

**IN THE BELLY OF THE (BLOND) BEAST:
NIETZSCHE'S DIETETIC CRITIQUE OF PHILOSOPHY**

by

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Abstract

Nietzsche's account of "life" and his deployment of the language of digestion and diet tend to receive little attention from contemporary philosophical commentators. Yet, he invoked both "life" and dietary-digestive language explicitly and frequently. A particular understanding of life came to prominence in Nietzsche's writings of the 1880s, which coincided with his intensive reading of physiology and honing of the critical project of reevaluating values. This thesis will seek to demonstrate the relevance of the dietary and digestive language that Nietzsche used in his critique of truth for life, and situate it amongst his reading of physiological literature. Nietzsche drew from the work of nineteenth-century physiologists like Michael Foster, Wilhelm Roux, and William Rolph for his understanding of healthy life. These theories, particularly in their focus on the behavior of protoplasm, privileged the ideas of assimilation and digestion in their conceptions of life.

Digestion and diet provide Nietzsche with a vocabulary with which to criticize philosophy and outline the possibility of a healthier form of philosophy that would better serve what he, along with many of his peers, saw as a degenerating modern humanity. His engagement with nineteenth-century physiology and concerns about degeneration place Nietzsche firmly in the intellectual context of his day, rendering his critique of truth an "untimely" project executed with the use of "timely" resources. The methodological framework informing the approach on offer here is indebted to Science Studies, and the meta-argument of this paper is that if we wish to understand Nietzsche's critique of truth in his own terms, we cannot afford to ignore the language in which he articulated it.

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Auf der anderen Seite darf nun freilich nicht übersehen werden, dass zum Ganzen des menschlichen Lebens auch das biologische menschliche Leben mitgehört, und dass darum der Mensch niemals ein Engel oder reiner Geist werden kann, selbst wenn er zum "Übermenschen" werden könnte. Biologisch wurde auch der "Übermensch" immer noch Tier bleiben, wie biologisch der Mensch selber immer noch Tier bleibt.

Bruno Bauch

FOR PROFESSOR DR. AUGUSTUS MAGENSCHMERZ

Chapter 1: Introduction

“The will to truth requires a critique – let us then define our own task – the value of truth is for once to be experimentally *called into question*” (GM III, §24).

“To what extent can truth stand to be incorporated? – that is the question; that is the experiment” (GS §110).

Nietzsche’s account of power (*Macht*) rarely fails to attract the attention of contemporary Nietzsche scholars, but it was his notion of life (*Leben*) that many of his early interpreters took to be his major contribution to philosophy. Although his biologically-laden vocabulary and his notion of life are receiving more attention from certain scholars in the English-speaking world,¹ the emphasis on *Macht* among Nietzsche scholars in recent past renders strange to our ears the title of Max Scheler’s 1916 piece: “Versuche einer Philosophie des Lebens. Nietzsche–Dilthey–Bergson” (Scheler 1955). But the concept of life is a crucial element in Nietzsche’s revaluation of values, as he came to understand the project in the 1880s. The importance of “life” in Nietzsche’s works is not obvious from works written prior to 1882; it is in the work of the late 1880s that the vocabulary of life and health achieve a place of prominence. This is in part because, around 1881, Nietzsche’s reading of physiological and biological texts increased considerably, and also in part because by the middle of the 1880s, he had a better idea of what a critical revaluation of values must entail. In regarding his biological and physiological language as unworthy of consideration, Nietzsche’s commentators fail to do justice to the intricacies and development of his critical project.

By 1886, Nietzsche was calling, in his published works, for a critique of values. In *Beyond Good and Evil*, *The Genealogy of Morality*, and *The Gay Science* he calls for a critical eye to be turned towards the meanings, historical pedigrees, conditions of possibility, and future

¹ Cf. Moore 2002, Brobjer 2004, 2008, Lemm 2009.

ramifications of moral values. In each of these texts Nietzsche uses the language of digestion and dietary health to judge values against a standard of “life.” The question of the value of truth, as we learn in the *Genealogy*, places us on moral ground the same as if we were considering the value of self-sacrifice or piety (GM III, §24). In the pages to follow, I will focus on the value of ascetic truth as a piece in the larger critique of values and argue that such language is particularly important for his assessment of the value of truth: he uses healthy digestion as a touchstone for critiquing the value of truth and its standard bearer, ascetic philosophy. In doing so, Nietzsche borrows from and aligns his critique with the scientific researches and cultural resources of nineteenth-century scientific physiology.

In the *Genealogy of Morality* Nietzsche poses the critical question as, “*what value do they themselves [moral judgments] have?*” (GM, Preface §3). This question takes aim at several entangled targets: Christian morality, correspondence theories of truth, and the idea that life can be evaluated according to moral values. The answer cannot come solely from investigations of specific moral judgments; it requires a questioning of moral judgment in general. Such an evaluation demands that one occupy a particular evaluative standpoint from which judgment may be passed and, as Nietzsche is well aware, “thoughts about moral prejudices, if they are not to be prejudices about prejudices, presuppose a position outside morality” (GS §380). A critique of morality requires an evaluative position outside of morality, and neither relativism nor nihilism is a viable option. It is clear that Nietzsche is no naive relativist: his condemnations and endorsements of particular values and ways of life presume that there is some validity to his particular perspective that allows him to pass such judgments. As most students of philosophy discover in their first year, to claim that one is a relativist regarding some particular topic, then to subsequently pass authoritative judgment on that topic is to invite charges of hypocrisy and contradiction. As for the nihilist, according to Nietzsche, he is just a Christian martyr dressed in a

pessimist's garb. So-called nihilists – amongst whom he counts Schopenhauer – merely substitute the (moral) values of martyrdom for other moral values, and thereby fail to question the value of morality as a whole (GS §346). To critique the value of morality one must take up an evaluative position from which one can pose the question: what worth do moral values possess? The difficulty lies in taking up a position that does not undermine itself by supposing the very morals it means to critique. Nietzsche needs to occupy an evaluative stance that is normative but non-moral.

What evaluative standpoint could serve that does not assume the false conscience of nihilism, the contradictory standpoint of morality, or the impotence of relativism?² Nietzsche's answer to this question, as I will argue in what follows, is the standard of health. Nietzsche treats health as the measure of "life." "Life" is the amoral, anti-nihilistic standard according to which all other values may be judged; health is simply the degree to which one lives a vigorous life. Philosophers like Schopenhauer were wrong, Nietzsche argues, to think that they could appraise the value of life. It makes no sense "to raise the problem of the *value* of life," he argues, because to do so one would need to stand "outside of life" and yet "be as familiar with life as someone, anyone, everyone who has ever lived: this is enough to tell us that the problem is inaccessible to us" (TW 174). Nietzsche holds that the value of life is unquestionable for us: the fact that we cannot step outside of life in order to judge it allows it to serve as an Archimedean point from which to leverage a critique of moral values in general. Heretofore, Western philosophy has presumed to ask, "what is the value (or meaning) of life?" and to use moral concepts such as truth to come to its answers. Nietzsche holds that what they ought to be asking is "What is the value of x for life?" Health is the metric that he proposes we use to determine the value of "x"

² It seems that the answer is not obvious. Yields from a *Google Scholar* search of "Nietzsche" and "relativism" suggest that scholars are undecided whether Nietzsche was "a voice of relativism," an advocate of "consistent relativism," or "beyond relativism" (accessed July 13, 2011).

for life. In his works from the late 1880s, health and life are used interchangeably with the will to power; section 349 of *The Gay Science* tells us that “the will to power, [...] is simply the will to life.” An implication of the present thesis is that the will to power is, at its root, a naturalistic idea based on the scientifically-informed ways that Nietzsche understood life and health.

Health serves as a standard that is normative and non-normalizing. This point will be elaborated upon in the second chapter, but, briefly, it means that his account of health allows him to avoid drawing relativistic or universalizing conclusions from his critique of values. Health, understood as a capacity for greater life, allows Nietzsche to judge certain individuals – like ascetic philosophers – as less healthy than others because they do not live their life to the full extent of which they are capable. Yet, his idea of health also allows Nietzsche to hold that there is no single way to be healthy that applies to everyone; the extent to which one is even capable of being healthy will differ amongst individual constitutions, and everyone expresses their own health to some extent. His critique of values, including the value of truth, will apply differently along a spectrum of individual capacities for life; the conclusions Nietzsche reaches with respect to the free spirit do not necessarily hold for the member of the herd whose health will be of a lesser caliber than the free spirit’s “*grosse Gesundheit*.”

Nietzsche’s notion of health plays an argumentative role in his critique of values, but it also plays a role in his rhetorical strategies, in especially poignant ways in his critique of ascetic truth. Here, health does more than simply serve as an evaluative standard; the very vocabulary of bodily health undermines traditional philosophical narratives and personas. Nietzsche relies especially upon the prescriptive language of digestive health and dietetics to criticize a widespread story, which sees the body and all things corporeal as being subordinated to the value of philosophical truth. This kind of account of the value of truth entails two possible philosophical personas: one who forgets the needs of his own body in his all-consuming quest for

truth – see Steven Shapin’s rendition of the story of Isaac Newton forgetting to eat his chicken (Shapin 1998) – and another who submits his body to the demands of his intellect by embracing some form of asceticism. Both of these personas – he who disregards his body and he who forces it into submission – portray the philosopher as one who values truth more than his own bodily health. In his paper on dietetics and the history of philosophy, Shapin argues that these common portrayals of philosophers gave rise to the idea that philosophers have different constitutions from other people (Shapin 1998). In Nietzsche’s hands this well-entrenched notion is reinterpreted so as to critique the ascetic philosophical persona. He acknowledges that, historically the philosopher as possessing a unique physiology, but claims that it, far from being worthy of praise, has been a morbid one. Nietzsche employs the language of digestive and dietary health to re-evaluate the philosopher’s devotion to truth against the standards of life and bodily flourishing. His reading of Arthur Schopenhauer occupies a crucial place in this genealogical critique of truth.

Employing the rubric of health, as the ability to live a vigorous life, Nietzsche’s critique diagnoses ascetic philosophers like Schopenhauer as sick.³ He considers Schopenhauer’s Eastern-inspired pessimism to take an evaluative stance towards life: Schopenhauer reflected upon the value of life and found it lacking according to ideal standards of truth and beauty. This evaluation, Nietzsche believes, stems from the desperate need of a weak nature to interpret the

³ Nietzsche’s use of the resources of physiology may have been inspired by Schopenhauer’s own claims to an “objective” philosophy that relied upon the findings of French psychologists like Marie François Bichat and Pierre Jean Cabanis. Paul Janet quotes Schopenhauer describing how the former sought to distance himself from the “subjective” tradition of Kant and Fichte, and ally his own work with that of (French) experimental psychology, “Il y a deux manières essentiellement différentes de considérer l’intelligence: l’une subjective, partant du dedans prenant la conscience comme quelque chose de donné;... Cette méthode, dont Locke est le créateur, a été portée par Kant à la plus haute perfection. Mais il est une autre méthode objective, qui part du dehors et qui prend pour objet, non pas l’expérience interne, mais les êtres donnés dans l’expérience externe, et qui recherché quell rapport l’intelligence, dans ces êtres, peut avoir avec leurs autres propriétés... C’est la méthode empirique qui accepte comme donnés le monde extérieur et les animaux qui y sont contenus. Cette méthode est zoologique, anatomique, physiologique... Nous en devons les premiers fondemens aux zootomistes et aux physiologistes, notamment aux Français. Ici, surtout, il faut nommer Cabanis, dont l’excellent ouvrage sur les *Rapports du physique et du moral* a ouvert la voie (bahnhreehend), dans cette direction. Après lui, il fait nommer Bichat dont le point de vue est encore plus étendu. Il ne faut pas meme oublier Ball, quoique son objet principal ait été manqué” (Janet 1880, 36).

world in a way that renders it palatable to him. Considered as an expression of an individual's physiology, Schopenhauer's philosophy shows that devotion to the ascetic ideal culminates in a pessimism that denies the value of life and evinces a world-weary sickness. On this account, the ascetic ideal is at once a marker of sickness and a means of coping with being ill. Nietzsche frequently describes this illness in terms of gastrointestinal affliction. This is because he really takes it to be the case that the way we think is an expression of, and oftentimes, consequence of our physical constitution. In the *Genealogy*, he tells us that:

a strong and well-formed human digests his experiences (deeds, misdeeds included) as he digests his meals, even when he has hard bites to swallow. If a person "cannot cope" with experience, *this kind of "indigestion" is just as physiological as that other one—and in many cases in fact only one of the consequences of that other.*— (GM III, §16; emphasis mine).

Ascetic philosophy is an expression of philosophers' inability to cope with the world as it presents itself: irrational, godless, and meaningless, and the reason why they cannot do so is their sickly physiological constitution. Faith in ideal values helps them deal with the harsh realities and annoyances that populate mortal life. Schopenhauer's pessimism is symptomatic of one who, because of his physical condition, could not face a "de-deified" world and could only bear existence once it had been filtered through the evaluative lenses of truth and beauty. As the above quotation shows, Nietzsche's use of the language of digestion and health does more than serve just rhetorical purposes; it plays a crucial role in his naturalistic critique of ascetic truth. He judges faith in ascetic truth on physiological grounds, rejects it as sickness and anesthetic, and calls for healthy philosophers who possess stomachs strong enough to incorporate experience without the aid of ideals.

