



Moral physiology and vivisection of the soul: why does Nietzsche criticize the life sciences?

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ABSTRACT

Recent scholarship has shown Nietzsche to offer an original and insightful moral psychology centering on a motivational feature he calls ‘will to power.’ In many places, though, Nietzsche presents will to power differently, as the ‘essence of life,’ an account of ‘organic function,’ even offering it as a correction to physiologists. This paper clarifies the scope and purpose of will to power by identifying the historical physiological view at which Nietzsche directs his criticisms and by identifying his purpose in doing so. Nietzsche’s criticism, it is argued, is a widespread and (contra many interpreters) pre-Darwinian description of the basic dispositions of organisms and their internal processes. The purpose of this criticism is to undermine the efforts of Herbert Spencer and Arthur Schopenhauer to derive moral-psychological insights from that description. The paper concludes that Nietzsche’s proposal to conceive of ‘organic function’ in terms of will to power is of little import for his moral psychology besides clearing away competing views.

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1. Introduction

In the latter half of the 1880s, Nietzsche frequently criticizes a purportedly widespread view of the ‘basic drive’ in organisms (alternatively, of ‘organic function,’ of ‘the will of life,’ or of ‘life’ itself) and presents will to power (WP) as a preferable alternative. Consider two passages¹:

Physiologists should reconsider positing the drive for self-maintenance [den Selbsterhaltungstrieb] as the cardinal drive of an organic being. Above all

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¹See also BGE 36, 259; GM II.12; A 6; TI Skirmishes 14; 1887 11[12], 11[96]; 1888 14[174].

something living wants to *release* its strength [Kraft] – life itself is will to power –: self-maintenance is only one of the indirect and frequent *consequences* of this. – In short, here as everywhere, be careful of *superfluous* teleological principles! – as is such a drive for self-maintenance. (BGE 13)²

Willing to maintain oneself [Sich selbst erhalten wollen] is the expression of distress, of a limitation of the genuine, basic drive of life, which sets out upon *expansion of power* and, in this will, often enough puts self-maintenance into question and sacrifices it. One should regard it as symptomatic when individual philosophers, like the consumptive Spinoza for example, see, have to see, the decisive matter precisely in the so-called self-maintenance-drive: – it’s just people in distress. That our modern natural sciences have enmeshed themselves in the Spinozistic dogma to such an extent (most recently and crudely in Darwinism with its incomprehensibly one-sided doctrine of the ‘struggle for existence’ –), this is apparently due to the lineage of most researchers of nature: they belong to the ‘people [Volk]’ in this respect [...] [D]istress does not *reign* in nature but rather overflow, wastefulness, even to an absurd extent. The struggle for existence is only an *exception*, a temporary restriction of the will of life; the great and small struggle everywhere revolves around superiority, around growth and expansion, around power, in virtue of the will to power, which just is the will of life. (GS 349)

Notice three features of both passages: first, Nietzsche criticizes a view of the nature of organisms he thinks commonly held by ‘physiologists,’ ‘researchers of nature,’ and others (Spinoza). This view – call it *the self-maintenance view* (SMV) – is that the most basic disposition of all organisms, as revealed in their behavior and internal processes, is that of maintenance or preservation (*Erhaltung*) of the organism as a whole. Second, Nietzsche argues that there must be a more basic account of the dispositions of organisms since, besides self-maintenance, organisms also display tendencies toward expansion, growth, and power even where such tendencies undermine self-maintenance. Finally, Nietzsche proposes WP as an *alternative* to SMV; WP is supposed to be a basic disposition that explains both exceptions to self-maintenance (growth, wastefulness) and self-maintenance itself (as a response to a condition of distress). Hence, what SMV posits is ‘superfluous.’

Despite receiving much scholarly attention, several things remain puzzling about these passages. Foremost, *why* does Nietzsche offer WP as a corrective physiological theory at all? As I discuss below, Nietzsche’s alternative to SMV is unoriginal, and it’s unclear what’s at stake for him in this

²Translations are mine, based on Nietzsche (2009–). I use these abbreviations:

A *The Antichrist*.

BGE *Beyond Good and Evil*.

GM *Toward a Genealogy of Morality*.

GS *The Gay Science*.

[Year] [#] Unpublished notebooks (as catalogued in Nietzsche 2009–).

TI *Twilight of the Idols*.

extant debate. While Nietzsche treats WP as a basic and ubiquitous feature of animal motivation – one with evaluative significance³ – it’s particularly unclear what he hopes to accomplish by connecting that view to a view of the end-directed order exhibited in the behavior of the lowest life forms and their internal processes. Additionally, *whom* is Nietzsche even targeting for criticism in these passages? Many commentators identify SMV with Darwinism, but, as I show, this is mistaken.

In this paper, I offer a corrective reading of the view Nietzsche targets for criticism (SMV) and argue that his purpose in doing so is to undermine the efforts of Herbert Spencer and Arthur Schopenhauer to derive moral-psychological insights from SMV. I conclude that Nietzsche’s concern in presenting WP as a theory of life is to clear room for his own, distinctive moral psychology in terms of WP. My argument is organized around these three questions:

Who is the target of Nietzsche’s criticism (Section 2)?

What is the basis for his criticism (Section 3)?

And *why* does he offer this criticism (Section 4)?

2. Who is the target of Nietzsche’s criticism?

2.1. On the origin of Nietzsche’s suspicion

It’s common to read Nietzsche’s criticism in BGE 13 and GS 349 as principally directed against Darwinism of one form or another.⁴ In my view, to do so is a mistake. But since it’s a common mistake, it bears closer consideration.

