

OUR POSTHUMANITIES FUTURE: HEARING NIETSCHE ON THE PROBLEM OF SCIENCE

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In a recent characterization of the parameters of posthumanism, Professor Cary Wolfe calls upon Jacques Derrida as a means of framing one side of its methodological commitments. In the 1971 interview his *Posthumanities* webpage cites, Derrida emphasizes how we might criticize science “in the name of something other than *truth and science*,” and further, how science might look once “the metaphysical value of truth has been put into question.”¹ No doubt Wolfe is correct to note Derrida’s concerns here in connection with the future of the humanities. For what threatens this future most is the view that science should reign in the academy based on its ‘more rigorous’ modes of inquiry. Increasingly, administrators fall into step with a current political climate that sees the alpha and omega of higher education in job training, and in related ostensible, pragmatic endeavors. Yet, in this crescendo of utility exists a corresponding Odyssean will to ignore questions as to the possibility of knowledge, scientific or otherwise. And the reasons for these stopped-up ears have an equally unimaginative and circular basis: such problems ‘are no longer worth considering because they do not benefit science or technological progress’. Exacerbating this refusal to hear is the current generation of philosophical noddies, who, while knowing better, do nothing to dissuade us from the belief that scientific methods *can* discover truth on the basis of common-sense.² Given these attitudes, it is hardly surprising, despite Derrida’s ‘siren call’, that the humanities are attempting self-renewal. But as we re-imagine the humanities we must also understand that the positivist ‘template for knowledge’ remains at the helm. Thus, important though Derrida’s questions are for the humanities, post- or

otherwise, awakening the academy from its current methodological slumber requires more of an alarm than an enchanting song.

In the spirit of questioning the impact of Derridian doubts on scientific knowledge, at least one scholar suggests an alternative to his approach. In “Truth, Art, and Life: Nietzsche, Epistemology, Philosophy of Science,” Babette E. Babich (1999) points to two key difficulties in Derrida’s use of Nietzschean epistemology, the acknowledged inspiration for his apprehensions. First, she suggests, we must dispense with the idea that Nietzsche is a thinker who advocates a ‘weakened’ notion of truth (as Derrida and others have proposed). Second, we must apply Nietzsche’s critique of knowledge beyond the moral sphere. With this latter point, Babich argues that to limit Nietzsche’s relevance to social and ethical concerns is to effectively acquiesce to the fact-value distinction. Distinguishing facts from values allows the philosophical supporters of science to relegate ‘nonfactual’ concerns to a lower status. Analytic philosophy thereby uses the social deliberations of continental thinkers to justify their own interests as the more substantial, as being about ‘the real world of knowledge’ and about ‘facts’ (Babich 1999: 3-4). With this coercion in mind, Babich suggests that we draw on Nietzsche instead to assess the possibility that any such ‘facts’ about the ‘real world’ are available to science. Indeed, our doing so is justified on the basis of his own lifelong interest in “the problem of science” (Nietzsche 1967a: P2).³ As it turns out, the “problem” Nietzsche underscored long ago remains manifest in the current alliance between uncritical philosophy and science. Strange though it may sound to such ears, in a post-metaphysical age, Nietzsche championed the value of knowledge that was critical of its own assumptions.⁴ Thus, the current blithe acceptance of our ability to possess knowledge—the faith in a human capacity to *know* reality—would in his mind be tantamount to religious confidence (Nietzsche 1974: 344). Yet, this willingness to grant knowledge to ourselves today is

so complete that any questions about this possibility are faulted when they fail to adopt the very scientific methods at issue. Indeed, were he to consider the situation today, we can imagine from Nietzsche a vigorous shaking of the head.

On the basis that any worthwhile assessment of science must begin from a distinct set of suppositions, Nietzsche's approach to the "problem of science" is to understand it on the ground of art. But seeing science as art, for him, does not mean to appreciate it aesthetically, to find beauty in the objects it studies or in the elegance of its theories. Seeing science as art means precisely to assess critically its epistemological assumptions, to understand these assumptions in the context of life, as an expression of our anthropomorphic limits. More specifically, Nietzsche draws our attention to two related aspects of science as art. The first is its inventive or creative side in the classical sense of *techne*, an artful skill such as medicine, which can be taught and learned (Babich 1999: 5). The second connection between science and art, which will be my focus, relates to our capacity for knowledge, and here, Nietzsche goes behind the façade of the scientific enterprise, to its assumption of having access to 'facts', 'knowledge' or *episteme*. Deeply skeptical of this possibility, Nietzsche ties art to knowledge on the basis that "every law of nature is a sum of anthropomorphic relations" (KSA IV: 494). In what follows I will illustrate a few such "anthropomorphic relations" so as to clarify Nietzsche's contention that our current faith in scientific knowledge is an "all-too-human" belief.