Some scholars have rejected Nietzsche's views on digestion and diet as mere "cranky reflections" (Williams 2001, xi) – embarrassing and philosophically uninteresting. In his

introduction to *The Gay Science*, Bernard Williams urges the reader to take Nietzsche's comments on diet and climate as "shallow and embarrassing" biographical anecdotes (*ibid*). In her study of Nietzsche's dietary habits, Lesley Chamberlain claims that Nietzsche became "less wise" the closer he got to the idea of food as medicine (Chamberlain 1996, 15). The reasons why we ought to disregard Nietzsche's invocations of digestive language is unclear. By turning a blind eye towards Nietzsche's repeated and emphatic use of such language, these interpreters run the risk of not understanding Nietzsche in his own terms (and why would we want to understand him in someone else's?). Contra Chamberlain and Williams, I contend that if we are willing to engage the digestive language in Nietzsche's work, we can extract an account of the value of truth that makes sense of his critique of values in terms that Nietzsche himself employs.

There are good reasons to attend to Nietzsche's use of digestive language. He acquired considerable knowledge of contemporary physiology by reading the work of Wilhelm Roux, William Rolph, Michael Foster, and others, and he used this knowledge in his critique of values. By examining how Nietzsche relates the value of truth to the state of one's stomach, against the backdrop of nineteenth-century physiology, we come to understand his critique of values as a project legitimized, in part, by his reading of natural science.⁴ Nietzsche's own experiences as a philosopher with a sensitive gastrointestinal tract provide further reason to attend to the dietary language in his work; he knew all too well the influence the digestive system can have on the mind's ability to philosophize.

In what follows I will go some way towards explicating the interpretation sketched in the preceding paragraphs. Chapter Two will begin by examining some of the key textual references to diet and digestion with respect to the value of truth; it will endeavor to show how Nietzsche

⁴ Regarding Nietzsche's reading of physiology, Bettina Wahrig-Schmidt notes several ways in which Nietzsche uses physiology: in an intentionally rhetorical manner, as support for his own arguments, and as an alternative approach to the problems of epistemology and aesthetics (Wahrig-Schmidt 1988, 438).

was able to use health as a standard for the critique of values in a way that avoided the universal conclusions of moral judgments and the self-refuting conclusions of relativism. We will see how, as a standard for critical judgment, the language of healthy digestion functions as a powerful argumentative tool. Chapter Three will seek to further draw out some of the rhetorical power of this language by grounding it in some of the scientific and medical literature with which he was familiar. I will indicate how, because of the place physiology occupied in late nineteenth-century Europe, Nietzsche's use of such language would have resonated in the scientific imagination of his time. Physiological thinking and physiological models of the human being permeated German culture in the decades prior to the turn of the twentieth century, and Nietzsche drew upon and exploited these resonances in his critique of philosophical truth. I will conclude with some remarks on how the approach taken here yields an account of Nietzsche's critique of truth that differs substantially from many other histories of philosophy, and speculate on the methodological import of these discrepancies.

Chapter 2: Critiquing the Value of Truth for Life

2.1 Philosophical Sickness unto Death

“A psychologist knows few questions as attractive as that concerning the relation between health (*Gesundheit*) and philosophy...” (GS §2).

Nietzsche begins his critique of truth by diagnosing philosophy as sickness. He suggests that “perhaps sick thinkers are in the majority in the history of philosophy” (GS §2), and proceeds to give a genealogy of infirmity in which Plato, Socrates, and Schopenhauer figure prominently. Nietzsche identifies each of these thinkers' unwavering devotion to truth as symptomatic of a sickness that has plagued Western philosophy since its conception. He understands philosophy to be an expression of a particularly morbid constitution that, rather than face life's “plain, harsh, ugly, unpleasant, unchristian, immoral truths” (GM I, §1), tends to interpret them in terms of ascetic ideals. Nietzsche's genealogy of philosophical sickness constitutes one part of his critical project: the diagnostic aspect. The second part, the evaluative aspect, accounts for the value of truth in terms of life and health. Coming to terms with the evaluative aspect will require that we look more closely at Nietzsche's conception of health and will be left to the second half of this chapter. The first half will cover Nietzsche's diagnosis of philosophy and try to come to grips with what, precisely, he thinks philosophers have gotten wrong regarding the value of truth.

The caricature of the philosopher as one for whom the body is of little importance goes back at least as far as Aristophanes' portrayal of Socrates as a man with his head in the clouds. Stories about the philosopher as possessing with either a uniquely undemanding or an exceptionally disciplined body enjoy a long and venerable tradition in the history of philosophy. In such stories having a different kind of body or a singular relation to one's body is associated with having privileged access to truth. Whether he is portrayed as an absent-minded ponderer or

an enthusiastic ascetic the philosopher ends up, on both of these accounts, placing the value of truth before the value of bodily health.⁵ Steven Shapin gives an account of this tradition in his article “The Philosopher and the Chicken,” which examines how philosophical personas are constructed around dietary habits. Shapin traces the lineage of the idea that philosophers have privileged access to truth in virtue of having a different kind of body through Greek, early modern, and modern traditions (Shapin 1998). His article ends with Nietzsche. This is because Nietzsche’s account of the sickness of philosophy problematizes the history of philosophers as special bodies with special access to truth. Rather than a history of privileged bodies, Nietzsche portrays the history of the philosophy as a genealogy of sickness; he mobilizes the language of health to question the philosopher’s commitment to truth over the body.

Nietzsche’s interpretations of Plato and Socrates are vital for his genealogy of philosophical sickness. In *Twilight of the Idols*, Nietzsche construes Plato’s idealism as a consequent of his (Plato’s) inability to face reality: “*courage* in face of reality ultimately distinguishes such natures as Thucydides and Plato: Plato is a coward in face of reality – *consequently* he escapes into the ideal...” (TW 226). On Nietzsche’s reading, Plato’s idealist conception of truth is symptomatic of a weak and cowardly nature. In placing ideal truth at the core of his philosophy, Plato makes clear the extent to which he cannot handle, and therefore must reject, life, while leaning upon otherworldly ideals. Similarly, in *Twilight*, Nietzsche declares Socrates to be “anti-life” (GS §340; TW 12, 162). Socrates willingly ingested hemlock as a way to escape the world of embodied suffering: a sure sign that he was “sick for a long time” (TW, 166). Nietzsche depicts the final moments of Socrates’ life as uncharacteristic of his otherwise sanguine existence – drinking, taking a wife, lusting after young men, etc. In regarding

⁵ In the case of the ascetic, the well-being of the body is an effect of truth: discipline brings truth. Any health effects that may attend enlightenment are, at best, bonuses. A striking contrast may be drawn with the credos of many Vancouver yoga practitioners, who believe that blessedness comes from toning one’s glutes.

death as a cure, Socrates denies not only his own body, but also the idea that life is of any value.⁶ Nietzsche's reading of Socrates' death is far from radical; it echoes long-standing myths that depict the philosopher as one who is physiologically predisposed to value truth over life. In portraying Socrates as embracing death Nietzsche is not far off the orthodox story. The heterodoxy of his story stems from his re-valuation of the philosopher's physiology. On Nietzsche's account, Socrates is not *exceptional* because he values truth over life – while he may be exceptional in other respects – it is precisely because of his ascetic values that Socrates should be seen as sick and undeserving of praise.

Nietzsche's genealogical diagnosis of philosophy depends upon the idea that philosophers express their physiologies in their philosophical work: "oh, how quickly we guess how someone has come to his ideas; whether seated before the inkwell, stomach clenched...cramped intestines betray themselves" (GS §366).⁷ He does not, however, make a sharp distinction between psychology and physiology. The psychological should be understood in terms of the physiological, to claim this is so isn't to commit to some kind of reductionism – Nietzsche thinks that one can hold his position while still being the "strictest opponent of materialism" (GM III §16) –, but it is to say that intellectual works are products of particular bodies.⁸ According to this picture, philosophers project the contours of their own individual physiologies onto the world and erect a philosophical system around that projection: "all those bold lunacies of metaphysics, especially answers to the question about the *value* of existence, may always be considered first of all as symptoms of certain *bodies*" (GS §2).⁹ Nietzsche's

⁶ Here Nietzsche is relying on an interpretation of Socrates' request to Crito to sacrifice a rooster to Asclepius, god of medicine and healing that understands Socrates as grateful for death.

⁷ "A philosopher who has passed through many kinds of health, and keeps passing through them again and again, has passed through an equal number of philosophies" (GS §2).

⁸ One can look to TW "Towards a psychology of the artist" for an example of Nietzsche discussing psychology in purely physiological terms.

⁹ This applies not just to philosophers but intellectuals and scholars more generally. On Nietzsche's account, any particular piece of scholarly work, in virtue of being the product of a particular body, is conditioned by an

reading of Schopenhauer as an ascetic philosopher *par excellence*, is a crucial example of how he thinks philosophy expresses physiology.

In the *Genealogy*, Nietzsche claims that the significance of the ascetic ideal for philosophers is as a means of coping with the suffering induced by sickness (GM III §6). In making this claim, he takes as his target Schopenhauer, who held that life was essentially suffering and that pleasure was merely the fleeting absence of pain. Nietzsche sees Schopenhauer's life-denying ethics as the best example of the, "peculiar, withdrawn attitude of the philosopher, world-denying, hostile to life, suspicious of the senses, freed from sensuality [...] the *philosopher's pose par excellence*" (GM III §10). Schopenhauer certainly provides evidence for Nietzsche's diagnosis of him. In a key passage from *The World as Will and Representation*, Schopenhauer celebrates him who:

willingly takes suffering and death upon himself for the maintenance of what conduces and rightfully belongs to the welfare of all mankind, in other words, for universal, important truths, and for the eradication of great errors (Schopenhauer 1958, §67).¹⁰

The will to truth over life features prominently in Schopenhauer's pessimistic ethics, and it is precisely this willingness to measure life against an ideal that Nietzsche objects to, branding it, "ascetic." On Nietzsche's reading, Schopenhauer's willingness to judge life as suffering stems from particular conditions in his personal life, and his devotion to truth is a means of escaping "torture" (GM III §6). All ideals are simply the "resting places, and *sunning* places of thought to which suffering thinkers are led and misled on account of their suffering" (GS §2).¹¹ It is for this

individual's genealogical descent, social conditions, and habits. He writes, "Once one has somewhat trained one's eye to recognize in a scholarly book, in a scientific treatise, the scholar's intellectual *idiosyncrasy* – every scholar has one – and catch it in the act, one will almost always behind it come face to face with the scholar's 'prehistory', his family, especially his occupations, and crafts" (GS §348). See also *Twilight of the Idols*, "Socrates was a misunderstanding" (TW 166).

¹⁰ Schopenhauer immediately offers Socrates as an example of such a person (Schopenhauer §67).

¹¹ The quotation continues, "every philosophy that ranks peace above war, every ethic with a negative definition of happiness, every metaphysics and physics that knows some *finale*, a final state of some sort, every predominantly

reason, Nietzsche surmises, that Schopenhauer was moved to value music; it granted him relief from the aggravations of being a twenty-six year old male (GM III, §6). To alleviate his pain, Schopenhauer built a philosophical system around that which was most precious to him: truth and music. Measured against the standard of his ideals, life was judged futile and fit worthy of sacrifice. Like Nietzsche's diagnosis of Socratic and Platonic thought, his account of Schopenhauer's philosophy pronounces its ascetic ideals to be symptomatic of the physical suffering of its architect.

On Nietzsche's story, the philosopher's personal afflictions, along with a desire for eternal truths and the trappings of transcendental ideals, stem from a certain kind of constitution; an enervated one that demands "freedom from disturbance, noise, from business, duties, cares...all dogs neatly put on a chain; no barking of hostility and shaggy rancor; no gnawing worms of injured ambition; quiet and undemanding intestines..." (GM III, §8). Philosophers' weak constitutions cause them to suffer from everyday life, which inspires them to seek relief in transcendental ideals. The philosopher employs ideals like universal rationality, beauty, and especially truth to impose meaning upon the world. Belief in such ideals reassures him that there is a reality beyond life's tribulations. And while philosophy's ideals do not cure the condition that predisposes this type of person to suffer from life, they do offer some relief from its symptoms. The sickly gravitate towards transcendental ideals as a source of meaning and comfort in an otherwise trying and painful existence. For this reason, Nietzsche thinks, we can recognize in philosophical asceticism "a partial physiological hindrance and tiredness" (GM III, §13).¹²

aesthetic or religious craving for some Apart, Beyond, Above, permits the question whether it was not illness that inspired the philosopher" (GS §2), suggesting that philosophies must be judged based on the health of their authors (Cf. Brobjer 1995, esp. 105-29).