Nietzsche does indeed single out Darwinism (parenthetically) for special ire in GS 349. Darwinian natural selection was the subject of heated debate in Nietzsche’s day. And some of the works influencing Nietzsche in these passages take aim at Darwinism.

Nevertheless, identifying the target of Nietzsche’s criticism in these passages (SMV) with Darwinism is implausible. First, doing so renders Nietzsche’s critical argument a *non sequitur*. John Richardson expresses the point this way:

[In passages like BGE 13] Nietzsche seems to misread Darwinian survival as an ‘end’ in too literal a sense: as the aim of a will or drive or instinct, analogous to that suspect will to power with which he replaces it. [...] Nietzsche’s terms ‘will’ and ‘drive’ suggest an intentional end-directedness – that either power or

³Nietzsche’s positive moral psychology in terms of WP is beyond the scope of the present paper. I recommend Reginster (2006); Katsafanas (2013).

⁴See Richardson (2004), Johnson (2010), Emden (2014), Acampora (2013), Moore (2002). Many other interpreters casually invoke Darwinism in order to explain these passages: e.g. Young (2010, 538).

survival is an *intended goal*. And this in turn suggests that there is some kind of *representation* of the goal, which picks it out in advance and steers behavior toward it. (2004, 22)

And Darwin's theory of natural selection posits no representational states guiding organic operations, development, or adaptation. Moreover, Nietzsche's criticism of the 'drive for self-maintenance' is especially inapt when directed against Darwinian natural selection since the operative notion of fitness more closely maps on to *tending to bear fertile offspring* than *tending to survive*. So, as Richardson puts it, to the extent that Nietzsche's criticism of Darwinism is 'power, not survival' it rather misses the point.⁵

Not only are these criticisms irrelevant to Darwinism, but Nietzsche doesn't even present them as directed against Darwinism in particular. Rather he presents SMV as a much broader target (which, to be clear, Nietzsche takes to *include* Darwinism). There is no reference to Darwin in BGE 13 at all. In GS 349 Nietzsche's explicit target is the widespread error of positing 'willing to maintain oneself' as a basic instinct rather than 'a limitation of the genuine, basic drive of life, which sets out upon *expansion of power*.' Nietzsche brings up Spinoza as an exemplar. And only then does he mention Darwinism parenthetically, alluding to F. A. Lange's more tempered criticism,⁶ as a further *example* of the pervasiveness of this error. So, even on a surface reading Nietzsche's critical target does not appear to be Darwinism or Spinozism but a larger trend of which both are notable examples.

Since neither the substance nor the presentation of Nietzsche's criticism concerns Darwinian natural selection, it is a mistake to identify Darwinism as SMV. One might object that, since some of Nietzsche's sources explicitly target Darwinism, he is likely doing the same.⁷ But I caution against attributing to Nietzsche the rhetorical aims of his sources when he appropriates their observations and arguments. Moreover, as I discuss below, it's misleading to characterize Nietzsche's sources as principally concerned with Darwinism.

In general, we should be wary of a peculiar anachronism. Since we now see natural selection as playing an important role in explaining the natural ends of organisms, one is tempted to read the debates surrounding Darwin in Nietzsche's day as concerned with this and other explanatory

⁵Lange ([1875] 1887, 577), which Nietzsche read carefully, similarly defends Darwin as probing deeper into nature than the 'end-directed self-maintenance [zweckmässige Selbsterhaltung]' at which 'the shortsighted teleologist marvels'.

⁶'True, Darwin with that magnificent and so often successful one-sidedness [mit jener grossartigen und so oft erfolgreichen Einseitigkeit] [...] implemented his principle as though he needed to extract everything from it exclusively' (Lange [1875] 1887, 593).

⁷Moore (2002, 53–55).

contributions natural selection has made to the life sciences. But in fact many of the debates surrounding Darwin in Nietzsche's day are rather uninteresting to us *looking back*.⁸ One reason for this may be the widespread agreement long before Darwin on the basic *description* of natural ends, as I discuss below. In any case, looking back we find arguments directed at Darwin but which do not bear on anything distinctive to him. We should, therefore, resist the temptation to read attacks on Darwin by Nietzsche and his sources as invariably concerned with what we now regard as the most distinctive and interesting elements of Darwinism.

2.2. Social Darwinism

Some commentators who recognize the irrelevance of the substance of Nietzsche's criticism of SMV to natural selection, propose that his target is *Social Darwinism* instead. But this reading is also implausible.

Emden (2014), for instance, suggests that 'it was Spencer's translation of Darwin into the realm of social and political ideas that was, for Nietzsche, the main point of contention' in BGE 13 and GS 349 (2014, 162–163). There is some support for this suggestion. Nietzsche appears to have been rereading (or reconsidering) Spencer's *The Data of Ethics* within a year of writing BGE and the second edition of GS (wherein GS 349 first appeared).⁹ Later in GM II.12, Nietzsche names Spencer as an exponent of the physiological view he criticizes in favor of WP. Spencer was also criticized by some of the radical biology Nietzsche read. And I show below that Spencer espouses precisely SMV. Nevertheless, Nietzsche's criticism of SMV has virtually nothing to do with Spencer's *Social Darwinism*.

Emden's reconstruction of Nietzsche's criticism of Spencerian *Social Darwinism* relies not on the content of BGE 13 and GS 349 but on notebook passages written in different periods altogether.¹⁰ These passages concern, on the one hand, the strong teleological structure of Spencer's arguments and, on the other hand, the covertly Christian content of Spencer's moral conclusions (Emden 2014, 165–166). Neither of these concerns resembles Nietzsche's objection to positing self-maintenance as the basic disposition of organisms. BGE 13 does refer to this positing as 'superfluous teleology,' but this is because the disposition posited is redundant not because it is problematically teleological. I discuss below how Nietzsche's criticism bears

⁸For some examples, see Lange ([1875] 1881, 570–614).

