a genuine puzzle over how to understand Nietzsche's view of science. One approach finds him praising scientific naturalism as the superior method for investigating the world (Clark 1990: 103-110, Leiter 2002: 1-22, 264-278). Yet another contends Nietzsche thought science should be relegated to one among many equally warrantable worldviews or somehow overcome altogether given nihilistic foundations (Deleuze 1963: 44-46; Babich 1994, Blanchot 1995: 121-124; Rorty 1989). Each method has its inadequacies. The former tends to isolate science from Nietzsche's other prominent philosophical concerns, e.g. nihilism, and perhaps for this reason views his positive conception of science as not more interesting than a thoroughgoing empiricism. This seems odd, if for no other reason because Nietzsche seems to offer the will to power as a scientific alternative to untenable empiricist positions¹ while finding our view of science as it currently stands contributing in part to the diminution of humanity.² On the other hand, the latter approach has difficulty explaining Nietzsche's consistent praise for the scientific discipline, especially *after* its ascetic condemnation in the *Genealogy*³, and so downplays his attempts to describe a new conception of science that might overcome the nihilistic implications of these worries.⁴ My position rests between these. I will retain a notion of Nietzsche's positive conception of empirical science but show this conception explicitly responds to the threat of nihilism. This paper argues that viewed through the lens of scientific constructivism Nietzsche uses the will to power and perspectivism to reconceive science as a life-affirming rather than life-negating discipline in order to answer the crisis of coming nihilism.

§1. *Science and Nihilism*

Nihilism is the view that life is valueless, which for Nietzsche follows from our lacking achievable goals.⁵ Since this is rooted in the Christian-moral worldview, the “nihilistic consequences of contemporary natural science” derive from its being “influenced by [Christian] moral judgments” (WP 1, cf. 4). In this section I suggest that for Nietzsche defeating nihilism entails reconceiving science’s life-negating conception of truth inherited from Christian morality.

To better characterize nihilism let us utilize Reginster’s helpful distinction between nihilism as disorientation and nihilism as despair.⁶ Nihilistic disorientation is the bewildering loss of the possibility of objective values which surfaces in the wake of the death of God.⁷ Nihilistic despair is the frightening consequence of the recognition that our highest values are necessarily unrealizable in this (or any) world.⁸ Nietzsche is more concerned with the latter, since the inference from discrediting belief in God to nihilistic despair holds only on the assumption that meaningfulness via the realization of our highest values entails belief in God (or, equivalently, a metaphysical world). This assumption obtains only if God’s existence allows us to achieve our highest values. But if so, it must be because those values cannot be realized in *our* world. Those (highest) values are therefore “life-negating” because *life cannot meet the conditions necessary for their realization*. When put into practice they condemn life.⁹ In contrast to this, we will understand “life-affirming” values as simply *those (highest) values that issue in commitments that can be satisfied*. On this interpretation of nihilism, then, defeating despair entails either challenging the claim that God is dead or revaluing life-negating values.

Nietzsche targets the latter, which takes the form of reconceiving three “categories” which fundamentally inform life-negating values. Supposing “the world may no longer be interpreted in terms of these,” Nietzsche concludes “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). We must reconceive the value that (a) existence has a final aim, (b) pluralities can be unified, and (c) there is a “true world” of being.

The latter two seem to refer to scientific aims or presuppositions.¹⁰ Explicating (b) Nietzsche says “[Nihilism] is reached...when one has posited a totality, a systematization, indeed any organization in all events, and underneath all events” (ibid.). So (b) is the value that a plurality of “events” should be subsumed under an all-encompassing “grand unity” (ibid.). Since we “invent a world beyond [ours]” from “psychological needs” to *ground* this unity, Nietzsche thinks belief in (b) leads us to posit the “true world” in (c) (ibid.). Here (c) refers to there being a determinate ontological “ground floor” (GS 373). With this (b) seems to presuppose (c), which is thus fundamental. The point is if science categorically values the object of at least (c) it is nihilistic. If so, abolishing nihilistic science is a *necessary* condition for confronting nihilism at large.¹¹ In what follows I will concentrate on (c) since it encompasses (b) and has a special relation to the nihilistic Christian-moral worldview.

Nietzsche’s critique of the “true world” of (c) is well known.¹² Nonetheless, few are committed to its suggestive metaphysical realism. We therefore charitably reinterpret (c) as asserting the generic scientific realist claim that every factual disagreement has a determinate resolution in virtue of a certain preexisting structure and that a satisfactory scientific description contains sentences corresponding to this structure.¹³ Let the ontological view stated here be (c_o), the view of truth (c_t).