¹² Consider also his assessment of those who adhere to Christian morality, their devotion to the ascetic ideal is at once a symptom and perpetuating cause of their sickness: "indeed the more the true cause of [their] feeling bad, the

One of the ways that Nietzsche characterizes the physiological exhaustion of philosophers is as a form of indigestion, a kind of psychic inhibition that prevents individuals from accepting life as it presents itself to them. Plato's weak and cowardly nature compelled him to turn to an ideal form of truth in order to escape dealing with the messy, sometimes contradictory facts that presented themselves to him. Schopenhauer betrayed his inability to cope with life in a philosophy that affirmed truth and music while denying life. What makes both of these assessments cases of indigestion, according to Nietzsche, is that each of these ascetic philosophers was moved to philosophize because he was unable to take in – to process – life as it came to him in experience. The philosopher's tendency to interpret life in terms of ascetic ideals is akin to those who need to take their meals with antacids to avoid heartburn. But, recalling the quotation from the previous chapter, it is more than just a akin to digestion, psychic indigestion it is “just as physiological...and in many cases in fact only one consequence” (GM III, §16) of gastrointestinal indigestion.

The connection between mental and physiological indigestion is, for him, more than mere analogy: like indigestion of the stomach, psychic inhibition has its roots in physiological causes. He suggests that if we had a proper physiological outlook we would see that this mental inhibition requires a change in the material conditions of our lives. He lists climate, the “exhaustion of the race,” diet (alcoholism, vegetarianism), and diseases of the blood (malaria, syphilis) as factors to consider (GM III, §17).¹³ If we take Nietzsche seriously in the relevant

physiological one, remains concealed from them - it can lie for instance in a sickening of the *nervus sympathicus* or in an excessive secretion of bile, or in a deficiency of potassium sulfate or phosphate in the blood or in pressure conditions in the abdomen that stop the circulation of the blood, or in the degeneration of the ovaries and the like (GM III§15).” According to W.H. Schlüsser, a chemist whose 1879 work Nietzsche read, potassium phosphate was “a constituent of the brain, the nerves, the muscles, and the blood-corpuses,” and a disturbance of the levels of this molecule could lead to mental depression and “softening of the brain” (Schlüsser 1879, 23/24). The former condition was, according to the diary of a young Nietzsche, diagnosed as the cause of his father's death in 1840. Apparently, the autopsy revealed a quarter of the brain matter missing (Young 2010, 9).

¹³ See also GM III, §26, “the positively undeniable and already tangible desolation of the German spirit, whose cause I seek in an all-to-exclusive diet of newspapers, politics, beer, and Wagnerian music.” You are what you eat.

passages, we see the ascetic ideal functioning as a treatment for an indigestion of the psyche induced by environmental and physiological conditions. The point is that there is strong connection between the health of the body, particularly that of the digestive system, and the functioning of the mind, whose health is “just as physiological” as that of the viscera. Indigestion of the psyche is just as physiological as that of the stomach, and a cure must begin with properly diagnosing it as such.

In Nietzsche’s physiological critique, the will to truth plays a dual role as symptom of certain physiological conditions and as their ineffectual treatment. It betrays a particular disposition, and it provides an impotent antidote for the afflictions that plague such a constitution. As “affect medicine,” the will to truth promotes the condition of illness by merely treating the symptoms while leaving the underlying causes. An actual cure demands that we see the will to truth for what it is: a physiological condition; we need to understand the value of truth in terms of health.

2.2 *Gesundheit*¹⁴

Nietzsche’s conception of health cannot be summarized in a single basic formula; like many notions of health, both pre-reflective and philosophical, Nietzsche’s has several aspects. Moreover, his concept of health evolved over time; at first articulated in strictly biological terms, he eventually substituted the notion of the will to power for that of health (Podolsky & Tauber 1999, 301).¹⁵ His many variations on the theme of health shared certain basic characteristics that may be captured by the statement: an individual’s health is constituted by her ability to actively

¹⁴ The German term that most frequently corresponds with “health” in originals of Nietzsche’s work is “*Gesundheit*.” I will note the German original for all English translations.

¹⁵ The will to power brings with it a whole separate set of interpretive issues. To avoid some of them I am going to restrict my discussion primarily to Nietzsche’s views on health. The concept of health pre-dates that of the will to power in Nietzsche’s writing, by bracketing the latter we can come to appreciate its physiological – and *timely* – pedigree; that being said, there is significant overlap between the two concepts in later writings, particularly in those constituting *The Will to Power*.

strive against obstacles towards some end. Nietzsche considered the ability to do so to be, quite simply, living. Drawing upon the work of certain German biologists – to whom we will turn in Chapter Three – Nietzsche saw life as individuals (not necessarily whole organisms) struggling to meet their own ends (not necessarily volitions); health was the degree to which each was capable of doing so.

This section will cover a couple of important characteristics of Nietzsche's account of health. The first thing to emphasize is that, on this account, health is open-ended and non-normalizing (individual): "there is no health (*Gesundheit*) as such, and all attempts to define such a thing have failed miserably... There are innumerable healths (*Gesundheiten*) of the body" (GS §120). No particular end state or norm sets the goal for all individuals. This is an intuitive idea; we generally think that what counts as healthy varies for different bodies at different times. We wouldn't hold a ninety-eight year old to the same standard of health as twenty-year old. The second thing to emphasize is that Nietzsche's definition supplies a supra-individual standard by which individual degrees of healthiness can be recognized as such and judged against one another. Individual healths fall under a general category of Health insofar as they are all expressions of a general capacity to move towards whatever ends are appropriate for some particular body.¹⁶ These two characteristics – non-normalizing and supra-individual – provide Nietzsche with a definition that does not set specific prescriptions for any given person, but according to which he can evaluate the health of individuals against one another. It is this open-ended notion of health that he uses to critique the value of truth for life.

¹⁶ There are interpretive puzzles here, some of which also afflict the doctrine of the will to power. Bernard Reginster deals with the status of the will to power as descriptive and normative claim by identifying it as a second-order desire (I prefer the term "drive" to avoid overtones of intentionality) that takes other (first order) desires as its object. The will to power, as Reginster understands it, is the "overcoming of resistance" and can be applied to anything that resists (Reginster 2006, 132). Nietzschean health, on my reading of it, could be understood analogously as the drive to overcome resistances in order to realize a particular end that one is driven to meet. The idea of seeking out and overcoming resistance could, no doubt fruitfully, be related to Nietzsche's knowledge of amoeboid movements and pseudopodia, which he took from men like Michael Foster.

According to Nietzsche, there is no pre-set program, no diet, for those who seek truth: “there is no formula for how much a spirit needs for nourishment...[we free spirits] would rather live free with little than unfree and stuffed” (GS §381). Only the individual can determine what health is for her: “[d]eciding on what is health (*Gesundheit*) even for your *body* depends on your goal, your horizon, your powers, your impulses, your mistakes and above all on the ideals and phantasms of your soul” (GS §120). Compared to scholars, free spirits have “different needs; grow differently; have a different digestion” (GS §381). It is difficult to see how an approach that doesn’t take seriously the digestive-metabolic language could make sense of such a statement. Yet, in following the physiological conception of the value of truth we are led to the idea that different bodies will relate differently to truth. He writes in *Beyond Good and Evil*, “the strength of a spirit would be proportionate to how much of the “truth” he could withstand – or, to put it more clearly, to what extent he *needs* it to be thinned out, veiled over, sweetened up, dumbed down, and lied about” (BGE §39).¹⁷ While some will possess a constitution strong enough to process all of life’s harsh truths, not everyone is capable of having the kind of relationship to truth that Nietzsche endorses; not everyone can be a free spirit.

Philosophers of the ascetic ideal have a specific physiological make-up, which compels them to embrace a particular conception of truth; they must mask the facts of life with heavy ideals. For them truth functions as an otherworldly ideal that stands above (or behind) the flux of experience and serves to judge the value of that experience. Faith in such ideals stifles attempts to come to terms with life as it is, and promote complacency over engagement. The free spirit possesses a different physiology, which enables her to have a healthier relationship to truth and interpret experience in ways that allow her to grow and flourish in this world. Truth for the free spirit is simply the truth of things as they present themselves in experience. This isn’t to say that

¹⁷ As the brackets indicate, “truth” is functioning differently here than when it refers to an ideal conception of truth. Here truth means something like the unavoidable facts that we experience in life.

Nietzsche endorses a correspondence theory of truth –, but that, whatever truth ends up being, the value of truth for the free spirit will come from her attempts to honestly face the facticity of things as she experiences them. The free spirit craves the full spectrum of experience; she needs to be exposed to life’s triumphs, exasperations, confusions, and depressions without the flavoring of ascetic ideals. The ascetic philosopher may be considered somewhat healthy according to his disposition – insofar as he is not dead –, but judged against the free spirit, he appears significantly less hale and hearty. His sickness is his failure to even try to interpret the world without the aid of ascetic ideals. We cannot know in advance what will count as healthy expressions of the will to truth for whom: free spirits and ascetic philosophers are not marked at birth. The chances are better that a person will flourish if she assumes that she possesses the capacity to do so than if she assumes that she doesn’t. The extent to which an individual can flourish without ideals is precisely what Nietzsche thinks requires experimentation (see GS §110). Failure to experiment is a failure to push one’s self, and is a form of sickness.

A capacity for experimentation brings with it a responsibility to exercise it. A person cannot but have certain characteristics and capacities (horizons, powers, impulses, etc.) that will partially determine her health, but the extent to which she pushes these capacities to their utmost will be the real determinant of her level of health. There is something of the active-passive distinction here. But, the difference between health and sickness, for Nietzsche, is not fully captured by the distinction between activity and passivity. While the latter surely falls under the category of sickness, there is a sense in which certain kinds of activity can also be considered expressions of sickness. When one’s actions are simply reactions: responses to stimuli or events, rather than (to use a horribly anachronistic term) “proactive” engagements with the world, one is not pushing one’s capacities so much as simply “getting by.” It is for these reasons that Nietzsche criticizes Schopenhauer for being less healthy than he could have been. Rather than

strive to overcome his “honest horror” at the “de-deified world” (GS §357), he instead *reacted* with a philosophy that allowed truth and music to mask the repulsiveness of a godless world. In doing so, Schopenhauer did not express health, but instead let his sickness prevent him from following through with his original insight. Furthermore, in overlaying the godless world with ascetic ideals, Schopenhauer passed a final judgment on the value of life. By denying that the difficulties of this world were worth any consideration at all, Schopenhauer rejects the possibility of even attempting to overcome them. Seen through the lens of Nietzsche’s critique, Schopenhauer’s philosophy confuses the relationship between truth and life, and does so because he is not healthy enough to face the world as it presents itself to him.

“*Great health (grosse Gesundheit)*,” according to Nietzsche, is a “health that one doesn’t only have, but also acquires continually and must acquire because one gives it up again and again, and must give it up!” (GS §382).¹⁸ In the *Gay Science*, “great health” is closely aligned with the free spirit and an appetite for truth: “our curiosity and our thirst to possess it [the world] have veered beyond control – alas so that nothing will sate us anymore!” (*ibid*). Great health is the physiological condition of a philosopher worthy of the name. It is marked by an unadulterated desire to know the world as it is, and is great precisely because it is insatiable.¹⁹ In their account of Nietzschean health, Scott Podolsky and Alfred Tauber offer an interpretation of the healthy free spirit as one who “can challenge his principles and incorporate anomalies into new and expanded worldviews” (Podolsky & Tauber 1999, 302). Their interpretation stems from Nietzsche’s account of the biological world as being “characterized by disharmony and resultant

¹⁸ Nietzsche recognizes that perhaps, someday this very ideal that he posits for the philosopher will come into question and we will ask, “whether the will to health alone is not a prejudice, a cowardice and a piece of the most refined barbarism and backwardness” (GS §120).

¹⁹Nietzschean health cannot be a static state. It cannot be a final goal that one strives for, then achieves and maintains. Nor can it be a *telos* that exists in perfected form never to be realized in the world of becoming. Since what is actually at stake for health is the *capacity* for overcoming obstacles then one is not healthy in virtue of having reached a goal, but in virtue of having, and exercising, the ability even to strive for it in the first place. Health is a capacity that does not necessarily depend on the outcome of expressing that capacity.

struggle at all levels” (*ibid*). Accordingly, health is the ability to create some kind of order out of the chaos, while recognizing the chaos for what it is. That is, we are not healthy unless we can interpret the world without a veneer of ascetic ideals. On their account, great health has no final end state: the free spirit is always capable of critiquing her interpretations of the world and seeking to overcome them.²⁰ To the extent that an interpretation blocks further growth or avoids the challenge of facing the world as it presents itself, its author may be judged as sickly.

Nietzsche’s conception of health allows him to critically assess the values of ascetic philosophers like Schopenhauer and reveal the physiological shortcomings that attend a devotion to ideal truth. Faith in ascetic ideals springs from a psycho-physiological deficiency: ascetic philosophers struggle to digest life’s more troubling aspects, and this compels them to adopt ideals that make it easier to cope. The ascetic philosopher is less healthy than the free spirit who is capable of accepting and interpreting the world on its own terms. There is no predetermined interpretation for the free spirit; she must experiment with values and learn what suits her best. Not everyone is capable of such feats. Nietzsche acknowledges this in the idea that health differs for different constitutions. The ascetic philosopher enjoys a form of life that is, in some weak sense, healthy – insofar as it is some form of life –, but cannot be called truly healthy when compared to the free spirit. Nietzsche’s diagnosis of the philosopher and ascetic truth relies heavily on the language of health and digestion. Moving on to the second aspect of his critique, in which he explains how truth could be evaluated according to health and life, the language of digestion will continue play an important role. It is through such language that Nietzsche elucidates a way of thinking about the value of truth in terms of “incorporation.”