⁹See 1885 35[31], 35[34], 1885 40[4].

¹⁰Viz, 1881 11[45], 11[98] and 1888 14[123], [133].

on the *support* Spencer offers for his moral conservatism, but the support in question is precisely Spencer's acceptance of SMV, not his views on social evolution.

Given, again, the lack of resemblance of Nietzsche's criticism of SMV to his arguments against Social Darwinism and the lack of any indication that such is his target in the relevant passages, I turn to suggest an alternative reading of SMV.

2.3. Life before Darwin

I argue that the general target of Nietzsche's criticism in BGE 13 and GS 349 is a *descriptive* account of the basic dispositions or *ends* of organisms widely espoused long before Darwin. A survey of philosophical comments on biology in the eighteenth and nineteenth centuries reveals convergence on the basic character of the ends to which biological organisms are directed. The normal operation of organisms and their parts are described as directed toward self-maintenance through coordinated activity between those parts of the organism such as is necessary for continued survival of the whole organism in light of its needs within a changing environment. Sometimes the end of reproduction (often described as maintenance the species) is included as a second end, sometimes as a consequence, and sometimes as a variation of the first.

Notice that this description perfectly maps on to the view Nietzsche targets (SMV) in the passages in question. Notice, too, that this pre-Darwinian description of natural ends is subtly distinct from evolutionary fitness – roughly, *tending to bear fertile offspring*. I show below that this older description of the basic ends of organisms is a point of broad agreement even among those who offer competing philosophical explanations of the basis for attributing those ends to nature. This explains Nietzsche's presentation of SMV as a widespread, received view of organisms.

Consider a few notable examples. In his third *Critique*, Kant famously argues that natural ends or 'purposes [*Zwecke*]' are only 'regulative' as opposed to 'constitutive principles' in that they lend order to our scientific descriptions of natural events without our being able to assimilate them to purely causal descriptions of the phenomenal world and without our knowing whether they correspond to real, noumenal forces. Kant defines a natural end as an event that is simultaneously an efficient effect and final cause of itself. Unlike in artifice, where the effects produced by, say, a watch (displaying time) are not for the sake of the watch but for the sake of some external watchmaker with her own ends in view (telling time), natural ends

can be grasped as performed by *and* for the sake of the organism itself. Kant's own example is a tree, and his comments on this example reveals his acceptance of SMV.

Kant recognizes three ways in which a tree is an end of itself:

First, a tree generates another tree [... T]he tree that it generates is of the same species; and so it generates itself as far as the *species* is concerned. [...] Second, a tree also generates itself as an *individual*. This sort of effect we call, of course, growth. [...] *Third*, one part of this creature also generates itself in such a way that the preservation of the one is reciprocally dependent on the preservation of the other. ([1790] 2000, 5:371)

Kant attributes to the tree three ends or purposes (1) to reproduce (preserve the species), (2) to grow (back) limbs, leaves, etc., and (3) to exhibit an organic structure. Kant's continued discussion makes it plain that (2) and (3) really serve the further end of survival within a changing environment. So, Kant's examples of natural ends are that organisms aim at their own self- and species-maintenance – the very SMV Nietzsche criticizes.

Another example comes from a figure influential on Kant but also on a tradition of vitalism within biology that only became defunct in Nietzsche's day. The vitalists sought to explain organic processes in terms of special, occult forces unique to organisms. These *vital* forces were intended to explain the end-directedness of organisms, their parts, and their development without the attribution of mentality. These forces are occult because they are supposed to be irreducible to observable, physical–chemical processes. And so, as for Kant but for different reasons, these forces are detectable in their effects (the behavior, internal processes, and development of organisms) though not observable in their substance.

Highly influential on the vitalists was a notion developed in the 1781 work on embryology by physician and professor of medicine, Johann Friedrich Blumenbach. In *Über den Bildungstrieb*, he writes:

[T]here exists in all living creatures, from men to maggots and from cedar trees to mold, a particular inborn, lifelong active drive. This drive initially bestows on creatures their form, then preserves it, and, if they become injured, where possible restores their form. [...] It shows itself to be one of the first causes of all generation, nutrition, and reproduction. [...] I give it the name of *Bildungstrieb* (*Nisus formativus*). (as quoted in Richards 2002, 218–219)

Here we see Blumenbach espousing the view that organisms are fundamentally disposed toward self-maintenance by virtue of the *Bildungstrieb*, which in turn explains most organic functions.

A third example comes from Claude Bernard, a nineteenth-century, French physiologist, who was famous for his extensive use of vivisection – conjuring up in the public's imagination the image of the cold and even cruel

scientist slicing open live animals to learn a little about what makes them tick. This image of Bernard is probably what inspired Nietzsche to use ‘vivisection’ as a favored metaphor for his merciless brand of moral psychology.

Bernard was a leading *critic* of vitalism in the life sciences.¹¹ His seminal work continually returns to this theme:

The primary essence of life is a developing organic force, the force which constituted the mediating nature of Hippocrates and the *archeus faber* of Van Helmont. But whatever our idea of the nature of this force, it is always exhibited concurrently and parallel with the physico-chemical conditions proper to vital phenomena. (Bernard [1865] 1957, 92–93)

Removing any ambiguity about his opposition to positing occult explanans in biology, he adds: ‘we call properties vital which we have not yet been able to reduce to physico-chemical terms; *but in that we shall doubtless succeed some day*’ (93 emphasis added).

