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The Soul of the Scientist of Man

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How does the character of the scientist differ from that of the humanist? The past century has seen an acceleration in the "scientization" of the humanities. The roots of this trend, as other contributors to this symposium have noted, are entwined with those of modernity itself. And while the tale of this turn has been told broadly before—the story of entire disciplines adopting the name, the method, and the underlying assumptions of modern science—little has been said of the change in the educators themselves. It is not just the method of inquiry and the substance of instruction that distinguishes these new scientists of man from the philosophical humanists who preceded them. The *character* of these new scholars is shaped by, and in turn shapes, what and how they learn and think and teach.

One of the earliest and most perceptive considerations of this shift within the academy appears in the writings of Friedrich Nietzsche, particularly in *Beyond Good and Evil* (1886). Nietzsche's exploration of this subject was motivated in large part by his own searing experiences over the preceding two decades. In 1869, at only twenty-four years of age, he was awarded a doctorate in classical philology—a discipline then at the vanguard of the scientization of the humanities. Shortly thereafter he was appointed to a professorship at Basel University where he was a respected and popular teacher of ancient language, philosophy, and literature. But his career prospects were dashed when advance copies of his first book, *The Birth of Tragedy* (1872), were met with universal condemnation in academic circles. His students abandoned him, and for the next six years he taught only sporadically at Basel, during which time he studied natural science and published a collection of essays and a book of aphorisms. In 1879, at the age of thirty-five, he retired from the academy for good because of health problems and spent the rest of his life living off a modest pension and writing the philosophical works for which he is best known today.

Several passages in Nietzsche's oeuvre take up questions connected to pedagogy. He did not assume—as we so often do now—that the best scholars and scientists will necessarily be the best teachers. "*Educators* are needed," he emphasized in his late book *Twilight of the Idols*, "*not* secondary-school teachers or university scholars—people forget this."

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According to Nietzsche, the people who belong behind college lecterns are "*educators who have educated themselves*: superior, noble minds, proven at every moment by their words and silences, representing culture which has grown *sweet*."

Nietzsche spells out some of his thoughts on education in the opening aphorisms of the sixth chapter of *Beyond Good and Evil*. This chapter is titled "We Scholars" and it contains Nietzsche's most explicit treatment of the differences between scholars who employ scientific method and technique and those philosophers who attempt to give a more comprehensive account of the human condition. For educators, Nietzsche's treatment of the dispositional differences between scientists and philosophers offers an account of two fundamental pedagogical alternatives: either one teaches objectively and scientifically as a value-neutral observer, or sympathetically and philosophically as an observer who embraces the fact that human beings have a moral stake in separating the true from the false. For students, Nietzsche's explanation of the difference between the scientific mindset and the philosophic mindset brings into focus the different educational pathways that can be traversed by those hungry for knowledge. By providing young people with a window into the different approaches of scientists and philosophers, Nietzsche shows them something about the kinds of thinkers they can expect to become under the respective influences of scientific and philosophic education.

The Growing Tower of Science

Nietzsche begins "We Scholars" by admitting that the subject of the status of science and philosophy is, for him, not just morally weighty but also personally significant:

> At the risk that moralizing will, here, too, turn out to be what it has always been—namely, according to Balzac, an intrepid *montrer ses plaies* [showing of one's wounds]—I venture to speak out against an unseemly and harmful shift in the respective ranks of science and philosophy, which is now threatening to become established, quite unnoticed and as if it were accompanied by a perfectly good conscience.*

As a former philologist—a scientist of ancient languages, as it were—who abandoned his scholarly ambitions for philosophic ones, Nietzsche has firsthand knowledge of the difference between the scientific and philo-

* Quotations from *Beyond Good and Evil* are based on Walter A. Kaufmann's translation (Vintage, 1966), with some slight alterations by the author.

sophic approaches to the study of the world. By venturing to remark on which approach holds the superior place he exposes his readers to the wounds he endured under academic siege at Basel and explains the thinking that led him to abandon the scientific way of life for the philosophic one. Indeed, by acknowledging the personal significance of the inquiry, Nietzsche has already signaled something important: he indicates that the discussion will not be undertaken from the objective perspective of a scientist but rather from the perspective of a philosopher who acknowledges and embraces the fact that *who* he is, his own particularities, will shape how he thinks about the world around him. "I am of the opinion," Nietzsche writes, "that only *experience*—which always seems to mean bad experience?—can entitle us to participate in the discussion of such higher questions of rank, lest we talk like blind men about colors."