²⁰ I take this to be in line with what Andrea Rehberg suggests in her paper on Nietzsche’s “overcoming of physiology,” wherein she uses the term “physiology” instead of health (Rehberg 2002).

2.3 Truth, Inc.: Ruminative Interpretation

“truth stands to be incorporated” (GS §110).

If truth is to serve life, rather than judge life as the believers in ascetic truth would have it, it must be brought into the value sphere of embodied existence. If, as Nietzsche thinks, truth is valuable to the extent that it can be used in projects of self-experimentation, it must be incorporated into the lives of individuals. What might it mean for truth to be *incorporated*? We can enter the question by way of the opening aphorisms of *The Genealogy of Morality*; there, Nietzsche brings his criticisms against ascetic truth down to the level of specific example. He identifies the error of the “English psychologists” as offering purely teleo-functionalist accounts of the evolution of moral traits. Such accounts wrongly assume the universal, unchanging value of moral functions (i.e. moral virtue X serves current function Y. Y is not historically conditioned. Ergo, X evolved out of a past need for Y). The error lies in thinking of moral functions as if they were static and untroubled by historical change. If one assumes that altruistic acts were always beneficial to those currently benefitting from them it becomes easy to explain the presence of some social virtue by referring to the role it must have played for similar groups in prehistoric societies (GM I, §2). Part of the critical project in the *Genealogy* is to show how to provide better explanations for the origins of our morals. To this end Nietzsche advocates an historical approach that employs the *interpretive* methods of philology, which are designed to reveal the ways in which seemingly ahistorical objects have historical layers.²¹ This allows ideals

²¹ See GM I §4: “[t]he pointer to the right path was given to me by the question: what do the terms coined for “good” for the various languages actually mean from an etymological viewpoint?” See also GM I §4 and §5 for a demonstration of how Nietzsche thinks that philology can provide better, less naïve explanations of the evolution of concepts. While his particular etymology here is “untenable” (eds. GM, notes; 14:19), the methodological point still stands.

to be situated in the world of becoming, and re-evaluated accordingly. Nietzsche's critique takes aim at both values and methodologies for studying them.

The interpretive model of knowledge, Thomas Brobjer points out, makes the individual, with all of her particulars and idiosyncrasies, a crucial element in the process of knowledge acquisition (Brobjer 1997, 675-677). On this model, truth is indexed to particular spatiotemporal locales, particular bodies. It is understood as being bound to the level of the specific individual, and its value lies in its ability to transform them. In *Ecce Homo*, "Why I am so clever," Nietzsche highlights the importance of *active* interpretation in order to bring out the transformative value of truth.²² If truth is to be in service of life it must cease to be ascetic truth, which presumes its own inherent and independent value, and become part of the knower; to be exercised in action rather than held aloft as an idealization. Nietzsche likens this anti-ascetic account of truth to physiological growth: "[I]earning transforms us, it acts like all other forms of nourishment that do not just "preserve" – as physiologists know" (BGE §123).

By attending to the language of ingestion and digestion we can glean an idea of what Nietzsche means by incorporating truth for the sake of transformation. He provides us with a clue when prescribing how his own aphorisms must be read: "*interpretation* must now begin...something for which one must be almost a cow and in any case *not* a "modern man": *ruminating*" (GM Preface §8).²³ Rumination, a process of ingestion whereby something becomes

²² The relevant lines from *Ecce Homo* read, "Scholars who spend basically all their time 'poring over' books...When they think, they are *responding* to some stimulus (- a thought they have read about). In the end, all they do is react" (EH "Why I am so clever," §8). Brobjer also cites HAH, I §270 and Dawn, Preface §5 to support the importance of transformative knowledge.

²³ The full quotation reads, "An aphorism honestly coined and cast has not been "deciphered" simply because it has been read through; rather its *interpretation* must now begin, and for this an art of interpretation is needed. In the third treatise of this book I have offered a sample of what I call "interpretation" in such a case: - an aphorism is placed before this treatise, the treatise itself is a commentary on it. Admittedly, to practice reading as an *art* in this way on thing above all is necessary, something which these days has been unlearned better than anything else – and it will therefore be a while before my writings are "readable" – something for which one must almost be a cow and in any case *not* a "modern man": *ruminating* . . ." (GM Preface, §8). There is much to be said regarding rumination as an "art" and its relation to the creation or cultivation of a perspective. Parallels between the art of interpretation and an art of dietetics beg to be drawn. Unfortunately, this paper will only touch ever so superficially on the topic.

part of an organism is more involved than mere ingestion, for it involves repeatedly returning to the same material and mulling it over and over again. Nietzsche wants the reader to read, absorb, re-read, and think over what is on offer in his books. On the ruminative model, knowledge accumulation is not merely a passive intake, but an active uptake and incorporation of material. The analogy lays out a model of knowledge-acquisition that encourages making the facts of experience part of yourself; “chewing [them] over” until you have a “fully digested” interpretation that has really become a part of your understanding of the world. The ruminative and nutritive metaphors illustrate what is at stake in interpretation: that we grow from what we learn.

The belief that nourishment is more than just preservation suggests that ruminative interpretation involves more than knowledge as a means for getting by. Ruminative interpretation is only worthwhile to the extent that it facilitates our ability to transform ourselves and our lives. If we really incorporate something – make it part of ourselves – we don’t simply maintain equilibrium, we grow and change. This idea is supported by a passage in *Ecce Homo*, wherein Nietzsche deprecates the “academic ruminants” whose will to truth serves only the interest of regurgitating knowledge (EH 115). Similarly, in the *Gay Science* he berates the modern “literary man of letters, who really *is* nothing but who ‘represents’ nearly everything, who acts and ‘stands in for’ the expert.” It is not enough to dabble in the shallows of learning for the sake of profiteering or improving one’s image. Knowledge must transform into something else – strength of character, creativity, conviction – in order for it to have value, according to Nietzsche’s critique. Ruminative learning has value only to the extent that it serves transformation and

For an account of Nietzsche’s interpretation in the third treatise see Clark 1997. For another instance of Nietzsche’s positive endorsement of rumination as thoughtful interpretation, see *Thus Spoke Zarathustra*, The ugliest human being, §4, where Zarathustra is described as mulling over the words of his interlocutors as if he were chewing “on good grains” (Z, 213).

compels us to explore further possibilities for self-creation.²⁴ “Truths” with dogmatic finality, like Schopenhauer’s pessimistic valuation of life, by passing judgment on life as a whole, cut off further questioning and render us satiated and complacent; unwilling and unable to move on. Truths acquired by ruminative interpretation are “experienced, deep, inward” (EH 115), and place us in a new position with respect to life. The value of truth on this model, unlike on the ascetic model, lies in its dynamism and transformative capabilities.

Exploring Nietzsche’s critique of truth by tracing his use of dietary-digestive language reveals truth seeking and knowledge acquisition as *activities*. In a discussion of thinking and dietary habits, Nietzsche recommends, “[t]he first presupposition of a good digestion is that the stomach as a whole becomes *active*” (EH “Clever,” §2; emphasis mine). Possessing truth on the ruminative-digestive model does not involve the mere passive reflection of something outside of one’s self. Physiological vigor makes itself known through the active interpretation of and engagement with life’s facts. In turn, such activity promotes our health and lends value to our truths. Thus, Nietzsche’s critique of ascetic truth is also a critique of naïve correspondence theories of truth that presume having the truth is merely a matter of passively reflecting the world. We will see in Chapter Three that the association between activity and healthfulness occupied a prominent place in the medical and physiological textbooks that Nietzsche read; the categories of active and passive were central to contemporary concerns about degeneracy as a

²⁴ Nietzsche makes a similar move to curtail the value of rumination in “On the Use and Disuse” by aligning it with a kind of insomnia that comes with an over-developed historical taste, “there is a degree of sleeplessness, of rumination, of the historical sense, which is harmful and ultimately fatal to the living thing, whether this living thing be a man or a people or a culture” (Use and Disuse p. 62). An animal cannot live from “constantly repeated rumination,” likewise the human interpreter cannot do anything with an interpretation if all they ever do is continually mull it over. It is a matter of balance between the historical and unhistorical senses, rumination and incorporation, that engenders the health of a person, people, culture (*ibid*). Julian Young quotes a much earlier Nietzsche saying something similar with respect to philologists, “The next generation of philologists...must give up the endless ‘chewing of the cud’ all too characteristic of the present generation” (Young 2010, 67).

condition of the will. Nietzsche shared these concerns, as his many references to degeneration imply.²⁵

Nietzsche employs health, particularly digestive health, as the standard by which values may be critically judged, and in doing so plays a role in Nietzsche's critical arguments. The language of digestion is rhetorically powerful and it illuminates the contours of his critique of truth while directing Nietzsche's reader to a different way of thinking about the value of truth. His use of this language accomplishes several things: 1) it configures knowing as an activity, not merely a passive representation of experience, 2) it embodies truth in an animal subject and brings it down from the idealistic realm of ascetic ideals, 3) it emphasizes the individual, perspectival character of knowledge, 4) it suggests a way of thinking about truth that does not take it to be unconditionally good; like the consumption of food, there is such a thing as too little or too much, which will differ according for individual bodies, and should be treated as a means to further ends: growth, strength, creativity, life. By tracking this vocabulary we come to see a picture of intellectual life revolving around interpretive activity pursued by individuals with the goal of truth for the promotion of their own health. This way of thinking about truth undermines traditional philosophical narratives, and aims to set the project of philosophy in a whole new light. Philosophy is denied the freedom from judgment according to other standards: the value of truth is made to serve life and growth, and is denied the status of universal, unconditional good for all. According to Nietzsche's concept of health, the value of truth will serve individual bodies differently, and some will be healthier than others.

²⁵ Take for example, "what is most profoundly sick and degenerate about such hybrids [skeptics] is the *will*" (BGE §208), and "can we really be at home in an age that loves to claim the distinction between the most humane, the mildest, and the most righteous age the sun has ever seen? . . . What we find [. . .] is merely an expression – and a masquerade – of a deep weakening, of weariness, of old age, of declining energies!" (GS §377). (See also GM III§17, III§26; BGE §61).

It may be objected that an explanation that privileges certain instances of figurative language remains on the level of analogy and is, therefore, of limited philosophical importance. I hope to have shown that the language of digestion and health is necessary for understanding Nietzsche's critique of truth. Still, there are other reasons to consider this language as more than just rhetorical embellishment. First, there is the argument from biography. Nietzsche personally suffered from chronic digestive problems that often got in the way of his philosophical work. His reflections on these experiences suggest that he appreciated a close connection between good thinking and good digestive health. On some level, he recognized that his ability to philosophize was linked to the health of his digestive system. A second reason to take what Nietzsche says about digestion, etc. seriously is that these passages did not express only the isolated sufferings of a philosopher with a touchy stomach. Nietzsche's understanding of digestion and health came from his reading of physiology texts, and his contemporary readers would have recognized his intellectual debt to science. Against the backdrop of nineteenth-century physiology and the emerging science of nutrition, Nietzsche's digestive language would have resonated with scientific and medical concerns about the degeneration of European culture and the modern human body. The links between cultural degeneration, weakness of the individual will, and digestive health were well-forged in the scientific and public discourse of his day and Nietzsche knew it. Demonstrating that this is the case will be the goal of Chapter Three.

Chapter 3: Nietzsche Reads Physiology

“Our thoughts grow out of us, our values, our yes’s and no’s and if’s and whether’s – the whole lot related and connected among themselves, witnesses to one will, one health (*Gesundheit*)...” (GM, Preface §2)

“I created my philosophy from out of my will to health, to *life*...” (EH 76).²⁶

There are several dimensions to Nietzsche's reading of physiological and dietetic texts. He was at once a scholar interested in the significance of scientific theories for human life, an adult who wished to fill the gap left in the liberal arts education he received as a child, and a person who continually suffered from gastrointestinal aggravations. These various ways of being a reader are not easily separable. The interpretive complexities introduced by this many-layered way of reading are compounded by the fact that the writers of the texts were themselves motivated by a wide variety of concerns; their scientific writings were often also explicitly written with an eye to broader cultural resonances. There is no neat parsing out of Nietzsche's reading into philosophical, scientific, and personal. His thoughts were informed by a wide variety of sources including scientific textbooks, dietetic regimes of health spas, and written accompaniments to commercial products. This hodge-podge of intellectual resources informed Nietzsche's understandings of life, health, and the possibility of healthy philosophy, and demonstrating that this is so is the burden of the present chapter.

Nietzsche's critique of truth diagnoses ascetic truth as unhealthy and hostile to life. We saw in the previous chapter that his critique called upon individuals to experiment with the value of truth; to test their ability to live in the world without the comforting and falsifying effects of ascetic ideals. In order to motivate the call for and judge the outcome of such experiments,

²⁶ “ – *ich machte meinem Willen zur Gesundheit, zum Leben, meine Philosophie...*”

Nietzsche needs a particular conception of life and health. In order to support the idea that health was something the individual must pursue, he needs his concept of life to support the idea of internally-generated change – as opposed to change that comes from the external conditions of an individual's existence. And, to support the idea of continual overcoming of resistance, it needs to encourage the idea that growth and change are, at least in principle, boundless. These two requirements must be met for Nietzsche's concept of life to serve his call for critical experiments in the value of truth for life.