Nietzsche thinks science accepts this reconstruction of (c). The story is that Christian morality survives God’s death and the Christian–moral view of truthfulness becomes “translated...into a scientific conscience” (GS 357, cf. GM III: 27) that “*thereby affirms another*

world” (GS 344, cf. GM III: 24; WP 1). In other words, God or being is discredited while the ultimate value of truth – the Christian-moral view that truthfulness is the highest value – outlives this loss by growing into a scientific ethos. Science consequently assumes a characteristically “metaphysical” view of truth substantively indistinct from (c_t), and on the impetus of this valuation presupposes the existence of a world to which true beliefs correspond, (c_o). This value denigrates the “ambiguous” or indeterminate character of “our world” of becoming (GS 344). The considered view is that science “attempts to escape into a beyond” (WP 1) by valuing (c_t) and (c_o) while opposing “our world.”

The main issue is over the valuation of some form of objective “determinacy” assumed by both (c_t) and (c_o), in contrast to some form of objective “indeterminacy” Nietzsche finds central to “our world.” I will show that his reconception of science considers indeterminacy essential and that the value of determinacy cannot be satisfied. This will grow into the difference between a life-affirming and life-denying science.

§ 2. *The Reconception*

Nietzsche claims the world is essentially will to power, and I contend that with certain qualifications this is his life-affirming reconception of ontology.¹⁴ It is the position that the world is fundamentally composed of unstable configurations of bundles of active forces (WP 567). Structures or quanta of force are constantly in tension within themselves and one another, lacking a unifying substratum or even fixed persistence conditions (WP 552). This intrinsic diachronic instability means the world as will to power is objectively *ontologically indeterminate*.

Will to power thus undermines the objective determinacy of (c_o). This fact alone, however, is not sufficient for overcoming a nihilistic ontology. The will to power seems to be a metaphysical *stipulation* similar in kind to (c), and at least part of the reason Nietzsche attacks (c) as nihilistic is its status *as* a conjecture baiting science to posit (c_o).¹⁵ It is therefore difficult to see why the will to power offers us a life-affirming reconception of ontology. There is a way, I think, to make this viable.

Nihilism follows because by losing *being* “one cannot endure [*the reality of becoming*]” (WP 12). This is because our values have only been “false projections” of being onto a world of becoming, so removing the world of being previously thought to ground our values severs the link between our values and the way the world is. The world therefore appears “valueless” (ibid.). The tactic for overcoming this despair must be to somehow authentically link our values with a will to power ontology. I claim the will to power’s inherent indeterminacy affords Nietzsche the opportunity to reconceive science as that which fundamentally reflects certain value judgments. If I can show this, the will to power will be an essential element of Nietzsche’s reconception of science for overcoming (c_o), rather than just another possible instantiation of (c). My argument emerges in a reply to an interpretation of Nietzsche’s bundle theory of force ontology.

In *Nietzsche’s Perspectivism*, Hales and Welshon point out that bundle theories have difficulties accounting for individuation.¹⁶ Assume objects are aggregates of forces. If so, any identifiable aggregate at all, no matter how arbitrary, appears to satisfy the conditions for being an object. But many sets of force relations seem not to be objects, so this ontology is untenable. There is textual evidence suggesting Nietzsche can either (1) accept this universalism, (2) appeal to the *constellationist* view that individuation obtains through an external interpretive stance

taken on those bundles, or (3) hold the *organizationist* view that objects are distinct given an intrinsic structure.¹⁷ Hales and Welshon choose organizationism. I will argue that for Nietzsche organizationism is in some sense trivial and that his position is robustly constellationist. Constellationism is a constructivist position which claims individuation holds on account of our playing a role in somehow *making* objects by demarcating and fixing a thing's boundaries through interpretive activities.

Nietzsche has a two-part argument against organizationism. First, the view "that things possess a constitution in themselves apart from interpretation" he calls an "idle hypothesis" (WP 560, cf. GM III: 12). The reason is that intrinsic unification cannot adequately account for individuation because we have no way of understanding the nature of the principle by which a quanta of force organizes itself, at least "apart from interpretation" (ibid). It is "idle" because it is *insufficient*. Nietzsche goes on to argue that constellationism compensates for this insufficiency.