As with Kant and Blumenbach, however, Bernard construes these ‘vital properties’ as coordinated processes directed toward the maintenance of the organism. This can be seen in his description of the ‘internal environment’ of an organism:

In living beings the internal environment, which is a true product of the organism, preserves the necessary relations of exchange and equilibrium with the external cosmic environment; but in proportion as the organism grows more perfect, the [internal] organic environment becomes specialized and more and more isolated, as it were, from the surrounding [external] environment. In vegetables and in cold-blooded animals [...] this isolation is less complete than in warm-blooded animals [...] But these differing conditions do not constitute difference of nature in different living beings; they are merely improvements in the isolating and protecting mechanisms of their environment. (Bernard [1865] 1957, 64)

The basic dispositions of organisms are coordinated activities necessary for continued survival of the whole organism in light of its needs and its environment.

Here are three examples of SMV. I discuss two further examples below. What is notable about these three is that each aims to provide a very different account of the philosophical basis for attributing this end to organisms: for Kant, this end is a regulative ideal whose reality is unknowable; for Blumenbach, a real but occult force¹²; for Bernard, a characteristic of the essential properties of life ultimately susceptible to physical–chemical explanation. The stark difference between these explanatory projects

¹¹When Nietzsche quotes with approval from Bernard (1876, 391) in his notebooks (1888 14[65]), he seems to be endorsing aspects of Bernard’s critique of vitalism.

¹²Schopenhauer (1854, 23–25) sits uneasily between the Kantian and the vitalist position.

underscores the basic agreement in describing the ends of organisms in terms of self- and species-maintenance. And this agreement helps us appreciate why Nietzsche would present his criticism of SMV as applying quite generally. It also helps us to see how Darwin's subtle departure from this description went unnoticed by Nietzsche.

So, we have a plausible answer to the first of our three questions: SMV is a received, descriptive account of the natural ends of organisms and their parts in terms of self- (and species-) maintenance. I turn now to the second question.

3. What is the basis for Nietzsche's criticism?

The question of Nietzsche's basis for criticizing SMV is more pressing now that we can appreciate the pervasiveness of that view. Prior scholarship has shown that Nietzsche likely mounted this challenge based on his reading, in the mid-1880s, radically divergent descriptions of the basic dispositions of organisms and their parts. Rather than review this scholarship in detail,¹³ I consider one example in particular whose influence on Nietzsche is relevant to the third question of this paper.

Shortly before writing BGE 13 and GS 349, Nietzsche read, annotated, and excerpted into his notebooks a work by the Anglo-German zoologist, William Henry Rolph. In *Biologische Probleme*, Rolph criticizes positing the 'drive for self-maintenance' to explain the basic ends of organisms:

the struggle of existence [der Daseinskampf] no longer takes place over existence, it is no struggle for self-maintenance [kein Kampf um Selbsterhaltung], no struggle for the 'acquisition [Erwerbung] of the indispensable needs of life,' but rather a struggle for increased acquisition [um Mehrerwerb]. (Rolph 1884, 97)

Rolph reaches this conclusion by analyzing observable behavior of simple lifeforms, beginning with nutrition. He argues that one finds these processes directed not at attaining the means of life in the face of adverse circumstances but at excessive consumption of external resources. This argument strongly resembles Nietzsche's in GS 349, and this characterization of the basic disposition of organisms in terms of increased acquisition rather than self-maintenance strongly resembles Nietzsche's in terms of expansion, growth, and power. It is probable that Rolph (along with others)¹⁴ provided Nietzsche an ostensibly credible basis for criticizing SMV and espousing his alternative, expressed in terms of WP.

¹³For a concise overview of these sources, see Emden (2014, 167–183).

¹⁴Rolph's alternative account of the basic disposition of organisms resembles others Nietzsche read. See esp. Drossbach's discussion of organic processes as 'development of power [Entfaltung der Kraft]' (1884, 44–48). Schmidt (1988) reviews the impact this had on Nietzsche.

But if Nietzsche's criticism of SMV was little more than an endorsement and recapitulation of one side in an ongoing debate over the description of the basic ends of organisms, then we might wonder what was at stake for Nietzsche in this debate.

Rolph's overall aim in *Biologische Probleme: zugleich als Versuch zur Entwicklung einer rationalen Ethik* provides a clue here. While Rolph presents the criticism above as directed against Darwinism, in fact it only applies to the older SMV. Moreover and as suggested by its subtitle, Rolph's ultimate target in the work is not Darwinism but Spencer's *The Data of Ethics*. Rolph hopes to outdo Spencer in deriving altruistic ethics from an account of the basic ends to which organisms are disposed. And while he broadly agrees with Spencer's ethical conclusions – more than does Nietzsche, anyway – he criticizes, and hopes to improve on, Spencer's biological derivation of them.¹⁵

Nietzsche's own prolonged interest in Spencer's *Data* suggests that this debate over SMV may have piqued his interest for its import on Spencer's naturalistic ethics. In the following section, I support and elaborate this suggestion.

4. Why does Nietzsche criticize SMV?

4.1. Spencer's conduct

In *Data*, Spencer describes organic function in terms of self-maintenance, derives from this description an account of human action also as directed toward what he calls 'the continuance of life,' and takes this account to supply a basis for building normative ethics. Given the psychological and evaluative implications Spencer draws from SMV, we can appreciate Nietzsche's interest in opposing that view.