Not just any conception of life could achieve such goals. An Aristotelian conception of life fails to provide an impetus for experimenting with the values that determine who we are. Since an Aristotelian model defines each species according to its *telos*, it thereby limits the possibilities of what could be considered healthy expressions for that form of life. The *telos* for any given type of organism provides the norms for judging the functioning and health of an individual. In the case of human beings, a particular account of rationality provides the norm, and even if it is not fully achieved in this world, by setting a universally applicable norm for the species, the *telos* does little to encourage experimentation with other ways of being human.

Nietzsche's understanding of Darwinism prevented him from seeking in the theory of evolution by natural selection, an account of life that could serve his critique of values. Darwin's theory, as Nietzsche understood it, over-emphasized the role of environmental factors in the direction of evolutionary change (TW). If Nietzsche's critique is to have the ability to motivate experiments in other ways of valuing and being, it requires a conception of life that endows the individual with the capacity to change her way of living. It was thought by many in the nineteenth century, Nietzsche included, that an account of biological change that portrays individuals as flotsam in a sea of environmental factors, rather than the active agents of self-transformation, does little to encourage active engagement on their part. The human

repercussions of such a theory were thought to be the promotion of complacency and nihilism in the face of adverse conditions. This is not to say that this is an accurate portrayal of Darwin's theory, but these concerns hint at why some, like Nietzsche, might have preferred Lamarckian ideas.

The account of life that Nietzsche employs in his critique is based upon the work of German physiologists and physicians. In the physiological theories of men like Wilhelm Roux, William Rolph, Michael Foster, W.H. Schüssler, and others, Nietzsche finds a notion – or, family of related notions – of life that met the requirements of his critical project. The key features of these physiological theories provide Nietzsche with a concept of life that allows him support the normative aspects of his critique with the authority of physiology. Physiology also supplied Nietzsche with a language that would have resonated amongst his fin-de-siècle readers. The role that physiological ideas played in shaping the cultural atmosphere at the end of the nineteenth century cannot be overemphasized. Nietzsche's critique of values, with its frequent appeals to the vocabulary of digestion and diet, relied upon and contributed to this general cultural of physiology.

3.1 Dietetics and Degeneration: The Mind-Stomach Problem

In the nineteenth century, experimental physiology was the only institutionalized, widely read science; it was “Big Science” (Holmes 1997). Labs devoted to physiological research sprung up in all of Europe's major capitals; physiologists came together in large numbers, acquired students, and conducted elaborate experiments. The human body was re-conceptualized as an entity susceptible to experimental manipulation and precise measurement; theretofore unimaginable instruments were designed to record its many variables. The findings and general outlook of physiology did not remain confined to the pages of scientific journals, but were

widely disseminated throughout late-nineteenth-century European culture; artists eagerly adopted and manipulated the ideas and materiel of physiologists (see Brain 2008a, 2008b, 2010). The human body was conceptualized as a complex system that transformed and exchanged energy much like an economic system does capital. As we shall see, Nietzsche's account of healthy life assumed the key points of some of these models.

If the nineteenth century was the century of the physiological body, it was also a century preoccupied with the proliferation of psychiatric diseases and the decline – cultural, physical, and intellectual – of European civilization, and the root of these fears provided Nietzsche with a model of sickness. Unlike other periods of perceived mass decline, nineteenth-century concerns over the decline of European civilization were rooted in a “medical model of cultural crisis” (Nye 1982). The key concept, degeneration, was nebulous, capable of changing meanings and adapting to local conditions in different times and places.²⁷ I will gloss over many of its complexities and details in order to sketch a broad picture of the scientific-cultural landscape.²⁸ Nineteenth-century theories of degeneration shared a common root in evolutionary theory; the ideas of heredity and the species' malleability played major roles anxieties over degeneration. Relying upon Lamarckian ideas about the heritability of acquired traits, a broad spectrum of traits was believed to be heritable. In the 1880s, it was thought that a degenerate family might include drunkards, prostitutes, Jews, literary aesthetes, homosexuals, “modern women,” and paupers. By that time the idea of degeneration, first articulated by French psychiatrist Benedict Morel,²⁹ migrated easily between the levels of the individual, the family, the social class, the nation, and the race: degenerate individuals could bring down a culture, degenerate races could

²⁷ Daniel Pick cites one Dr Cullère lamenting in 1895: “*Dégénérescence* is one of the most divisive problems amongst contemporary alienists...is it useful in the understanding of mental illnesses?...At the present time, such questions preoccupy not only congresses, but also books, the press, clinics...the quarrel turns as much on the words as their contents and nobody agrees to speak the same language” (Pick 1989, 8).

²⁸ For more detailed treatments, see Pick 1989; Nye 1982, 1984; Gilman and Chamberlain 1985.

²⁹ *Traité des dégénérescence physiques, intellectuelles, et morales de l'espèce humaine* (1857). German translation 1860.

infect other races. The theories and tropes of degeneration, largely middle class inventions, were widespread and crossed disciplinary boundaries, appearing in medical journals, scientific texts, newspapers, visual art, theatre productions, and literature.

After George Beard's work on neurasthenia appeared in 1881, German medical authorities and citizens came to understand degeneration as based in the weakening of the will (Roelcke 2001, 181). Beard, an American, coined "neurasthenia" to describe a chronic exhaustion of "nerve force," a condition that he believed was caused by the stressful environment of modern industrial-capitalist society (Furst 2008, 46). The etiology of Beard's theory was physical and sociological: sociological facts of modern life, like the length of the workday, caused a physical decrease in nerve force. A typical case for Beard would have been a young doctor or an older capitalist entrepreneur whose work was highly involved and mentally straining. Neurasthenia, for both the medical community and the more general populace, was seen as an educated, masculine, and middle-class affliction (Kaufmann 2001, 162). It didn't take long for Beard's ideas and many of their attendant associations to take root in Europe where they engendered a conception of the neurasthenic as a modern intellectual of the bourgeois class. Beard's theory was particularly well received in Germany where it was taken up and modified throughout the 1880s. German-cultivated theories of neurasthenia combined Beard's ideas about exhausted nerve force with ideas about heredity and degeneration, which resulted in a sociological model of heritable pathology (Roelcke 2001, 181).³⁰

The ground for the enthusiastic reception of neurasthenia in Germany was in part laid by the work of physicists and physiologists like Hermann von Helmholtz, Julius Robert Mayer, and

³⁰ By the second half of the 1890s the plurality of views on nervous exhaustion and degeneration more or less consolidated into an understanding of neurasthenia as brought on both by "modern" environmental factors and heritable causes (Roelcke 2001, 181).

Rudolf Clausius; experimenters who “electrified” the nervous system (Roelcke 2001, 178).³¹ Neurasthenia relied upon a model of the human body as an energetic system; an input-output model that operated by taking in, modifying, storing, circulating, and expelling energy or force. Nerve force was understood as vital for the functioning of the will. In the physiological energy-economy, a depletion of nerve force could negatively affect the ability of an individual to assert their will when faced with a host of degenerative threats, e.g. sloth, alcoholism, sexual deviancy. In late nineteenth-century Germany, neurasthenia provided a diagnostic framework that linked mental and bodily health.³² One well-known German physician, Daniel Gottlob Moritz Schreber, captured the spirit of this economic-energetic model in his description of its currency: “capital is understood as power...fresh power, – the innermost spring of vigorous life” (Schreber 1855, 16).³³ On this model, body and mind were linked through the sharing of finite energy resources (*ibid* 179).

Nietzsche had been treated according to this model of the body: his own chronic digestive problems were diagnosed by one, Dr. Eiser, as resulting from too much mental strain (Young 2010, 239/240).³⁴ On the diagnostic model used by physicians like Eiser, the digestive system and the reproductive system were especially linked to the nervous system in virtue of being large

³¹ Roelcke lists the work of Helmholtz’s generation of physicist-physiologists, the idea of limited energy resources, and Griesinger’s idea of “neuropathic disposition” as the three intellectual conditions for the acceptance and flourishing of Beard’s theory in Germany (Roelcke 2001, 178).

³² Beard committed himself to a one-way etiology: physical deficiencies caused psychic illness. But in truth, he would often slide from the psychological to the physiological in such a way as to sometimes make it difficult to recognize cause from effect (Furst 2008, 422/43). We will see below that for the people that Nietzsche read and dealt with, it was equally plausible to diagnose physical conditions in terms of psychological causes.

³³ Schreber’s *Ärztliche Zimmergymnastik* was a book that Nietzsche is said to have read in 1878 (Moore 2004, 75). Schreber’s indoor medical gymnastics aimed at “relieving or drawing off the causes of nervous overstrain, and refreshing the mind by gently strengthening and stimulating the system while it soothes the over-tense nerves” (quoted in Moore 2004, 75). Exercise was an important aspect of Nietzsche’s life, in 1881 a typical day in Sils Maria, weather and health permitting, would include about seven hours of walking (Young 2010, 316). The healthy philosopher was “not among those who have ideas only between books, stimulated by books – [his or her] habit is to think outdoors, walking, jumping, climbing, dancing, preferably on lonely mountains or right by the sea where even the paths become thoughtful” (GS §366).

³⁴ Richard Wagner’s diagnosis, which was taken as credible at the time, was that Nietzsche’s physical sufferings were caused by sexual deviancy. See Gilman 2009.

consumers of nerve energy. If one used too much energy in digesting, one's psychic health suffered; alternatively, if one used too much energy in mental work, one strained the digestive system. Healthy dietary habits had to work towards the efficient use of energy in digestion in order to avoid loss of nerve energy for psychic functions.

Recently, English-speaking Nietzsche scholars have begun to situate his philosophical work alongside his concerns about degeneration and his interest in its biological and medical foundations.³⁵ Scholars working in the Weimar archives have revealed Nietzsche as a reader of works by Henry Maudesly, Francis Galton, Casare Lombroso, Charles Féré, and others.³⁶ In addition to the evidence coming out of the archives there is considerable textual support suggesting that Nietzsche was preoccupied with the idea of degeneration and located the causes of psychological and ethical decline in physiology.³⁷ He describes himself as one who possesses “an uncommon eye for the overall danger that “humanity” itself will *degenerate*” (BGE §203).³⁸ Nietzsche's use of health and life in his critique of values should be read against a backdrop of medical theories of degeneration and the general atmosphere of anxiety that attended these theories; his own thoughts on digestion and philosophizing were informed by his reading of scientific-medical literature. While the notion of influence is always complicated and difficult to establish, I hope, at the very least, to point to some elective affinities between what Nietzsche is

³⁵ Cf. Rehberg 2002; Moore 2006; Poldosky & Tauber 1999; Smith 1987. Daniel Pick, in an essay on turn of the twentieth century “maladies of the will” writes, “Friedrich Nietzsche drew on various specialist works on degeneration and criminality as he portrayed racial malaise, enervated bodies and bad nerves of the nineteenth century” (Pick 2007, 206).

³⁶ Cf. Moore 2000, 2006; Wahrig-Schmidt 1988; Lampl 1986. Wahrig-Schmidt finds that Féré's *Sensation et mouvement* exerted considerable influence upon Nietzsche's on health, decadence, and degeneration, particularly between 1887 to 1889. While she finds evidence of Féré's influence as early as the *Genealogy of Morality*, her arguments focus primarily upon a group of notes dating from the spring of 1888, letters dating from 1888 and 1889, as well as the published works of 1888: *Twilight of the Idols*, *Antichrist*, and *The Case of Wagner* (Wahrig-Schmidt 1988; 450, 455).

³⁷ Cf. GM II§7, III§13, III§15, III§17, III§25, 26; GS §377.

³⁸ Nietzsche read far more texts on physiology and medicine than I am here dealing with. I have, with a couple notable exceptions, chosen a selection of those that are not typically treated in the Nietzsche literature. Among those that Nietzsche read but will not be treated in what follows were Karl Ferdinand Kunze's *Compendium of Practical Medicine*; Emil Hurnemann's *Contributions to Practical Medicine*; Carl Ernst Bock's *The Book of the Healthy and the Sick Person* (Moore 2004; 72, 73, 76).

known to have read and the contents of his philosophical writings. His diagnoses of ascetic philosophy and his prescriptions for healthy philosophy relied on connections established by the discourses of degeneration, neurasthenia, and dietary-digestive health. Nietzsche used the medical and cultural knowledge of his day to articulate a new vision for philosophy that took into account and responded to the conditions of modern life. Like many of his contemporaries, he saw neurasthenia as the culmination of the logic that underlay modern intellectual culture. His account of philosophy in service of life, with its healthier relation to truth, was an attempt to reinvigorate philosophy and intellectual culture using the tools and theories of modern physiology.

3.2 You are What You Eat: Health and Consumption

Nietzsche began to seriously read natural science later in his life, in an attempt to make up for the shortage of science training in his classical Pforta education. Around 1875, he started to acquire and read texts on physics, cosmology, physiology, animal behavior, medicine, psychology, and dietetics; his interest in physiology really sparked around 1881 and only intensified until his mental collapse (Brobjer 2004, 21). One should not look to Nietzsche for an explanation of any given scientific theory; his interest in the natural sciences did not lie in the intrinsic value of their hypotheses, but in their significance for human existence, and how they might come to serve his philosophy.