And insofar as Nietzsche wants to spotlight the differences between science and philosophy, he calls his discussion in "We Scholars" an act of "moralizing" because it attempts to differentiate a better and truer pathway to knowledge from a worse and more misleading one. The way people answer the most serious questions that human beings can ask reveals much about the way they live their lives. We can take an objective or scientific view of these questions, in which we indefinitely postpone judgment about what is true and right in order to assemble ever larger collections of data. Or we can do our best to approach them from a view which acknowledges that being human means expressing preferences and making judgments instead of hewing indefinitely to neutrality. Our manner of thinking cannot help but condition our manner of living, and any discussion about the best manner of thought is to some extent a moral discussion about how one ought to live.

After drawing his reader's attention to the moral gravity of his task, Nietzsche gives a brief overview of science's rise to power. Modern science had already assumed the authoritative position it still occupies today as the undisputed provider of the most reliable truths about who we are and what kind of world we live in. In Nietzsche's telling, the science that was practiced in the late nineteenth century had "most happily rid itself of theology whose 'handmaid' it was for too long" (a reference to Francis Bacon's famous description of science as the "most faithful handmaid" to religion). Now, Nietzsche wrote, science was aiming "with an excess of high spirits and a lack of understanding to lay down laws for philosophy and to play the 'master' herself—what am I saying? the *philosopher*." Once modern science had liberated itself from theology's demand to investigate the richness of divine creation using scientific methods, it set its sights on

philosophy. The Cartesian plan of action was to drape modern science in the robes of the wise man so that it could play the role of a philosopher and set up rules for the direction of the mind. Such rules would establish scientific parameters for what could and could not be called knowledge, thereby forcing philosophy to become more like modern science in form and content. Moreover, by making the case that the pathway to true human happiness would be paved by new and ever more beneficial scientific discoveries, modern science enhanced its reputation in the eyes of ordinary people by promising them access to more tangible comforts than religious piety or philosophic virtue could provide.

This usurpation left the study of philosophy looking more like an extravagance than a serious attempt to ascertain truth—a position it continues to occupy at many universities today. "My memory," writes Nietzsche, "the memory of a scientific man, if you'll forgive me—is bulging with naïvetés of arrogance that I have heard about philosophy and philosophers from the lips of young natural scientists and old physicians." Among the men of science who deride the study of philosophy Nietzsche finds "specialists and nook dwellers" who instinctively resist any kind of synthetic enterprise; "industrious workers" who resent the ease with which great philosophers explain complex problems; and "colorblind utility men" who think philosophy is a big waste, amounting to nothing more than a series of refuted systems that do no one any good. The success of their attacks on philosophic thinking and learning led many of the most promising young minds of Nietzsche's era to turn away from philosophy in pursuit of more narrow scientific ambitions.

But despite modern science's great success in wrenching control of the realm of human knowledge away from philosophy, Nietzsche concludes that responsibility for the shift in rank cannot be attributed to science alone. "Taking a large view," he says, "it may have been above all what was human, all too human, in short, the wretchedness of the most recent philosophy itself that most thoroughly damaged respect for philosophy." Just as many of today's most prominent public intellectuals lay claim to the title of philosopher without having contributed anything meaningful to the legacy of Western philosophy, many self-absorbed scholars writing at the end of the nineteenth century referred to their work as philosophy even though it contained little in the way of real thought. "Let us confess," says Nietzsche, "how utterly our modern world lacks the whole type of a Heraclitus, Plato, Empedocles, and whatever other names these royal and magnificent hermits of the spirit had; and how it is with considerable justification that, confronted with such representatives of philosophy as

are today, thanks to fashion, as much at the top of the heap as they are in reality on the bottom…a solid man of science is *permitted* to feel that he is of a better type and descent."