The primary goal of *Data* is to provide a 'scientific' account of ethics grounded in a law-like description of human activity and the course of its historical development (the 'evolution of conduct'). Spencer emphasizes the pressing importance of such a task in an age, as Nietzsche would say, after the death of God:

Now that moral injunctions are losing the authority given by their supposed sacred origin, the secularization of morals is becoming imperative. Few things can happen more disastrous than the decay and death of a regulative system no longer fit, before another and fitter regulative system has grown up to replace it. ([1879] 1882, vi)

¹⁵Moore (2002, 46–55) offers a different take on Rolph's influence on Nietzsche, which I implicitly criticized in Section 2.1.

Spencer's naturalistic ethics aims to replace the role divine authority plays in underpinning the force of our moral obligations with some source of normativity to be located in or identified with human 'conduct.'¹⁶

Spencer begins by characterizing the basic structure of human motivation as directed toward the 'continuance of life.' Humans were selected to aim, and so can't help but aim, at the continuance of life in everything they do. The ubiquity of this aim, Spencer seems to think, establishes the normative value of continuing life. Then Spencer argues that behavior well suited to realizing the continuance of life is coextensive with a pleasurable life because we have evolved to experience what is conducive to life as pleasurable. This shuts down the only objection Spencer can imagine to his argument: ethical pessimism (à la Schopenhauer), according to which continuing life always turns out to involve more pain than pleasure and so not to be worthwhile.

It's not hard to see why Spencer's general project would interest Nietzsche. Nietzsche, too, sought to naturalize ethics by founding it upon basic motivational features of human psychology.¹⁷ In Nietzsche's case, the features in question are characterized as WP.¹⁸ And like Spencer's continuance of life, Nietzsche's WP is meant to capture something explanatorily basic about life, in particular more basic than hedonism.¹⁹ Finally, Nietzsche, too, sought to undermine the argumentative basis for ethical pessimism. Given these structural similarities between their projects, it makes sense that Nietzsche would be interested in their points of disagreement. And, as I now show, one of the founding assumptions for Spencer's moral psychology is his adoption of SMV.

Spencer begins his argument for the basic aim of all human activity with an analysis of the concept 'conduct' as a subset of 'action' (the latter being roughly organic activity): 'Conduct in its full acceptance must be taken as comprehending all adjustments of acts to ends' ([1879] 1882, 5). The distinction between conduct and mere action is scalar: the more complex the end-adjustment involved in the action the more the action is to count as conduct proper. And the resulting hierarchy of conduct is supposed to coincide with the course of evolution.

¹⁶This aim, however, is in tension with Spencer's later account of moral obligation as stemming from: (1) learned utility and (2) social pressure, each of which serve as stopgaps in (3) our inevitable moral evolution (Spencer [1879] 1882, 124–129). It's unclear why, on this view, the authority and origin of morality is a problem in need of a philosophical rather than a (temporary) political solution.

¹⁷See Hussain (2011), for an unsympathetic portrayal of this feature of Nietzsche's attempt to infer normativity from natural necessity. See Katsafanas (2013) for protracted and highly original defense of it.

¹⁸See A 2, 6; 1885 1[30]; 1885 2[88]; 1886 5[71]; 1887 10[145]; 1888 14[121].

¹⁹See A 2; 1888 14[70], 14[80], 14[81], 14[82], 14[174].

Spencer characterizes this hierarchy of conduct in terms of progressively more complex forms of adjustment to life's basic end, 'the continuance of life.' The minimal form of conduct (that of the least evolved organisms) is simply the *outward expression* of the end-adjustment already expressed by the *internal processes* of all organisms (i.e. organic function): Spencer defines organic function as 'the maintenance of life at large' ([1879] 1882, 9) and the minimal form of conduct as behavior securing 'a balance of the organic actions throughout far longer periods' (13). Spencer's argument begins, then, by assuming an account of organic function and minimal conduct precisely in terms of SMV.

The next form of conduct adds complexity:

The more multiplied and varied adjustments of acts to ends, by which the more developed creature from hour to hour fulfills more numerous requirements, severally add to the activities that are carried on abreast, and severally help to make greater the period through which such simultaneous activities endure. Each further evolution of conduct widens the aggregate of actions while conducting to elongation of it. (Spencer [1879] 1882, 14–15)

Conduct involves adjustment not just toward prolonging vital functions but toward elaborating them. He cites the dearth of activities in the oyster compared to the diversity of activities in the more evolved cuttlefish. At a still higher stage of evolution, Spencer locates a third form of conduct: 'adjustments which have for their final purpose the life of the species' rather than the prolongation and elaboration of the life of the individual (15). Here Spencer points to reproduction and parenting behavior in higher animals.

Spencer's final form of conduct ascribes an evolutionary basis to *altruism*. Spencer attributes to humans in particular the end of helping others to achieve their ends wherever doing so facilitates the achievement of the most overall ends – or greatest continuance of life in the prior three forms. Whereas the first three forms of conduct are supposed to be verifiable by comparing the behavior of higher to lower organisms, Spencer's argument for the fourth takes the form of a rational deduction from the first three. He, first, (erroneously) assumes that evolution is necessarily progressive; as species evolve, their facility for achieving the other three ends improves. Second, Spencer points out that this facility is limited by antagonistic interactions with other members of the species:

In large measure the adjustments of acts to ends which we have been considering, are components of that 'struggle for existence' carried on both between members of the same species and between members of different species; and, very generally, a successful adjustment made by one creature involves an unsuccessful adjustment made by another creature, either of the same kind or of a different kind. That the carnivore may live herbivores must die; and that

its young may be reared the young of weaker creatures must be orphaned. [...] Competition among members of the same species has allied, though less conspicuous, results. The stronger often carries off by force the prey which the weaker has caught. ([1879] 1882, 17–18)