A key sense in which science is best understood as art rather than knowledge lies in the unrecognized dissonance between its empirical object of study and the logical framework it calls into service. Armed with the deductive power of logic, science purports to reveal an empirical world by means of an unconditioned, law-like conceptual world. Yet, for Nietzsche (1967b: 625), such a world is little more than a set of surface "relations." The 'facts' brought to light by

concepts rooted in essential properties and their logical relations *seem* to bring us knowledge. Aside from the question of whether we are merely valuing what we are constitutionally compelled to do, however, the importance science attaches to what does not change, what does not contradict, represents a valuation of what we deem to be more important *for us*: the unconditional over the contingent aspects we experience of the world. Although scarcely conceived by science and analytic philosophy, Nietzsche asks whether the empirical world science seeks to know is not rather one of ongoing change, of creation and destruction, or of Becoming? Against these constantly shifting elements, scientific knowledge—in spite its empirical foundations—remains committed to a Platonic ideal of truth that selects and emphasizes but a superficial portion of this apparent complexity. In relation to the change of Becoming, this invisible, static form of reference is scarcely more than a pretentious veneer. Granted, we may require such order for our own survival and growth; but we have no right to kneel before ‘truth itself’ on the basis of our own needs and capacities. From the perspective of life, rational science is an artistically constructed world of lawful consistency, an abbreviation far-removed from the world it claims to know. To this extent, scientific knowledge is and will remain a false, illusory world that simply flatters itself by thinking it can possess what is ‘true’.

At the same time, we must be careful not to misunderstand Nietzsche’s intentions regarding natural science. As scholars have come to recognize, in addition to having something of a positivist period himself, his avid reading of the science of his day included liberal borrowings and even outright plagiarism. Historical investigations by Crawford (1988), for instance, show a long list of scientific thinkers and philosophers of science whom Nietzsche read. These include such figures as Boscovitch, Du Bois-Reymond, Fechner, Gerber, Lange, von Hartmann, Helmholtz, Herbart, Mach, Meyer, Wundt, et al. Given Nietzsche’s praise of many of

these individuals we can dispense with the idea that he simply wishes to discredit science. A more accurate appraisal would be that he values the discipline and honesty of natural science yet rejects its acceptance of an unqualified truth and its ideal of a neutral observer. In this vein, Nietzsche often refutes the possibility of unconditioned knowledge, insisting that, even if there were pure knowing, “to a purely cognitive being, knowledge would be a matter of indifference” (1996: 98). What should receive a more candid assessment, he thinks, are the *conditions* of human knowing; and indeed, Nietzsche sometimes uses his understanding of science to critique its epistemological assumptions. One example seem particularly apt, since it both illustrates a second way in which science is better conceived as art, and also criticizes its presumption of ‘facts’ through the presence or absence of hearing.

At some point in the early 1870’s, one of the scientific experiments Nietzsche became captivated by was the work of the German physicist E. F. Chladni (1756-1827). Chladni’s experiments with sound show how various patterns emerge in sand placed on a metal plate when musical strings vibrate just below its surface. In his discussion of this phenomenon in “Truth and Lies,” however, Nietzsche is not so much interested in the science of these patterns as he is in demonstrating the non-logical relation between sense perception and knowledge claims (1990: 82-3). What he notes about these sand figures is the way they demonstrate our error in thinking that the ‘given’ of human sense-perception can provide knowledge beyond their mediation; in this case, knowledge of sound. To show this misapprehension, Nietzsche asks us to consider someone who has no sense of hearing. Such a person, he suggests, would, upon seeing the visual pattern in the sand, claim to *know* “sound” by what he or she *was* able to perceive; in other words, this person—like the scientist of today—would claim to have experienced sound and thus to have understood it. Yet, from the perspective of any hearer, it is obvious that the deaf person

is mistaken. In fact, the hearing person will take the deaf person as living under a false belief. Only with the power of hearing, they think, is it possible to *really know sound*. Of course, Nietzsche's point is precisely the refutation of this assumption. He contends, rather, that *the hearing person is also under the same false belief—and so, by extension, are all of us*. Those who have a complete set of senses are in the same position vis-à-vis the 'world' as is the deaf person. Consequently, both the hearer and non-hearer make the error of taking what is 'given' as adequate for knowledge of the world. Those with five senses do not recognize their mistake simply because there are no others around with more or different sense perceptions to 'illuminate' reality.

Therefore, the anthropomorphic bounds of our sense perceptions in relation to an assumption of knowledge is precisely what concerns Nietzsche. None of us can take the *extra-human* perspective that we see represented in the hearer's relation to the deaf person. No matter what machines we invent or use, no one can have this same (numerical or qualitative) advantage in sense perception. Thus, through Chladni and his science, Nietzsche seeks to describe both our epistemological limits and the error of *equating* knowledge with the 'given'. As embodied knowers, we simply can't get beyond our own physiological bounds—like the hearer in relation to the deaf person—so as to see the world as it 'really is' or indeed in any other way.