Consider the following. Nietzsche says "a 'thing' is the sum of its effects, synthetically united by a concept" (WP 551).¹⁸ This means "the question 'what is that?' is an establishment of meaning from some other viewpoint. The 'essence'...is something perspectival," thus "*it is considered' is the real 'it is'*" (WP 556, my emphasis).¹⁹ Since it is the "active and interpreting forces through which alone seeing becomes seeing *something*" (GM III: 12), "the perspective therefore determines the character of 'appearance'" (WP 567). Note these last two quotations are used by Nietzsche to describe perspectivism and both show strong evidence that perspectivism is a constructivist position. They do not merely suggest the received view that all views are interest-relative and provisional.²⁰ This will be important for seeing how will to power and perspectivism can be mutually supportive.

Let us try to make these remarks coherent and philosophically defensible. Let α , β , γ ,... be the stars in the universe, P_s be the set containing all stars, and P_1 to P_n be all combinatorial sets of stars.²¹ Suppose we want to know if α is a part of Orion, or an instance of the property ORION STAR. Attending to a list that describes which stars are members of which sets will not help, so neither will knowledge about any a-perspectival fact of the matter that, for example, α is a member of P_{14} and not P_2 . Rather, we first need to know which set picks out all and only instances of the property ORION STAR. And this fact depends on our organization of the firmament. By deciding P_{14} , but not P_2 , will have the property ORION STAR, we play a cognitive role in determining which star has the property, and thus that α is or is not *in fact* an instance of one individuating property or another. Thus “the perspective therefore determines the character of ‘appearance’” (WP 567, cf. GM III: 12).²²

Generalizing, this means that what a thing is depends in part on the role it plays in our relationship to the world or what experiential boundaries solidify it as being that thing.²³ In the a-perspectival world there are no determinate facts as to which constellation α , β , or γ ... belongs. In the context of refuting (c_0), there is no determinate resolution for settling possible factual disagreements without a theoretical framework for doing so that delimits made boundaries. The criterion for P_s , for example, is *itself* only such given astronomy’s fixing of the property STAR. Now, since on this view it is unintelligible to say one framework is closer to the Real than another because there is no framework-independent world to act as a referent for adjudicating accounts, pluralism follows. In other words, *ontological indeterminacy* implies *conceptual indeterminacy*. Possibly, there are many coexisting true world descriptions which are equally warrantable yet inconsistent or irreducible to a uniform framework.

The strongest objection to this is that both p and not-p may turn out to be facts.²⁴ Nietzsche's strategy is to relativize p to one theoretical description, not-p to another, and acknowledge as an acceptable consequence of his constellationist position the possibility of two inconsistent scientific descriptions.

One way he argues this is by reconceiving the law of non-contradiction (LNC) as that which reflects certain commitments.²⁵ Here is how. If LNC holds, then necessarily not both p and not-p. If necessarily not both p and not-p, this must be an a priori claim.²⁶ So if LNC holds, it does so a priori. For Nietzsche, however, a priori claims are "provisional assumptions" (WP 497), meaning they are falsifiable stipulations. Thus upholding a priori claims rests only on a certain system's needs. If not, such claims would presuppose a "knowledge of being," or knowledge of a description-independent world which harbors unfalsifiable scientific propositions, which Nietzsche rejects (WP 516). He concludes LNC obtains only given our requirement to "posit and arrange a world that shall be called true by us" (ibid.). The pluralism that is entailed by constellationism maintains that we have only a tentative "conceptual" ban on non-contradiction and nothing more (ibid). The payoff is that we can accept inconsistent facts relativized to alternative scientific descriptions insofar as is necessary.

Nietzsche's full argument against organizationism is now clear. I've argued that his constellationism holds that a quantum of force is instantiated as an object if and only if it satisfies a place in a conceptual scheme determined by an external interpretive stance. Here the organizationist may respond that constellationism is still dependent on some sort of a-perspectival antecedent world content. If so, organizationism is fundamental. Nietzsche does concede that all matter satisfies some degree of self-sustaining organization.²⁷ Organizationism is necessary for individuation. Yet it is not sufficient. The kind of intrinsic unity

organizationism claims individuates matter does not entail the kind of unity that will qualify matter as satisfying the interpretive conditions of an ontologically distinct object. We saw that extensionally individuated α neither is nor is not an instance of certain properties minus certain cognitive contributions.²⁸ Organizationism *requires* constellationism to give bundles specific character. Constellationism is thus both necessary and sufficient for individuation. This means *our value-laden or perspectival frameworks play a non-trivial role in determining the world's ontological structure on the will to power model.*