So, it would seem to follow that evolution above this limit ‘can be reached by conduct only in permanently peaceful societies’ (18). But Spencer thinks this line of reasoning takes us one step further:

For beyond so behaving that each achieves his ends without preventing others from achieving their ends, the members of a society may give mutual help in the achievement of ends. And if [...] fellow citizens can make easier for one another the adjustments of acts to ends, then their conduct assumes a still higher phase of evolution; since whatever facilitates the making of adjustments by each, increases the totality of the adjustments made, and serves to render the lives of all more complete. (19)

Spencer’s argument here – specious though it is – is easy to misunderstand. He is not offering the familiar argument for altruism according to which each individual has self-interested reason to perform altruistic acts. Rather he is arguing that evolutionary forces supposedly at work in perfecting species over time will have the effect of producing a future species (the fully civilized European) in which all obstacles to the maximal achievement of their ends have been removed. And he claims that this can only be done through the evolution of a natural motivation toward altruistic acts.

Spencer thus offers SMV, a view to which Nietzsche objects, as a basis for deriving a psychological view to which Nietzsche also objects²⁰: through the process of evolution that disposition serving as the basis for all conduct (i.e. self-maintenance) will evolve into an effective motivation for altruistic acts. And this altruistic motivation serves in turn as a ground for normative ethics, of a sort to which Nietzsche objects vociferously.

These observations suggest an answer to the interpretive question raised above: given Nietzsche’s clear interest in offering a reevaluation of values that turns over our estimation of the value of altruism and to do so on the basis of an account of human motivation in terms of WP, it makes sense that he would seek to undermine the biological basis Spencer purports to find for his competing moral psychology. In this way, he can be seen to use Rolph’s biology to go even further than Rolph in undermining Spencer.

GM II.12 supports this reading. There Nietzsche presents WP as a corrective to contemporary ‘physiology’ which places “‘adjustment [*Anpassung*]” in the foreground,’ citing Spencer by name for his spurious definition of life

²⁰See GS 349; GM III.7.

‘as an ever-more-end-directed inner adjustment to outer circumstances [als eine immer zweckmässiger innere Anpassung an äussere Umstände].²¹ So, clearly when Nietzsche targets SMV for criticism, he has in mind, at least, Spencer’s account of the basic ends of organisms.

This reading finds further support by comparing Spencer’s argument in *Data* to Schopenhauer’s in *The World as Will and Representation* (WWR). Since the strategy of undermining Spencer I just described applies as well to Schopenhauer, this lends further credence to attributing that strategy to Nietzsche.

4.2. Schopenhauer’s Will to Life

In WWR, Schopenhauer employs an argument isomorphic to Spencer’s: organic function, for Schopenhauer, is one stage or ‘grade’ of what he calls ‘objectification of the will.’ Schopenhauer argues that the character of organic function is directedness toward self- and species-maintenance, and, like Spencer, he extends this conventional description of organic function to explain the basic character of human motivation and action. And, also like Spencer, he employs this psychological account to derive one of moral obligation. I consider each of these steps in turn.

First, Schopenhauer famously argues that the world *in itself* has the character of what he calls ‘will.’ On the one hand, he agrees with Kant’s basic epistemology – that the world as it is given to us (in Schopenhauer’s words, ‘the world as represented’) is spatially and temporally differentiated by the human mind (the ‘*principium individuationis*’) and represented as causally ordered. But, on the other hand, he departs from Kant by attributing a special mode of access to the true nature of the world in itself whereby it is ‘directly’ given, or ‘immediately known,’ (rather than represented) as one, undifferentiated will (WWR I:100).²²

²¹Nietzsche’s point in GM II.12 has been obscured by its English translations. First, while commonly translated as ‘adaptation’ in Nietzsche, *Anpassung* serves to translate Spencer’s ‘adjustment’ in the German translation of *Data* Nietzsche read. Second, Nietzsche’s reference to Spencer’s definition of life paraphrases the following: ‘the continuous adjustment of internal relations to external relations’ (Spencer [1879] 1882, 19); rendered in German, ‘die fortwährende Anpassung innerer an äussere Relationen’ ([1879] 1894, 21). Nietzsche’s use of *zweckmässig* to modify *Anpassung* in his paraphrase probably stems from Rolph, who was bilingual and likely read Spencer in the original English. In describing Spencer’s view, Rolph idiosyncratically uses *Zweckmässigkeit* to refer to conduct’s property of being better or worse adjusted to life’s ends (Rolph 1884, e.g. 33). And so, third, Nietzsche’s sense of *zweckmässig* (as *end-adjusted*) should be distinguished from the sense used by Spencer’s German translators to render, ‘Expediency-Morality’ (*Zweckmässigkeit-Ethik*) – a term Spencer uses pejoratively to describe J.S. Mill’s version of Utilitarianism (Spencer [1879] 1882, 58, [1879] 1894, 63).

²²References to WWR refer to Schopenhauer ([1844] 1958–69). Translations have been modified.

The real character of the will in itself is, for Schopenhauer, *incessant striving without aim*. But the will as it appears to us is *differentiated* and *purposive*. The will's modes of appearing to us are what Schopenhauer calls *objectifications* of the will. These objectifications are extensionally differentiated tokens of discrete types, and these types are individuated in accordance with their purposive character. My hunger appears to me extensionally different from your hunger, but they both appear different in character from the force of gravity; gravity aims at, so to speak, pulling bodies together, whereas hunger aims at the act of eating food. Schopenhauer calls most of these types 'forces' (*Kräfte*) and distributes them into a hierarchy, which he calls 'grades of objectification,' in accordance with the scope of their aim.