Again however, as Babich rightly points out, Nietzsche's rejection of the identity between knowledge and the 'given' need not lead to skepticism, pessimism or nihilism (1999: 4). His insight simply underlines the anthropomorphic conditions of knowing, which preclude any claims to 'knowledge itself'. Far from leaving us in a never-never land of subjective opinion, what he shows us is the impossibility of a relation to the 'given' that could be considered superior to other living beings. Nietzsche thereby rejects the uncritical position we currently see

in science and philosophy, which does little or nothing to disturb assumptions of identity between human ways of knowing and knowledge as such. Characterizing such faith at one point, he suggests that “only its possessor and begetter takes it so solemnly—as though the world’s axis turned within it. But if we could communicate with the gnat, we would learn that he likewise flies through the air with the same solemnity, that he feels the flying centre of the universe within himself” (1990: 79). Although Nietzsche describes this solemnity as a hubristic blinding fog, he is also well aware that there is little choice in the matter. No level of consciousness regarding our epistemological limits can change our anthropomorphic relation to the world. We require the ‘given’ in order to live, to develop or flourish as a species, but there is nothing that can entitle us to take the ‘given’ beyond ourselves. No arrangement of the ‘given,’ even under the most rigorous conceptual laws and scientific methods, can transcend these “anthropomorphic relations.”

As stated above, scientific knowledge creates a world of concepts and laws, and, as a result, transforms the world of Becoming into a stabilized, consistent world. But the regularity science reveres can never meet the standard of ‘factual’ knowledge. Simply because we impose patterns does not mean we have access to knowledge beyond human ways of knowing. These too are the result of our physiological limits. Regularity simply reflects the conformity of our species and our sense perceptions (which are themselves, for Nietzsche, interpretive of the world on the basis of need and desire). Although language reinforces the consistency of our sense perceptions, the order we admire so much in the stars or in chemical processes remains strictly anthropomorphic. As Nietzsche contends:

If each of us had a different kind of sense perception—if we could only perceive things now as a bird, now as a worm, now as a plant, or if one of us saw a

stimulus as red, another as blue, while a third even heard the same stimulus as a sound—then no one would speak of such a regularity of nature (1990: 87).

Thus, the regulated world of scientific conception is simply a schema we cannot throw off; it is certainly not sufficient as an expression of truth beyond human limits.

With this last thought in mind, we might interpret Nietzsche's anthropomorphic epistemology as a means for opening the door to a less domineering and less destructive relation between human and non-human lives. To see this, as noted, we must simply realize that his own interest in science "as a problem" neither embraces skepticism nor postmodern irony. Although directing his argument toward the barbarism of exclusively pragmatic interests, Nietzsche does not believe that a skeptical relation to the 'given' is possible. Far from threatening us with spectres of doubt and relativism, however, knowledge remains important to his epistemological position—so long as we dispense with our faith in a 'reality' that transcends *human ways of knowing*. In this sense, Nietzsche's science as art underlines the conditions of knowing in the context of life and nature. As such it offers an honest and less authoritarian knowledge than does the 'religion of science'. By emphasizing the rights we too eagerly assume as possessors of 'knowledge itself', Nietzsche allows us to reconsider how an unexamined will to truth can have negative consequences for the planet and its other species. In accepting that our own manner of knowing is but one of many, our knowledge in relation to the non-human may become less blind or absolute. So too, I think, once anthropomorphic limits are acknowledged throughout the academy will the humanities have a possible future.

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Endnotes

¹ For the other side of this posthumanities frame, Wolfe suggests we look to such works as Donna Haraway's "Cyborg Manifesto" and Francis Fukuyama's *Our Posthuman Future: Consequences of the Biotechnological Revolution*. The original interview with Derrida is taken from his *Positions* (p. 105, n.32). Derrida's questions to science were made in relation to historicism, i.e., the view that we can reduce human, cultural or social phenomena to historical facts. Nietzsche himself sees the scientist as the pursuer of truth.

² This "can" in relation to truth serves as the key for supporting uncritical science as the "gold-standard" by which all knowledge "should" be undertaken. Langer astutely characterizes the refuge from self-critique in the current incarnation of scientific positivism as "the least interesting of all doctrines, an appeal to common-sense against the difficulties of establishing metaphysical or logical 'first principles' " (1979: 14).

³ My citations follow the practice in Nietzsche scholarship of using aphorism numbers rather than page numbers. For examples of scholars pursuing the "problem of science," see the collection of essays in (Babich and Cohen 1999). Additional research on scientific knowing and objectivity can be found in the growing number of studies in the sociology of knowledge. See, for instance, Allan Megill, ed., *Rethinking Objectivity* (Durham and London: Duke UP, 1994).

⁴ This critical element is implicit throughout Nietzsche's writing. Yet, even in his effort to construct a new cultural vision, one can scarcely imagine any relinquishing of the intellectual conscience he so frequently advocates.