If a person possessing a mind on par with Heraclitus and Plato ever happened to come along, Nietzsche feared that he might find contemporary philosophy so unattractive and the study of scientific minutiae so time-consuming that he would never realize his philosophic potential. "The height and width of the tower of science has grown to be enormous," he writes, "and with this comes the probability that the philosopher grows weary while still learning or allows himself to be detained somewhere to become a 'specialist'—so he never attains his proper level, the height for a comprehensive look." On the basis of his own scholarly experience, Nietzsche concludes that great philosophic minds risk losing the capacity to say something meaningful about the world when they devote their lives to obscure matters that are of little interest to the rest of humanity. By encouraging students to spend decades of their lives in narrow fields of study, scientific scholars impair the human capacity for comprehensive thinking and deprive the world of the kinds of people who are most likely to be able to make meaningful sense of it.

Taking Man Out of the Picture

Of course, few among us are likely to become great philosophers. What then can Nietzsche's discussion of scientists and philosophers teach those of us who are trying to determine the standpoint from which we ought to approach the problems and questions that confront every human being?

To begin, Nietzsche teaches us that we ought to approach these problems and questions from the standpoint of precisely what we are—that is, from the standpoint of beings whose lives consist in affirming, denying, preferring, and loving—and not from the standpoint of scientific objectivity or neutrality. Later in the same chapter, near the beginning of an aphorism in which he describes how the study of science can do violence to the human soul, Nietzsche writes:

> However gratefully we may welcome an *objective* spirit—and is there anyone who has never been mortally sick of everything subjective and of his accursed ipsissimosity [very-ownness, self-obsession]—in the end we also have to learn caution against our gratitude and put to a halt the exaggerated manner in which the "unselfing" and depersonalization of the spirit is being celebrated nowadays as if it were the goal itself and redemption and transfiguration.

While Nietzsche admits that a purely objective approach to the world can be a useful and welcome alternative to one conditioned by our own thoughts and feelings, he warns that such an approach should be used moderately—as when we've grown mortally sick of our own inner experience—and should not be mistaken for, or held up as, an intellectual ideal. For insofar as maintaining perfect objectivity requires us to silence our capacities for personal preference and remove every trace of our "self" from our attempts to think about the world, it requires us to deny the fundamental fact that each of us is a living body whose actions in the world are guided by the demands of a unique consciousness that we do not share with other living bodies. To put it another way, being alive means being in possession of a "self" that is palpably different from every other self, and any attempt to depersonalize, objectify, or "unself" that self amounts to a denial or condemnation of life in its most basic form. The starting point for acquiring accurate knowledge about life cannot be the objective perspective because taking an objective perspective requires us to deny one of life's most fundamental characteristics; namely, that being alive consists in being a self who expresses some measure of interest during every living moment.

Indeed, in the first chapter of *Beyond Good and Evil* Nietzsche suggests that living could perhaps be defined as "estimating, preferring, being unjust, having limits, and wanting to be different." An act as simple as going to the grocery store and selecting the best apple from among the many apples that are available is proof enough that even in the most mundane matters human beings are compelled to prefer and reject. This same principle holds true on a deeper level when we consider the kind of thing that human love is. A husband who is truly in love with his wife prefers *her* companionship to that of all other women, and to this degree he holds a very noble and very refined kind of prejudice because he denies many perfectly good candidates the chance to be recipients of his attention. By preferring his own wife to every other woman he tacitly betrays the fact that not every deserving lady is entitled to the deepest love that he can give; his wife presumably prefers him to reject the advances of others who seek that love for themselves. It is considerations like these that lead Nietzsche to conclude that a man who managed to shape his mind into the ideal of scientific objectivity would be incapable of love "as God, woman, and animal" understand it because he would be unable to express the strong preferences and partialities that these kinds of beings demand from those who claim to love them. A model of scientific objectivity who tried to love deeply would "do what he can and give what he can," Nietzsche

says, "but one should not be surprised if it is not much—if it is just here that he proves inauthentic, fragile, questionable, and worm eaten. His love is forced, his hatred artificial."