Schopenhauer describes the purposive character of those forces exhibited by the internal processes of an organism – chiefly, 'vital force' (*Lebenskraft*) – as

a concurrence [Uebereinstimmung] of all the parts of an individual organism so ordered that the maintenance [die Erhaltung] of the individual and of its species results therefrom, and thus presents itself as the purpose of that arrangement. (WWR I:154)

In other words, these forces are ordered and operate for the sake of the self-maintenance of the whole organism and its species through reproduction.²³ This, again, is SMV.

Schopenhauer further takes organic function to reveal the true aim of the will throughout all its appearances (all grades of objectification) in the organic realm. He calls this general character of the will in organisms the 'will to life' (*Wille zum Leben*): 'from the grade of organic life upwards, [nature] has only *one* purpose, namely that of *maintaining all the species*' (WWR II:351). Explicitly included among these grades are those appearances of the will in animal and human motivation.

Schopenhauer argues that this will to life describes the character of animal and human motivation by, first, elucidating the apparent pointlessness and complexity of animal behavior and, then, arguing that attributing to animals the aims of self- and species-maintenance allows us to make sense of this behavior. He gives the following, colorful example:

Consider, e.g. the mole, that restless worker. Digging strenuously with its enormous shovel-paws – is the business of its whole life; permanent night surrounds it; it has its embryo eyes merely in order to flee the light [...] But what does it attain by this course of life, full of trouble and devoid of pleasure? Feed and copulation [Futter und Begattung]: thus, only the means to continue, and to begin again in the new individual, the same sorry course. (WWR II:353–4)

²³Schopenhauer (1854, WWR II:245–68) cites contemporary physiology and medicine in support of his claim.

Schopenhauer argues that animals are at base motivated only by the will to life, and he calls the most basic motivational element explaining the appearance of the will to life in animal behavior ‘instinct’ (*Instinkt*) – a motivational state directed toward ends but not guided by representational attitudes (*Vorstellung, Erkenntniß*).²⁴

Schopenhauer also attributes to animals and humans a distinct motivational element, ‘motive’ (*Motiv*), which, unlike instinct, is guided by representational attitudes. Motives, however, simply dress up the same instinctual purposes identified with the will to life. Often, the dressing-up that motives perform serves merely as a ‘delusion’ (*Wahn*), tricking us into thinking we’re pursuing some valuable end when in fact all we are doing is blindly striving to keep ourselves alive and to reproduce. Consider a morose example of such delusion:

[W]e often see a miserable figure, deformed and bent with age, lack, and illness, appeal to us from the bottom of his heart for help for the prolongation of an existence, whose end would necessarily appear as altogether desirable, if it were an objective judgment that was the determining factor. Therefore, instead of this, it is the blind will emerging as life-drive, lust for life, the courage to face life [als Lebenstrieb, Lebenslust, Lebensmuth]; it is the same thing that makes the plant grow. (WWR II:359)

Like Spencer, therefore, Schopenhauer espouses SMV and derives from it an account of the basic ends of human action. Moreover, in WWR (I:367–78) and, again, in *On the Basis of Morals*, Schopenhauer, also like Spencer, seeks to derive an account of moral obligation from this psychological picture.

Schopenhauer’s derivation of moral obligation in *Morals* proceeds in two parts: first he motivates a philosophical puzzle regarding the possibility of moral action, and then he proposes a resolution of this puzzle. The puzzle stems from four premises. First, Schopenhauer espouses a form of psychological egoism:

The chief and fundamental incentive in a human being, as in an animal, is *egoism*, i.e. the urge to existence and well-being. [...] So all his actions, as a rule, spring from egoism and the explanation of any given action is always to be sought in it first of all. ([1841] 2009, 196)

This claim follows, as Schopenhauer here only alludes (198), from the analysis of will to life offered in WWR. Second, he assumes that genuine moral action must not be egoistic but rather motivated solely out of concern for the ‘well-being and woe’ of another (203–207). And since he also holds, third, that moral obligation can only be grounded in real motivational forces (195) and, fourth, that one cannot validly derive genuine altruistic

²⁴For an insightful discussion of the historical emergence of this conception of instinct, see Katsafanas (Forthcoming).

motivations from egoistic grounds (113, 117–118, 190–191), genuine moral action appears to be impossible. But Schopenhauer thinks that this conclusion cannot be sound since instances of genuine altruism abound (191).

So, the question is how I can be genuinely motivated by the well-being and woe of another given that I am only capable of being motivated by my own. Schopenhauer answers that this is only possible insofar as

I will *his* well-being and do not will *his* woe, and that I do so quite immediately, as immediately as I otherwise do only *my own*. But this presupposes necessarily that in the case of *his* woe as such I directly suffer along with him, feel *his* woe as otherwise I feel only mine, and so will his well-being immediately as otherwise I will only mine. But this requires that I *be identified with him* in some way [...]. But now, since I am not lodged *in the skin* of the other, it is solely by means of the *cognition* that I have of him, i.e. the representation of him in my head, that I can identify with him to such an extent that my deed proclaims that distinction to be removed. [... This] is the everyday phenomenon of *compassion* [*Mitleid*]. ([1841] 2009, 208)

In short, if (and only if) I am able to identify myself with another can I feel their pain and suffering as my own – as I do when I feel compassion – and so be moved by their condition to act for their sake. Thereby alone does my action acquire moral worth.