Wolfgang Müller-Lauter's 1978 essay "*Der Organismus als innerer Kampf: der Einfluss von Wilhelm Roux auf Friedrich Nietzsche*" ("The Organism as Inner Struggle: Wilhelm Roux's Influence on Nietzsche") was an early attempt to read Nietzsche's philosophical work in light of his natural-scientific studies. Wilhelm Roux (1850-1924) was an experimental physiologist, anatomist, and evolutionist who is known as the founder of "developmental mechanics": a

science concerned with the evolution of parts of organisms. Müller-Lauter follows Roux's influence on Nietzsche from notes taken in spring and fall of 1881 through into the *Nachlass* (Müller-Lauter 1999, 163).³⁹ While initially very taken by Roux's thought, by the second half of the 1880s Nietzsche's conceptions of life, health, and the organism had taken on a life of their own in the language of the will to power. Yet even in the later years, Nietzsche's thoughts on life and health continued to be indebted to Roux's work.

As a critic of Darwin, Roux rejected natural selection as the basic formative mechanism of the biological world. He understood Darwin's theory to be premised, first and foremost, upon the idea of "survival of the fittest" and thought that it thereby over-emphasized the role of external pressures in species' development. Roux took his own evolutionary theory to have made two major modifications to post-Darwin evolutionary thought: it made the individual organism (as opposed to the group or species) the primary target of evolutionary forces,⁴⁰ and gave the concept of self-regulation a central role in organismal development. He denied that evolution occurred on the basis of natural selection from environmental pressures and argued that organisms evolved according to a logic of self-regulation. Self-regulation was not a matter or a sovereign self organizing and regulating subordinate components. Organisms were not, on Roux's account, centralized actors operating according to a unified will, but a collection of competing parts. Through the competition for space and metabolic resources, parts managed a dynamic equilibrium that served the whole organism. Self-regulation was simply the dynamic, never final, outcome of wars waged between the competing parts of an organism. Self-regulation was the product of struggle, an idea that Roux made central in his theory of evolutionary

³⁹ Müller-Lauter cites Roux's appearance in Nietzsche's notebooks as coinciding with that of Julius Robert Mayer and Michael Foster, the latter of which we'll turn below (Müller-Lauter 1999, 163).

⁴⁰ It is very likely that Roux was confusing Darwin's theory with the ideas of Herbert Spencer and Alfred Russell Wallace, both of whom believed that the group or species was the target of selective forces. Darwin himself, however, believed that natural selection operated primarily at the level of the individual (Gayon 2010, 140).

development: “the struggle of the parts carries on a pre-selection for the “struggle for existence”” (*ibid* 170). The outcome of struggles between cells was tissues, the battles between tissues begat organs, and the wars between organs and other macro-parts yielded an individual. The idea that the individual formed itself through processes of internal struggle resonated with Nietzsche, and informed his thinking about life, the biology of the individual, and the healthy will.

For present purposes, the important thing about Nietzsche’s reading of Roux is the latter’s definition of life. The fundamental and defining features of life, for Roux, were growth and creative struggle. Roux took as basic the idea that parts were unequal in their capacities, and that there were only a finite amount of resources to be had. Inequality inevitably led to struggle, “simply because of metabolism” (*ibid* 169); parts had to compete for the limited space and materials available for growth. Struggle led to the creative development of organisms and their parts. Consumption and assimilation of resources were the primary driving forces of life because they were the means by which organisms competed with one another and developed. Clearly inspired by his reading of Roux, Nietzsche wrote in a note from this period, “even [in] assimilation...a certain self-production of the organic is performed” (*ibid* 169). The idea of self-transformation through ever-greater capacities for incorporation was the cornerstone of Nietzsche’s conception of health. Considered against the backdrop of Roux’s work, Nietzsche’s idea that health was measured by an ability to consume and grow, shares in the credibility granted to physiology in the late-nineteenth century.

In 1884 Nietzsche diverged somewhat from Roux’s conception of the organic. In his 1881 book, Roux refers to the driving force of life as “overcompensation for consumption,” what Nietzsche will initially refer to as “excessive replacement” (*ibid*). But this characterization of the struggle within and between organisms struck Nietzsche, by 1885, as overly teleological. He reasoned that if it was a matter of compensation or replacement there must be some ideal state

that serves as a limit for consumption (*ibid* 173). Nietzsche rejected teleological explanations in natural science on the grounds that they suggested some kind of design or pre-ordained plan, and could have no place in scientific explanations of the world.⁴¹ He skirted Roux's supposedly teleological principle of replacement by adopting a principle of pure "insatiability." Although Roux's ideas about the composite identity of an individual and the importance of self-regulation by way of internal struggles remained important to Nietzsche's later thought, we must turn elsewhere for the notion of insatiability.

William Rolph's *Biologische Probleme* (1882/1884) was another text in Nietzsche's library that, it has been suggested, "exerted [a] powerful influence on Nietzsche's thinking about physiological processes" (Moore 2004, 79).⁴² Rolph was an entomologist who taught at the University of Leipzig; his major work was first published in 1882 and then expanded in a posthumous edition in 1884. Nietzsche read Rolph in 1885 and heavily annotated his copy of the text (Brobjer 1997, 679). Like Roux, Rolph denied the need for a unified coordinating center for the self-preservation of an organism, but not because he resisted the idea of a unified individual, but because he took issue with the idea of self-preservation. He wrote: "life seeks primarily to expand itself," driven by an involuntary "urge to assimilate" by increasing its level of consumption. Rolph understood Darwin to be endorsing a mere "will to self-preservation," which, Rolph argued, could not possibly account for the diversity and over-abundance to be found in the biological world. All organic functions, from nutrition and reproduction right up to species evolution, could be explained by what Rolph called the "principle of insatiability" (Moore 2006, 527). His interpretations of the behavior of protoplasmic organisms engulfing and assimilating one another using their pseudopodia, and the ability of plants to constantly take in

⁴¹ See GM II§12 for a rejection of teleology in the explanations of the "English psychologists" and "previous genealogists of morality."

⁴² Müller-Lauter makes a similar claim in an extended footnote (Müller-Lauter 1999, 241; fn 169).

nutriment served as the basis for his theory of life, which he referred to as a theory of nutrition (*Ernährung*) (Rolph 1884, 43). The principle of insatiability, the drive to acquire and assimilate ever more resources, was at the center of Rolph's alternative to Darwinian explanations of life (and, importantly, Spencerian explanations of ethics).

Rolph's work was simultaneously a study of the behaviors of protoplasmic organisms, a theory of life, and a treatise on human ethics.⁴³ His research began with the laboratory study of the feeding behaviors of amoebic organisms, which he interpreted as predatory: amoebas reached out into their environment, seeking the exiguous resistance of potential prey to in embrace in their enveloping pseudopodia. The fundamental drive that appeared to explain this behavior was the insatiable urge to hunt and assimilate. Rolph tracked the behaviors of predation and consumption up the taxonomic ladder, and granted assimilation and nutrition the honorific of being the organizing principles of life, capable of explaining protoplasmic and ethical behaviors. The belief that insatiability was the driving force of life played a major role in Nietzsche's criticisms of "Darwinism" in the late 1880s (Müller-Lauter 1999, 241; fn 169). Moreover, Rolph's account of life as the capacity to consume and assimilate more and more environmental resources resonated with Nietzsche's notion of *grosse Gesundheit*. Great health, as we saw, was the capacity to take in ever more and make it part of one's self, and as *great* health, it constituted the expression of life in its most robust form. Self-creative struggles and insatiable appetites characterized life, according to both Rolph and Nietzsche.

⁴³ It would seem that Rolph uses hunger to account for non-organic phenomena as well, "*Sind wir nun consequent, so müssen wir der anorganischen Welt ebensowohl Hunger zuerkennen, als der organischen. Dann frisst das Wasser den Zucker, und das Salz die in der Luft suspendirte Feuchtigkeit, dann frisst das hungrige Eisen den Sauerstoff der Atmosphäre, dann ist die Wahlverwandschaft der Stoffe eine Hungerverwandschaft. Ein Element stürzt sich aus einer Verbindung, in der sein Sättigungsbedürfniss nicht befriedigt wird, auf eine andere, sobald ihm eine solche Möglichkeit geboten wird. Hunger wäre demnach ein Drang, der auf molecularer Anziehungskraft beruht, und wenn unter gegebenen Bedingungen ein gewisser, sonst gewöhnlich stattfindender Prozess nicht abläuft, so geschieht das nicht etwa, weil der Drang fehlt, sondern weil ein stärkerer Zug einen der beiden Contrahenten festhält*" (Rolph 1884, 55/56).

Rolph was not the only scientist that Nietzsche read who was interested in protoplasm. Theories of protoplasm enjoyed a place in the sun throughout the nineteenth century, reaching a pinnacle of sorts in the 1911 edition of the *Encyclopedia Britannica*'s entry for "life," which begins: "Life, the popular name for the activity peculiar to protoplasm" ("Life"). Like Rolph, Michael Foster, in his formidable *Textbook of Physiology*, gave pride of place to protoplasm as the fundamental material unit of organic beings; protoplasm posed the problems of physiology in their most basic form (Foster 1877, 422). Nietzsche read Foster's *Textbook*, first published in 1876, around the same time that he read Roux.⁴⁴ Gregory Moore has tracked the influence of Foster's protoplasmic research on the notes that formed the *Will to Power* (Moore 2002). When we look at Foster's emphasis upon protoplasm and descriptions of its fundamental properties we come to see affinities with Nietzsche's understanding of life as presented in earlier texts as well.

Foster distinguishes between two modes of protoplasmic life: "free," which denoted single-celled, amoebas, and "fixed," which existed collectively in more complex organisms (Foster 1885, 56, cited in Brain 2010). He lists "automatism" (the capacity to actively respond to an environment⁴⁵), irritability (the tendency to exert energy when provoked by an element of its environment), continual motion, self-production, reproduction, and assimilation as the elementary characteristics of protoplasm (Foster 1887, 424). Amoeboid protoplasm, according to Foster, was continually moving, exploring its environment, taking in and assimilating substances, and creating itself afresh. It was life in its most basic manifestation, and higher animals were simply conglomerations of differentiated protoplasm expressing its properties to varying

⁴⁴ Nietzsche cited the German translation, *Lehrbuch der Physiologie*, in his notebooks during the same year in which he was engaged with reading Roux (Müller-Lauter 1999, 164, fn 14).

⁴⁵ Automatism was the term Foster chose to indicate movements generated "from within," without making reference to a will, or suggesting irregular motion as "spontaneous" might. However, he often used "spontaneous" synonymously.

degrees.⁴⁶ Thus, Foster defined life in terms of the ability to acquire and store energy, and the capacity for self-generated activity. Death, by contrast, was defined by an inability to either take in or store energy, and the capacity for limited, passive movement only (Foster 1888, 2-3).

Rolph's and Foster's descriptions of protoplasmic amoebas actively seeking out and assimilating elements of their environment offer a picture of life that looks very much like Nietzsche's account of life as the "proactive" engagement with and incorporation of the world. Nietzsche's conception of life, as active incorporation for the purposes of self-creation, had its roots in the physiological literature of his time. The standard with which he critiqued the ascetic philosopher and his conception of truth is a naturalistic standard. Nietzsche used scientific research as the basis for his critique of ascetic philosophy and its concomitant notion of truth. His notion of life was an interpretation of the definitions and descriptions of life that he read about in physiology texts.

Understood as assimilation, digestion was a fundamental characteristic of life for those that Nietzsche read. With its emphasis upon acquiring and consuming energy, Foster's theory, like other economic-energy models of the individual organism, tended to prioritize the importance of diet and digestion because they provided the current and currency for the body's economic-energy system. For this reason, several sections of his *Textbook* are devoted to nutrition and diet, in which he gives an account of the intimate relation between mental and digestive health.

Foster took it to be a well-established fact that the nervous and digestive systems were intimately, though not directly, connected. The indirect influence of mental work on the metabolic economy was considerable. Foster asserted that the interconnectedness of the body's parts was best exemplified by the "well known tendency of so called brain work to derange the

⁴⁶ Protoplasm was differentiated according to its contractibility, automatic response time, metabolism, and reproduction. Units with similar capacities were thought to lump together to form tissues.

digestive and metabolic activities of the body” (*ibid* 846). Intense mental life, according to Foster, was closely related to dietary well-being; difficult conceptual work demanded a diet that could promote digestion and “lighten[...] the labors” of the stomach and liver (*ibid*).⁴⁷ The scholar used up considerable quantities of nervous energy and could not afford to her stretch resources thin by devoting too many of them to digestion. It was especially important for intellectuals to pay attention to their diet and strive to eat foods that aided digestion. The close relationship between gastrointestinal health and mental abilities was something that Nietzsche understood and appreciated on a personal level. It was not simply something he read about, it was something he experienced and incorporated into his philosophy.