This new understanding of ontology entails a reconception of truth. Since (c_t), the claim that a true scientific proposition is one that adequately corresponds to a determinately structured world, presupposes (c_o), (c_t) falls as well (trivially). Nonetheless, let us directly refute (c_t) by showing perspectivism gives us a positive reconception of truth. Consider the following:

If I make up the definition of a mammal, and then, after inspecting a camel, declare ‘look, a mammal,’ I have indeed brought a truth to light in this way...[This] contains not a single point which would be ‘true in itself’ or really and universally valid apart from man (TL).

‘Truth’ is therefore not something there, that might be found or discovered – but something that must be *created* and gives name to a process...[it is an] active determining – not a becoming conscious of something that is in itself firm and determined (WP 552).²⁹

These quotes connect constellationism with perspectival truth. How we categorize the world will in part determine what is true. We might think constructing, say, a biological taxonomy involves attaching terms to an antecedently ordered organic world. On this view, then, prior to schematization, camels and platypuses are alike and so they are both mammals. However, because any two things are alike in some respects and not others, similarity *simpliciter* is insufficient for categorization.³⁰ Although platypuses lay eggs while camels do not, we

categorize platypuses as mammals because they share particular properties with mammals we find relevant to mammal-hood.³¹ This involves distinguishing important from unimportant commonalities. In arranging these boundaries, then, *we make certain value judgments which determine certain facts*. If value judgments are necessary for the construction of facts, then on a scientific systematic level truth values will be products of a certain system's internally demarcated standards. This falsifies (c_t).³²

Nietzsche's reconception of science thus consists in rejecting both (c_o) and (c_t) by holding that our descriptions play a crucial role in both delimiting what constitutes the objects of our scientific propositions and concomitantly determining the conditions of what it is for a scientific proposition to be true.

§3. *Life-Affirming Science*

Since the will to power as an objectively indeterminate ontology entails we individuate bundles through object construction, and object construction requires value judgments, a science that affirms an objectively indeterminate ontology in conjunction with a perspectival constructivism and corresponding view of truth is necessarily life-affirming. Nietzsche thinks positing (c) as a scientific ideal entails a kind of *self-deception* because it presupposes a view of science that desires to eradicate value judgments from establishing factual judgments. Since this is impossible, (c) denotes life-negating or nihilistic science. Life-affirming science simply rejects the value of value independence and so allows us a possible means to commit to the discipline without deceiving ourselves. This possibility gives scientific projects a kind of *authenticity* or *meaningfulness*. Nietzsche's reconception thus presses against the

meaninglessness or nihilistic tendencies inherent in derivatively Christian-moral worldviews such as (c). Overcoming nihilistic science, then, abets overcoming nihilism overall.

Notes

¹ For this theme see BGE 22, 36; WP 567, 1076; HAH 19; GS 109.

² On the relation between science and nihilism see BT P: 2, 14, 15; HH I: 16, 21; GM III: 27; TWI “Raids” 37; WP 17, 37, 53, 68, 69, 331, 580, 608.

³ For this theme see TWI “Reason” 3; A 13, 15, 47-48.

⁴ For example, see HAH 11, 16, 19; GS 108-113; BGE 22, 36.

⁵ See WP 1, 5, 36, 585, 55.

⁶ Reginster 2006: 25-28.

⁷ See WP 2, cf. 36.

⁸ See WP 701, 585, 247.

⁹ See A 7 for an example of this. We should note that Nietzsche repeatedly calls these values “moral” (see BT P: 4; WP 461, 1066). Life-negating science, for Nietzsche, is science done in the “shadow” of the Christian-moral interpretation of the world. We explain this near the end of §1. For other ways of understanding Nietzsche’s conception of “life-negating,” see Reginster 2006: 44-49.

¹⁰ Reginster interprets (a) – (c) to denote issues having to do with ethics (Reginster 2006: 54-103; 148-201). Now, this reading of (a) seems right. We must rid ourselves of the notion that there will be “the growth of love and harmony in the intercourse of beings; or the gradual approximation of a state of universal happiness” because the aims or objects of their valuations are impossible to satisfy (WP 12). I take a different route and argue that we should understand (b) and (c) as scientific claims. Undoubtedly, though, the “true world” of (c) has moral origins.