Human beings are not objective creatures and it is folly to think, as the scientist does, that we could understand the world more accurately if we could but remove ourselves from it. When we turn off (so to speak) human nature in our attempts to make sense of the natural world, we are left with a skewed interpretation that does not sufficiently account for the fact that we ourselves are active pieces of the very natural whole that we are trying to make sense of. Observation may be a crucial part of any attempt to articulate a synthetic understanding of our world, but observing is not the same as understanding. For this reason, Nietzsche says that "the ideal scholar in whom the scientific instinct, after thousands of total and semi-failures, for once blossoms and blooms to the end, is certainly one of the most precious instruments there are," but "he is only an instrument, let us say, he is a mirror—he is no 'end in himself.'"

Indeed, we can learn much about the way that the study of science affects the human soul by considering what an "ideal scholar" would look like if he developed in perfect accord with the scientific demand for objectivity. Such a person would be a valuable instrument for anyone seeking knowledge because he would be capable of reflecting the world back at itself with extraordinary precision and clarity, and by looking into his mirror we could gain access to a great deal of information that would assist us in our pursuit of truth. The ideal scholar himself, however, would be barred from making judgments about the meaning of the information he provided because doing so would violate the principle of objectivity upon which the integrity of his observations depend. Nietzsche says that the ideal scholar and scientific man is not an "end in himself" or an intellectual model because upon closer inspection of his mind we find that, much like a mirror, he gives the illusion of depth precisely because he is flat.

As a consequence of the fact that he identifies the act of learning with the act of mirroring, the ideal man of science is willing to study whatever is set down in front of him without demanding any personal benefit or insight from that study. "It is almost a matter of total indifference whether his little machine is placed at this or that spot in science," writes Nietzsche, "and whether the 'promising' young worker turns himself into a good philologist or an expert on fungi or a chemist: it does not *characterize* him that he becomes this or that." Unlike students of philosophy who undergo profound personal changes as they wrestle with questions of great moral and spiritual significance, the most deeply held beliefs of

young scientists are not called into question by the collection and organization of scientific data. Whereas scientific methodology demands that we ignore our personal opinions for the sake of scientific integrity, the study of philosophy focuses our attention on these very opinions and forces us to give a rational defense of them in the face of competing alternatives. In this way, studying philosophy encourages a non-objective or "unscientific" style of thinking that can remedy the dehumanizing effects of excessive exposure to scientific education.

"In the philosopher," Nietzsche says, "there is nothing whatever that is impersonal; and above all, his morality bears decided and decisive witness to who he is." The teaching of every great philosopher is to some degree an expression of the way he lives his life, and his thoughts and writings serve as a testament to the kind of person he is deep down. The scientist, by contrast, is said by Nietzsche to "recollect 'himself' only with effort and often mistakenly." In his search for universal laws of science he grows so accustomed to thinking in generalities that he loses his ability to acquire the most specific kind of knowledge there is: self-knowledge. "Whatever remains in him of a 'person' strikes him as accidental, often arbitrary, and still more often disturbing," says Nietzsche, "to such an extent has he become a passageway and reflection of strange forms and events."

The man of science is so out of touch with his own emotions that when his mood appears cheerful Nietzsche surmises that it is not because he knows what his soul requires for happiness but rather because he "lacks fingers and handles for *his* need[s]" and chooses to ignore or deny them instead of confronting them head on. "The sunny and impartial hospitality with which he accepts everything that comes his way, his type of unscrupulous benevolence, of dangerous unconcern about Yes and No—alas," Nietzsche sighs, "there are cases enough in which he has to pay for these virtues!" Finally, if the ideal man of science so thoroughly objectifies himself that he comes to believe he has earned the right to join the great scientist Leibniz in proclaiming "*Je ne méprise presque rien* [I despise almost nothing]," Nietzsche warns us that we "should not overlook and underestimate the meaning of that *presque* [almost]." For in despising *almost nothing* the scientific man makes an exception for the only thing he cannot mirror with accuracy: himself.