3.3 Food for Thought: Nietzschean Dietetics

Nietzsche suffered from gastric ailments for most of his adult life. What caused his ongoing intestinal troubles remains unclear to biographers. He contracted dysentery while serving in the Prussian army, which may have had lasting consequences, but the evidence is ultimately inconclusive (Young 2010, 138). Whatever the causes may have been, over the course of his life he made irregular but concerted efforts to tame his unruly stomach. Diet was important to him and he took pains to judiciously record what he ate and when, which was often decided according to a strict schedule. Take, for example, the summer of 1881. While living in Sils Maria Nietzsche would each day eat: two raw eggs, rolls, tea, and aniseed rusks for breakfast; steak and macaroni for lunch; and another two raw eggs, tea, polenta (local staple), and more aniseed rusks

⁴⁷ The idea that mental work taxed the body’s energy resources in an unbalanced way was an important theoretical motivation in another popular health text that Nietzsche explored: D. G. Schreber’s *Medical Indoor Gymnastics*. Schreber advocated indoor gymnastics for those whose energy expenditures were too one-sided and consisted only in mental work. He believed it was important to balance the stimulation of the sensory nerves and the motor nerves in the constant “rejuvenation” of the body (Schreber 1899, 1; 6).

for dinner (Young 2010, 316).⁴⁸ In the 1870s, under the guidance of one Dr. Immerman, he experimented with more drastic and directed measures, including silver-nitrate and quinine treatments (*ibid* 207). Immerman concluded in 1873 that Nietzsche's physical ailments stemmed from his philosophical work: his headaches and gastrointestinal sensitivity were the result of over-stimulated nerves. The good doctor's suggestion was: "be more stupid and you will feel better" (*ibid* 171). A couple of years later, in 1875, Nietzsche found himself at Dr. Joseph Wiel's thermal resort in Steinabad, observing a diet almost exclusively of meat, with the occasional fruit salad and glass of claret. Wiel diagnosed Nietzsche's condition as a "chronic stomach catarrh accompanied by a significant widening of the stomach," and explained that the widening of the stomach interfered with circulation, preventing enough blood from reaching the brain (*ibid* 209). Again, Nietzsche's headaches and mental strain were linked to his digestive system in the eyes of a doctor who, though he probably did more harm than good, Nietzsche "had great respect for" (*ibid* 208).

Nietzsche experienced firsthand what was, by the 1880s, a well-established fact in the German scientific community: the correlation between dietary functioning, nerve force, and psychic health. We saw above that these links were forged in an atmosphere charged with worries about degeneration and neurasthenia. Nietzsche was highly attuned to this context, not only because he read scientific and medical texts, and not only because he himself had been treated according to its logic, but also because it was unavoidable: these ideas about digestion, nerve force, and degeneration circulated throughout popular culture, as is evidenced by the advertisements for Dr. Justus von Liebig's *Fleischextrakt*.

⁴⁸ Aniseed has a history of being used in European medicine for its carminative effect. It was promoted for this purpose in the botanist John Gerard's *Great Herball* (1597), "The seed wasteth and consumeth winde, and is good against belchings and upbraidings of the stomacke, alaieth gripings of the belly, provoketh urine gently, maketh abundance of milke, and stirreth up bodily lust: it staieth the laske, and also the white flux in women" (Gerarde 1636, 1035).

Nietzsche experimented with incorporating the very popular Dr. Liebig's *Fleischextrakt* into his dietary regime (Chamberlain 1996, 15). Around the same time that he began taking his "spoonful of Liebig's" Nietzsche also read one of Liebig's many promotional texts, *Liebig's Laws of Nutrition and the New Foodstuff Malto-Leguminose* (1878) (*ibid*). Justus von Liebig (1803-1873) was a chemistry professor with appointments in Giessen and Munich who, later in his career, turned increasingly towards the commercial aspects of chemistry. In the history of dietetics, Liebig is a key figure in the movement from an art of dietetics to a science of nutrition; he was one of the first to perform experiments that investigated the chemical compositions of food (Shapin 2011). Liebig and others helped make dietetic knowledge a matter of professional expertise rather than a personalized art of moderation (*ibid*). He also figures prominently in histories of scientific entrepreneurship; his *Fleischextrakt*, which hit the shelves in the spring of 1865, was one of his most popular exploits (Finlay 1992, 404).⁴⁹

Liebig's *Extrakt* was initially marketed for its strengthening, revitalizing qualities and in certain advertisements seemed to be associated with the primal virility and power of ancient Germanic races, see Fig.1.1⁵⁰ Like many of his contemporaries (see Joseph Wiel's meat-cure above), Liebig thought that red meat possessed special nutritive properties, and as early as 1847 had outlined recommendations for a "rational system of diet," which included instructions for "preserving and extracting the constituents of meat" (*ibid* 406). His beliefs were founded on the idea that nitrogenous foods, such as red meat, were necessary for building and maintaining

⁴⁹ The *Fleischextrakt* was produced, in partnership with the railway engineer Georg Christian Giebert, from low-grade cattle raised in Argentina. The animal flesh was flattened with iron rollers then dropped into a vat of boiling water. The broth was poured off into another vat where the fat was removed and the remainder was reduced to thick gravy. The thick, salty extract was then packaged and shipped to Europe for consumption (Finlay 1992, 408). "Liebig" still exists today as a brand in Belgium; however, I can find no evidence of a modern-day *Fleischextrakt*.

⁵⁰ It unclear from the advertisement whether the idea behind it is that Liebig's product is made from the meat of wild bulls, or that it will give you the strength of ancient Teutons, or both, or neither. Liebig's company produced thousands of such advertising trading cards and many of them have little to do with the product itself. Some feature pictures of Samoan villagers, others three boys dressed as girls with the caption "Wo sind die drei Knaben?" and another featuring a clown at a masquerade party.

muscular tissues. The connection with muscle brought along connotations of strength, vitality, and masculinity that one can see evidence for in the visual associations between beef, primordial life, and manly lustiness. Other nineteenth-century chemists and dietary experts endorsed these associations. Even Michael Foster, who tried to remain agnostic on the controversial question of vegetarianism, conceded the associations between meat consumption and vitality, activity, and men's health (Foster 1888, 844).⁵¹



Figure 1.1 Very Nietzschean advertisement for Liebig's *Fleischextrakt*

It is unknown if it was the promise of strength and vitality that convinced Nietzsche to incorporate a quarter teaspoon of Liebig's *Extrakt* into his dietary regime in 1877. While Liebig's product may have initially promoted itself on the idea that beef extract promoted

⁵¹ Foster raised doubts at the end of his *Textbook* about the idea that nitrogenous materials were directly linked to muscle production and strength. Yet, he nonetheless agreed that there was meat had a greater nitrogenous content than vegetable matter and endorsed beef teas and meat extracts (later Liebig's *Fleischextrakt*, specifically) as important for diet. He argued that the organic and inorganic salts and extractives should be considered "necessary daily medicines" (Foster 1888, 837).

strength muscle development, by the 1870s Liebig found himself defending his *Fleischextrakt* from scientific criticism.⁵² An 1872 article in *The Medical Times Gazette* featured Liebig's response to a critical paper given by Dr. Edward Smith at a meeting of the British Association. In his reply Liebig aggressively defends the nutritive value of the extract, which he likens to coffee and tea in their ability to, "stimulate a jaded brain and nervous system" (*Medical Times Gazette* 1872, 389). While Liebig might have begun by marketing the *Fleischextrakt* as a meat substitute, by the 1870s he was promoting it as stimulant, "credited with aiding digestion, assimilation of food, and mental alertness" (Finlay 2004, 412). It is likely that when Nietzsche incorporated Liebig's product into his diet in 1877 he had heard of its stimulating virtues rather than its dubious status meat replacement. Lesley Chamberlain tells us that Nietzsche "expressly associated *Liebischer Fleischextrakt* with periods of astonishing activity" (Chamberlain 1996, 15).⁵³ Nietzsche's flirtations with Liebig's product and other dietary regimes show that he really, truly believed that diet could affect the mental functioning of a philosopher. Rather than disregard his references to diet as blustering rhetoric, we can recognize that the associations exploited in Liebig's promotional material were part of Nietzsche's philosophy.

In what is likely his most famous reference to diet, Nietzsche harnesses the normative power and cultural connotations of eating meat to support his anti-Christian, anti-ideal stance. "On the spirit of gravity" from the third part of *Thus Spoke Zarathustra* Nietzsche, speaks in the voice of the free spirit, enemy of the spirit of gravity:

My stomach – it must be the stomach of an eagle? Because what it loves best is flesh of lamb. Certain at least, it is the stomach of a bird. Nourished by innocent things and by little, ready and impatient to fly (Z 153).

⁵² Finlay marks the beginning of scientific suspicions about the nutritive value of Liebig's meat extract beginning around 1865 (Finlay 2004, 410).

⁵³ I have been unable to verify this citation in Nietzsche's writings.

The aeronautical free spirit is not pinned down by Christian *gravitas*, and lives on the flesh of lambs: innocent, Christly animals. The free spirit has the powerful, carnivorous appetite of birds of prey. The statement is a clear invocation of Nietzsche's "Anti-Christ" or "Anti-Christian." It is also a dietetic injunction against heavy, (German) cuisine and vegetarianism, both of which resonated on cultural and personal levels for Nietzsche.⁵⁴

In a recent paper, Gregory Moore extracts the anti-Wagnerian connotations that eating meat would have had for Nietzsche (Moore 2000). In essays like "Religion and Art" and "Herodotus and Christendom" Wagner advertised the virtues of vegetarianism for the Aryan Christian (Moore 2000, 11). According to Wagner's story, in the aftermath of antediluvian geological upheavals a race of Semites fell by indulging in flesh-eating and cannibalism. The, prior to that, pure Aryan race was corrupted by interbreeding with the Semitic race, and the gradual degeneration of humanity ensued. The spiritual rejuvenation that Wagner advocated was to be attained, in part, through vegetarianism (*ibid* 12).

Nietzsche's counter-myth undercut Wagner's Christian fable in two ways. First, Nietzsche emphasized the historical-racial links between Judaism and Christianity; appealing to the categories of Aryan and Judeo-Christian rather than Aryan and Semite. Second, he made the Aryans the true "predatory" race and attributed their fall to inter-breeding with the Judeo-Christians (*ibid* 13). On Nietzsche's story, vegetarianism was degenerative for both the health and virtue of the human race; it was predation that should be considered a virtue and a means to rejuvenation. As noted above, in the medical literature of the time meat was seen to have both strengthening and revitalizing qualities for fatigued body and enervated will. Nietzsche's critique of Wagner's Christian vegetarianism, no doubt informed by the dietetic literature he (Nietzsche) had read, possessed more than metaphorical punch. The free-spirit's appetite for lamb flesh was

⁵⁴ At one point in his life, when he was still on good terms with Wagner, Nietzsche experimented with vegetarianism. The experiment did not last long.

a dietetic injunction against the Christian in service of ascetic ideals. In this famous passage from Zarathustra, Nietzsche exploited the scientific and cultural associations of specific dietary regimes to criticize the ascetic ideal.

Chapter 4: Conclusion

I have tried to demonstrate the relevance of the vocabulary of life, health, and digestion for Nietzsche's critique of values, specifically the value of truth. I have argued that a particular notion of health was important for his critical arguments, and that it did considerable rhetorical work in his revaluation of ascetic truth and the discipline of philosophy. Borrowing from contemporary physiology, he used the language of digestion to critique ascetic truth and traditional philosophy according to the standards of life and health. On my interpretation, the first part of Nietzsche's critique assessed the value of truth in the history of philosophy, according to which the value of truth has typically trumped that of bodily health. This, Nietzsche believes, has resulted in a modern intellectual tradition that is weak, impoverished, and incapable of coming to terms with world as it stands. This degeneration is not simply intellectual, but physiological, on Nietzsche's view. The second part of the critique provided a positive account of the value of truth according to the standards of life and bodily health. For truth to be of value it must be interpreted in ways that allow us to grow and transform ourselves; as living creatures, we must strive to incorporate truth and assimilate it for the purpose of engaging with our environment and overcoming obstacles. Incorporated truth is in service of healthier and more robust life. This vocabulary, and the credibility it would have had for Nietzsche's audience, largely derived from nineteenth-century physiology. Nietzsche's understanding of life as active, assimilating, and ever expanding through struggle was based on the theories of men like Roux, Rolph, and Foster, particularly their thoughts on protoplasm.

The use of digestive and dietary health in his critique of truth for life conforms to Nietzsche's intellectual context and his own personal experiences. Writing off such language as philosophically uninteresting risks misconstruing Nietzsche's critical project in terms that would

have been alien to him. If what we want as scholars is to understand Nietzsche's project, we are not justified in simply projecting our standards of intelligibility upon the language he employs.

The present study may be considered an exercise in "philosophy studies," a term coined by Francesca Bordogna to describe a method of interpretation in the history of philosophy that, like science studies, approaches its object of study as an activity performed by human beings with bodies in time and space, amidst specific material, social, cultural, and economic conditions. The methodological point underlying this whole exercise, as well as Nietzsche's own critique is, quite simply, philosophers, too, have bodies. While this point seems obvious, the account of Nietzsche and his critique of truth that emerges from the present study, guided by this methodological consideration, is glaringly different from those typically offered by Nietzsche's philosophical interpreters (see, Anderson 1999). The Nietzsche on offer here is a reader and interpreter of natural science who used the cutting edge science of his day, and his own experiences as a philosopher with an unruly stomach to construct a critique of the purely passive intellectual life; a life that was understood to be the ultimate expression of the self-inflicted malaise of modernity. His critique of truth was rooted in the concerns of his time and in his own struggles to philosophize while dealing with chronic health problems. When one approaches his work, bearing in mind the methods and orienting assumptions of science studies, Nietzsche emerges as a thinker that used very "timely" resources to produce an "untimely" critique.