How is compassion, so described, possible? Schopenhauer repeatedly stresses, in *Morals*, that this is empirically ‘mysterious’ and only to be resolved through ‘metaphysical speculation’ ([1841] 2009, 209, 227–230). Since *Morals* was originally to be published anonymously, he avoided directly appealing to WWR. But he ends *Morals* with a summary of the relevant points: first, he recounts his Kantian view that what distinguishes one individual from another are merely formal conditions of experience (i.e. space and time), which have no reality. And, second, he argues that it is possible, by means of a special form of *immediate* knowledge, for one to pierce through such appearances toward the true unity of all things, thereby, ‘immediately recognizing himself, his own true essence, in the *other*’ (266–273).

Notice that this explanation reveals compassion to be a modification of the *direction* of will to life – in light of the purportedly *true* recognition of the identity of *self* and *other* – rather than a distinct *source* of motivation. In this way, Schopenhauer, like Spencer, aims to derive moral motivation ultimately from the received view of the basic ends of organisms (SMV). Where Spencer’s derivation invokes an evolutionary process, Schopenhauer’s invokes a mystical recognition of the unity of all things. And while both derivations might be described as explaining moral obligation in terms of *enlightened* self-interest, in neither case are moral acts merely *instrumental* to self-interest. For both Spencer and Schopenhauer, moral actions are characteristically motivated out of genuine interest in others’ welfare; it’s

just that the causal etiology of these motives ultimately originates in the disposition to self-maintenance essential to life.²⁵

Given Nietzsche's opposition to these altruistic ethics, and indeed his suspicion of the altruistic status of acts of compassion, it's plausible that Nietzsche targeted SMV so as to undermine these moral-psychological accounts. And, if this is correct, then it suggests that Nietzsche's interest in offering WP as a theory of life stems from his concern to defend the psychological and evaluative positions he more clearly espouses and more clearly argues for.

5. Conclusion

I have argued that Nietzsche's critical target in passages where he offers WP as a replacement for the drive to self-maintenance is a broad, commonplace description of the basic dispositions of organisms and their parts. Nietzsche bases these criticisms on some of the (now obscure) biology of his day. That the 'physiology' Nietzsche proffers is not original to him, however, suggests that his purpose in criticizing SMV lies elsewhere than a mere correction of biological fact. I have suggested that his purpose is specifically to undermine the supposed biological basis for the moral psychologies of Spencer and Schopenhauer. That these moral psychologies stand in striking opposition to Nietzsche's is widely appreciated. And so, it seems likely that Nietzsche marshaled the radical biology he read for the purpose of pulling the rug out from under them.

To what extent, however, does Nietzsche aim not only to criticize Spencer and Schopenhauer's basis for deriving their moral psychologies, but also to emulate their derivations of such from an alternative to SMV expressed in terms of WP? It is likely that Nietzsche's thoughts on moral obligation are influenced by Spencer and Schopenhauer in many ways. But it seems unlikely to me that Nietzsche sought simply to emulate their derivations as I have summarized them. I cannot explore the issue in detail here, but I close by considering four points in support of this suggestion.

First of all, Spencer's and Schopenhauer's derivations are motivated out of a problem of little interest to Nietzsche: namely, how to explain the

²⁵Chris Janaway and Mark Migotti raise concerns with attributing to Schopenhauer the aim of grounding moral obligation in the will to life. In particular, Janaway points to the above-cited passages in *Morals* where Schopenhauer repeatedly emphasizes that (1) genuine moral obligation cannot be grounded in egoistic motivation and that, since psychological egoism is true, (2) the motivational basis for altruistic acts (compassion) is *wholly mysterious* from the psychological point of view. I have attempted to show, however, that (1) and (2) are compatible with Schopenhauer's claim that the will to life is the causal force behind altruistic acts. One should distinguish two strategies for deriving the possibility of altruistic action from 'egoistic' motivations: the first is to show how altruism instrumentally serves self-interest, and the second is to show how the causal principle behind psychological egoism can be directed toward altruistic ends. While Schopenhauer castigates the former strategy, he (like Spencer) pursues the latter.

possibility of, and obligation to, altruistic acts given the truth of psychological egoism. Second, these derivations seem to fail at the task of grounding moral *obligation*. Both Spencer and Schopenhauer think that altruistic acts are, in a way, *necessary* once their causal basis is firmly established (for Spencer, through human evolution; for Schopenhauer, through a kind of active recognition that all are one). But in neither case does this causal necessity seem to provide the moral agent with compelling practical reason. It seems perfectly coherent for the 'evolved' human to envy his more self-interested predecessors, or for the Schopenhauerian to despair over her compassion just as the Apostle Paul over his 'sinful flesh.'

This last observation might lead to the following objection to the main argument of this paper, however: if Nietzsche recognized the failure of Spencer and Schopenhauer to ground morality in an account of the basic dispositions of organisms, then why did he bother to offer arguments against them in the form of a denial of SMV? Alternatively, if he *failed* to recognize the flaws in these accounts, why should we suppose he did not seek to emulate them by proposing an analogous view of organisms on which to base his moral psychology?²⁶

My response brings me to my final points: third, Spencer and Schopenhauer attempt to show the necessity, under certain conditions, and normativity of behavior Nietzsche *denies* – wholly other-regarding acts of compassion. He disagrees, then, not only with their evaluative conclusions but also with their descriptive psychology. So, even if he recognized the failure of their evaluative projects, he still had reason to argue against the basis of their descriptive psychology. Fourth, Nietzsche's psychological descriptions of, for example, compassion are offered on the basis of subtle psychological observation and analysis. It hardly seems plausible, then, that Nietzsche saw the radical description of natural ends offered by Rolph and others as grounding rather than simply dovetailing with his moral psychology. And so, I suggest that Nietzsche offers WP as a theory of life primarily for the purpose of defending his moral psychology against competing accounts that claimed a purely biological basis.

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²⁶I owe this objection, and more besides, to Bernard Reginster.

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