The New Philosopher

Nietzsche's criticism of the scientific approach does not mean that he spares the philosophers, of course. "What provokes one to look at all

philosophers half suspiciously, and half mockingly," he writes in the first chapter of *Beyond Good and Evil*, "is not that one discovers again and again how innocent they are—how often and how easily they make mistakes and go astray; in short their childishness and childlikeness—but that they are not honest enough in their work, although they all make a lot of virtuous noise when the problem of truthfulness is touched upon even remotely." According to Nietzsche, philosophers often pose as if they had discovered the truth through a disinterested and infallible dialectical process when in fact "they are all advocates who resent the name, and for the most part even wily spokesmen for their prejudices which they baptize 'truths.'" Whereas scientists "unself" themselves and remove all traces of the personal from their observations, philosophers put so much of themselves *into* their thoughts that they frequently fail to realize the degree to which their philosophy is "the personal confession of its author and a kind of involuntary and unconscious memoir."

Of course, when reading Nietzsche's criticisms of philosophy it is vital to remember that part of his ambition is to pave the way for a new kind of philosophy to be conducted by a new and more self-aware species of philosopher. These new philosophers will have "another and converse taste and propensity from those we have known so far"; Nietzsche dubs them "experimenters" or "attempters" because they will conduct their philosophic investigations in entirely new ways using heretofore unheard of approaches. "Are these coming philosophers new friends of 'truth'?" he asks in *Beyond Good and Evil*. "That is probable enough, for all philosophers so far have loved their truths. But they will certainly not be dogmatists." Although he regularly attested to the greatness of some philosophers—in *Human, All Too Human* (1878), he singled out for praise Epicurus and Montaigne, Goethe and Spinoza, Plato and Rousseau, and Pascal and Schopenhauer—Nietzsche believed that a crucial part of his own philosophic task was to review the work of the philosophers who came before and expose the ways in which their stubborn philosophic prejudices had led them astray.

For these and other reasons the question of what a philosopher *is* for Nietzsche remains unclear. "What a philosopher is, that is hard to learn because it cannot be taught" he says in *Beyond Good and Evil*, "one must 'know it from experience'—or one should have the pride not to know it." On the occasions in which Nietzsche does attempt to communicate something about who the philosopher is, he indicates that he is a begetter of thoughts and culture who "demands of himself a judgment, a Yes or No, not about the sciences but about life and the value of life." And it is on

precisely this point—pursuing knowledge for the sake of determining the value, character, and goodness of our own lives—that the contemporary university can benefit most from a reading of Nietzsche's remarks on the kinds of people that philosophers and scientists are. For when philosophy is studied in the spirit in which it is written, students are forced to come to terms with who they are and what they believe. An examination of life by way of philosophy requires a person to consider carefully the principles and causes that underlie every action he takes. Under the best circumstances, old books are not read for the sake of mere curiosity or to promote cultural diversity, but rather because they shape us into better people by challenging us to defend our views or adopt better ones.

Where science narrows our view, philosophy widens it. Where science demands that we specialize, philosophy encourages us to synthesize. For these reasons every academic discipline could benefit not only from a reconsideration of its relationship to philosophy, but from what might amount to the same thing: a reconsideration of its relationship to every other discipline. "Facing a world of 'modern ideas' that would banish everybody into a nook and 'specialty,'" writes Nietzsche, "a philosopher—if today there could be philosophers—would be compelled to find the greatness of man, the concept of 'greatness' precisely in his range and multiplicity, in his wholeness and manifoldness." This understanding of the fullness—the greatness—of the human being is precisely what our scientists, including our new scientists of man, neglect altogether. To recapture that understanding, we must set aside science and turn to philosophy once more, if we still can.