¹¹ See note 1 for this theme.

¹² Nietzsche’s criticism of (c) can be summarized in a dilemma. The true world of being either (1) causally or (2) non-causally grounds the empirical or “apparent world” of becoming or change. If (1) causally, then this ground *itself* either is or is not subject to the conditions of change over time. If it is, then it can simply be explanatorily reduced to the empirical world, and if not, then it plays no role in our best scientific theories and so can be jettisoned; “we have no right to it” (WP 12). And this last option also applies to (2). Nietzsche contends that the “true world” is either a deflationary or useless concept. For variants of this argument see HAH 16; GS 54; BGE 2, 16; TWI “Reason” 1, 6, “World”; WP 17, 553-555, 567, 568, 579, 584.

¹³ See HAH 16; GM III: 24; GS 58, 111, 344; TWI “Reason” 5 for at least some evidence that the substance of this reinterpretation is consistent with the substance of the kind of metaphysical realism Nietzsche rejects.

¹⁴ We therefore take this view seriously. For evidence that Nietzsche did so as well see GS 349; GM II: 12; BGE 23, 36, 186, 259; Z II: 12; A 2, 6, 17; WP 552, 567, 568, 634-636, 1067, and many others; Schacht 2000, Hales and Welshon 2000: 62 ff.

¹⁵ The full reason he attacks (c₀) is because it is derivative of a *Christian-moral* conjecture.

¹⁶ Hales Welshon 2000: 69

¹⁷ For evidence of universalism see WP 568, 635; for evidence of constellationism see GS 58; WP 517, 521, 552, 556, 574; for evidence of organizationism see WP 636.

¹⁸ See also WP 561; GS 58; BGE 268.

¹⁹ See also TL, GS 57, 112, 114, 121, 301; HAH 16; BGE 21, 192; WP 606. It is clear that “essence” is a placeholder and that the content of identity is essentially dependent upon an interpretation rather than any degree of intrinsic organization.

²⁰ Though, of course, on the constructivist view all perspectives *will* be interest-relative and provisional.

²¹ As we proceed, note that because Nietzsche is not sympathetic to their being an analytic/synthetic distinction, a clear distinction between natural and artificial kinds, metaphysical necessities, substances, essences, and the like, what follows does not take these into account.

²² This is beyond a trivial semantic claim that we make language and language describes the world. Rather, we make language and language in part makes the world.

²³ Nonetheless there are always anterior constraints dictating the possibilities of constructing “things” and their place within a particular ontological structure. Truth is constrained because acceptable inquiry is constrained. Nietzsche understands there are resisting forces we have no control over. Constraints include the input from sensations (BGE 154; TWI “Reason” 3), the need retain 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. Nietzsche only rejects the possibility of uncovering a pre-given foundation serving as the final constraint. How we carve up the world, and what constraints there are in doing so, are provided only by the dominant organizing interpretive forces available (see, e.g., TWI “Errors” 5; GM III: 23).

²⁴ See Boghossian 2006: 39-41, Kukla 2000: 91-104 for typical statements of this objection.

²⁵ See WP 516.

²⁶ Experience plays no essential justifying role in the fact that, for instance, it cannot be the case that two and two can and cannot be four. That being said, the obvious counterexamples to Nietzsche’s pluralism seem to be math and logic. For Nietzsche, however, these rest on relations of “making” fundamentally dissimilar things (bundles of forces) identical (both synchronically and diachronically) and equal based on our cognitive need to do so. Neither property exists in the world apart from human contribution. Math and logic operate like concepts: they are based on the contingent need to do away with particulars and subsume generalities for certain purposes in order to make things communicable and calculable. For remarks on math see HAH 11, 19; GS 112, 355; TWI “Reason” 3; WP 516, 530, 554; for logic see HAH 18; GS 111; TWI “Reason” 3; WP 508-522; 554.

²⁷ See WP 636, 533.

²⁸ Extensional individuation is in this sense trivial, as I mentioned above.

²⁹ See also GM III: 12; GS 58, 112, 121, 301; BGE 210, 268; WP 481, 503, 517, 556.

³⁰ See WP 480, 503, 561, 585, 594.

³¹ Nietzsche is thus not sympathetic to Kripke’s and others’ intuitions regarding there being biological natural kinds.

³² Specifically, it falsifies (c) because pluralism is presupposed here.

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