Bibliography

Works by Nietzsche

- BGE *Beyond Good and Evil: Prelude to a Philosophy of the Future*. Trans. Judith Norman. Cambridge: Cambridge University Press, 2002 (1886). Print.
- EH *Ecce Homo. The Anti-Christ, Ecce Homo, Twilight of the Idols and Other Writings*. Trans. Judith Norman. Cambridge: Cambridge University Press, 2005 (1888). Print.
- GS *The Gay Science*. Trans. Adrian Del Caro & Josefine Nauckhoff. Cambridge: Cambridge University Press, 2001 (1887). Print.
- GM *On the Genealogy of Morality: A Polemic*. Trans. Maudemarie Clark & Alan Swensen. Indianapolis: Hackett Publishing Company Inc., 1998 (1887). Print.
- TW *Twilight of the Idols. The Anti-Christ, Ecce Homo, Twilight of the Idols and Other Writings*. Trans. Judith Norman. Cambridge: Cambridge University Press, 2005 (1888). Print.
- Use and Disuse “On the Uses and Disadvantages of History for Life.” *Untimely Meditations*. Trans. R. J. Hollingdale. Cambridge: Cambridge University Press, 1986 (1874). Print.
- WP *Will to Power*. Trans. Walter Kaufmann and R. J. Hollingdale. London: Wiedenfeld and Nicolson, 1967. Print.
- Z *Thus Spoke Zarathustra*. Trans. Adrian Del Caro. Cambridge: Cambridge University Press, 2006 (1883-5). Print.

Works by Other Authors

- Acampora, Christa Davis. “Paws, Claws, Jaws, and Such: Interpretation and Metaphoric Modalities.” *A Nietzschean Bestiary: Becoming Animal Beyond Docile and Brutal*. Eds. Christa Davis Acampora and Ralph R. Acampora. Oxford: Rowman and Littlefield Publishers Inc., 2004. 285-300. Print.
- Anderson, R. Lanier. “Nietzsche’s Views on Truth and the Kantian Background of his Epistemology.” *Nietzsche, Epistemology and the Philosophy of Science*. Eds. Babette Babich and Richard S. Cohen. Dordrecht: Kluwer Academic Publishers: Dordrecht, 1999. 47-60. Print.
- “Overcoming Charity: The Case of Maudmarie Clark’s *Nietzsche on Truth and Philosophy*.” *Nietzsche-Studien* 25 (1996): 37-41. Print.

- “Nietzsche on Truth, Illusion, and Redemption.” *European Journal of Philosophy*, 13:2 (2005): 185-225. Print.
- Babich, Babette. *Nietzsche's Philosophy of Science: Reflecting Science on the Ground of Art and Life*. New York: State University of New York Press, 1994. Print.
- Beard, George C. “Neurasthenia, of Nervous Exhaustion.” *Before Freud: Hysteria and Hypnosis in Later Nineteenth-Century Psychiatric Cases*. Ed. Lilian Furst. Lewisburg: Bucknell University Press, 2008. 45-53. Print.
- Blondel, Eric. *Nietzsche: The Body and Culture*. Palo Alto: Stanford University Press, 1991. Print.
- Bordogna, Francesca. *William James at the Boundaries: philosophy, science, and the geography of knowledge*. Chicago: University of Chicago Press, 2008. Print.
- Brain, Robert M. “Protoplasmania: Vibratory Organism and ‘Man’s Glassy Essence’ in the Later Nineteenth Century.” *Zeichen der Kraft: Wissensformationen 1800-1900*. Eds. Thomas Brandstetter & Christof Windgätter. Berlin: Kadmos Verlag, 2008a. 198-227. Print.
- “The Pulse of Modernism: Experimental Physiology and Aesthetic Avant-Gardes circa 1900.” *Studies in History and Philosophy of Science* 39 (2008b). 393-417. Print.
- “How Edvard Munch and August Strindberg Contracted Protoplasmania: Memory, Synesthesia and the Vibratory Organism in Fin de Siècle Aesthetics.” *Interdisciplinary Science Reviews* 35:1 (March 2010). 7-38. Print.
- Brobjer, Thomas H. *Nietzsche's Ethics of Character: a study of Nietzsche's ethics and its place in the history of moral thinking*. Uppsala: Uppsala University Press. 1995. Print.
- “Nietzsche’s Reading and Private Library.” *Journal for the History of Ideas* 4 (1997), 663-693. Print.
- “Nietzsche's Reading and Knowledge of Natural Science: An Overview.” *Nietzsche and Science*. Eds. Gregory Moore and Thomas Brobjer. Aldershot: Ashgate Publishing, 2004. 21-50. Print.
- *Nietzsche's Philosophical Context: An Intellectual Biography*. Chicago: University of Illinois Press, 2008. Print.
- Brown, Richard S.G. “Nietzsche: That Profound Physiologist.” *Nietzsche and Science*. Eds. Gregory Moore and Thomas Brobjer. Aldershot: Ashgate Publishing Company, 2005. 51-70. Print.
- Chamberlain, Lesley. “A Spoonful of Dr. Liebig's Beef Extract.” In *Times Literary Supplement* 4871 (1996): 14-15. Print.

- Clark, Maudmarie. *Nietzsche on Truth and Philosophy*. Cambridge: Cambridge University Press, 1990. Print.
- Finlay, Mark R. "Quakery and Cookery: Justus von Liebig's Extract of Meat and the Theory of Nutrition in the Victorian Age." *Bulletin of the History of Medicine*, 66:3(1992): 404-418. Print.
- Foster, Michael. *A Textbook of Physiology*. Cambridge: C. J. Clay, M.A. & Sons, 1888. Print.
- Foucault, Michel. *The History of Sexuality, Volume. II: The Use of Pleasure*. New York: Vintage Books, 1990. Print.
- Gayon, Jean. "Sexual Selection: Another Darwinian Process." *Compte Rendus Biologies*, 333 (2010): 134-144. Print.
- Gerard, John. *The Herball; or Generall historie of plantes. Gathered by John Gerarde... very much enlarged and amended by Thomas Johnson...* London: Adam Islip, Joice Norton and Richard Whitakers, 1636. Print.
- Gilman, Sander L. "Otto Eiser and Nietzsche's Illness: A Hitherto Unpublished Text." *Nietzsche Studien*, 38 (2009): 396-409. Print.
- Holmes, Frederic L. "The Paradox for Retrospective Insight." *Historiography of Contemporary Science and Technology*. Ed. Thomas Söderqvist. Amsterdam: Harwood Academic Publishers, 1997. 165-178. Print.
- Janet, Paul. "Schopenhauer et la physiologie française. Cabanis et Bichat." *Revue des deux mondes*, May 1 (1880): 35-59. Print.
- Kaufmann, Doris. "Neurasthenia in Wilhelmine Germany." *Notes on Cultures of Neurasthenia: From Beard to the First World War*. Eds. Marijke Gijswijt-Hofstra & Roy Porter. Amsterdam: Rodopi, 2001. 161-176. Print.
- Kottow, Michael H. "Letter from Germany." *Journal of Medical Ethics*, 8 (1982): 44-47. Print.
- Lampl, Hans Erich. "Ex Oblivione: das Féré-Palimpsest." *Nietzsche Studien*, 15 (1986): 225-264. Print.
- Lemm, Vanessa. *Nietzsche's Animal Philosophy: Culture, Politics, and the Animality of the Human Being*. New York: Fordam University Press, 2009. Print.
- "Life." *Encyclopedia Britannica*. 1911. Classic Encyclopedia. 3 August 2011. <<http://www.1911encyclopedia.org/Life>>
- Moore, Gregory. *Nietzsche, Biology, Metaphor*. Cambridge: Cambridge University Press, 2002. Print.

- “Nietzsche, Medicine and Meteorology.” *Nietzsche and Science*. Eds. Gregory Moore & Thomas Brobjer. Aldershot: Ashgate Publishing Inc., 2004. 71-90. Print.
- Müller-Lauter, Wolfgang. “The Organism as Inner Struggle: Wilhelm Roux’s Influence on Nietzsche.” *Nietzsche: His Philosophy of Contradictions and the Contradictions of his Philosophy*. Trans. David J. Parent. Chicago: University of Illinois Press, 1978. 161-182. Print.
- Nehemas, Alexander. *Life as Literature*. Cambridge, MA: Harvard University Press, 1985. Print.
- Pick, Daniel. *Faces of Degeneration: A European Disorder, c. 1848-1918*. Cambridge: Cambridge University Press, 1989. Print.
- “Maladies of the Will: Freedom, Fetters and the Fear of Freud.” *Medicine, Madness and Social History: Essays in Honour of Roy Porter*. Eds. Roberta Bivins and John V. Pickstone. New York: Palgrave Macmillan, 2007. 197-209. Print.
- Pippin, Robert. *Nietzsche, Psychology, & First Philosophy*. Chicago: University of Chicago Press, 2010. Print.
- Plato. *Theataetus, Sophist*. Trans. Harold North Fowler. Cambridge, MA: Harvard University Press. 1961. Print.
- Podolsky, Scott and Tauber, Alfred. “Nietzsche's Conception of Health: The Idealization of Struggle.” *Nietzsche, Epistemology and Philosophy of Science: Nietzsche and the Sciences, Vol. II*. Eds. Babette Babich and Robert S. Cohen. Boston: Kluwer, 1999. 299-311. Print.
- Rabinbach, Anson. *The Human Motor: Energy, Fatigue, and the Origins of Modernity*. Berkeley: University of California Press, 1990. Print.
- Reginster, Bernard. *The Affirmation of Life: Nietzsche and Overcoming Nihilism*. Cambridge, MA: Harvard University Press, 2006. Print.
- Roelcke, Volker. “Electrified Nerves, Degenerated Bodies: Medical Discourses on Neurasthenia in Germany, circa 1880-1914.” *Notes on Cultures of Neurasthenia: From Beard to the First World War*. Eds. Marijke Gijswijt-Hofstra and Roy Porter. Amsterdam: Rodopi, 2001. 177-198. Print.
- Rolph, William. *Biologische Probleme: zugleich als Versuch zur Entwicklung einer rationellen* Leipzig: Verlag von Wilhelm Engelmann, 1884. Online book.
- Roux, Wilhelm. *Der Kampf der Teile im Organismus*. Leipzig: Verlag der Wilhelm Engelmann, 1881. Online Book.

- Schacht, Richard. *Nietzsche*. London: Routledge, 1983. Print.
- Schlüssler, W. H. *Abridged Therapeutics Founded Upon Histology and Cellular Pathology*. Trans. M. Docetti Walker. New York: Gavin Houston, 1888. Print.
- Scheler, Max. “Versuche einer Philosophie des Lebens. Nietzsche–Dilthey–Bergson.” *Gesammelte Werke*. 15 vols. Bern: Franke Verlag, 1955. Print.
- Schopenhauer, Arthur. *The World as Will and Representation*. Trans. E.F. J. Payne. New York: Dover Publications Inc., 1958. Print.
- Schreber, Daniel Gottlob Moritz. *Medical Indoor Gymnastics: a System of Hygienic Exercises for Home Use*. Trans. Herbert A. Day. Oxford: Williams and Norgate, 1899. Print.
- Shapin, Steven. “The Philosopher and the Chicken: On the Dietetics of Disembodied Knowledge.” *Science Incarnate: Historical Embodiments of Natural Knowledge*. Eds. Steven Shapin and Christopher Lawrence. Chicago: University of Chicago Press, 1998. 21-49. Print.
- *Never Pure: Historical Studies of Science as if It was Produced by People with Bodies, Situated in Time, Space, Culture, and Society, and Struggling for Credibility and Authority*. Baltimore: John Hopkins University Press, 2010. Print.
- “The Long History of Dietetics: Thinking about Food, Expertise, and the Self.” *Regimens of Bodily Health: Nutrition and Natural Knowledge*, 2011 HAPSAT Graduate Student Conference. Institute for the History and Philosophy of Science and Technology. Northrop Frye 003, University of Toronto, Toronto, March 17, 2011. Lecture.
- Shapin, Steven and Lawrence, Christopher. “Introduction.” *Science Incarnate: Historical Embodiments of Natural Knowledge*. Eds. Steven Shapin and Christopher Lawrence. Chicago: University of Chicago Press, 1998. 1-20. Print.
- Stark, Tracey. “Even Better than a Cow, O Zarathustra!” *Nietzschean Bestiary: Becoming Animal Beyond Docile and Brutal*. Eds. Christa Davis Acampora and Ralph R. Acampora. Oxford: Rowman and Littlefield Publishers Inc., 2004. 89-99. Print.
- Wahrig-Schmidt, Bettina. “Irgendwie, Jedenfalls Physiologisch: Friedrich Nietzsche, Alexandre Herzen (fils) und Charles Féré 1888.” *Nietzsche Studien*, 17 (1888): 434-464. Print.
- Williams, Bernard. “Introduction.” *The Gay Science with a Prelude in German Rhymes and an Appendix of Songs*. Cambridge: Cambridge University Press, 2002. vii-xxii. Print.

Young, Julian. *Friedrich Nietzsche: A Philosophical Biography*. Cambridge: Cambridge University Press, 2010. Print.