Reinhard Huetter, "POLYTECHNIC UTILIVERSITY: PUTTING THE UNIVERSAL BACK IN UNIVERSITY"
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University education delivers goods that are seen as commodities, as purchasable means to satisfy individual desires and solve collective problems. The knowledge it offers is a production, a *techne* that is a means to an end extrinsic to it. **All academic disciplines in the late-modern research university have become servile arts, and the university an accidental agglomeration of advanced research competencies gathered in one facility for the sake of managerial and logistical convenience**.

The ideal of a liberal education that carries its end in its very practice has been supplanted by an efficiency-driven program of knowledge making and a respective training in the communicative, mathematical, and scientific skills necessary for contributing to this knowledge making and applying it to ends dictated by individual and collective desires. **The university has morphed into a polytechnicum with a functionalized, propaedeutic liberal arts appendix, a community college on steroids, with undergraduate training subdivided into functionalized pre-med, pre-law, pre-engineering training and the "salad bar" consumer curriculum in the humanities**.

Let me call this the Baconian university, named after its *spiritus rector*, Francis Bacon. The American Association of Universities, the exclusive club of the nation's leading research universities, characterizes a research university as an institution that instills command for **real-world problems**. The research university combines cutting-edge research with training that is a preparation for the graduate work of highly specialized research programs. John Henry Newman had this model very much on his mind when he delivered his classic set of discourses on the "scope and nature of university education," delivered in 1852 to the Catholic intelligentsia in Dublin: "I cannot deny [that Bacon] has abundantly achieved what he proposed. His is simply a Method whereby bodily discomforts and temporal wants are to be most effectually removed from the greatest number."

This university is, of course, a thoroughly secular affair. As Brad Gregory aptly put it in The Unintended Reformation: "Regardless of the academic discipline, knowledge in the Western world today is considered secular by definition. Its assumptions, methods, content, and truth claims are and can only be secular, framed not only by the logical demand of rational coherence, but also by the methodological postulate of naturalism and its epistemological correlate, evidentiary empiricism."

Why should we care? Our late-modern society needs scholars, technicians, and experts to address the social, political, and environmental problems it has created, and the late-modern research university is able to deliver. The very success of the Baconian university carries in itself the seed of its own destruction. For if the current trend should come to its logical term—if indeed each of the advanced research competencies of the university could be located elsewhere, linked directly to companies and state labs—then the university in any substantive sense will have disappeared. To call the result of this transmutation a university would simply be an equivocation, undoubtedly useful for reasons of branding and marketing, but hardly for reasons of substance.

The university was once a unity per se that carried its end in its very practices of education and inquiry. It is now a unity *per accidens*, a contingent conglomeration of means that serve changing extrinsic ends, a knowledge corporation that sells goods of "know-how" in the service of ends determined by advanced techno-capitalist societies. The philosopher Benedict Ashley, educated in the early years of the University of Chicago's remarkable undergraduate program, writes in his magnum opus, The Way toward Wisdom: "The very term 'university' means many-looking-toward-one, and is related to the term 'universe,' the whole of reality. Thus, the name no longer seems appropriate to such a fragmented modern institution whose unity is provided only by a financial administration and perhaps a sports team."

This is where Newman's importance becomes most clear. His prophetic provocation offered a compelling account of the university as a unity per se—and with it a most timely appeal to theology's indispensability for the maintenance of this unity. He was a prophetic voice, a thorn in the flesh of the twentieth-century attempts at functionalizing the university to the ends of the modern bureaucratic nation-state, the communist program, the fascist state organization of the superior race and its will to power, or the desires of individual consumers in a permissive society.

Newman holds university education to be essentially liberal education—that is, education that carries its end in itself. While not necessarily embracing all or even most fields of knowledge—an obvious impossibility for quite a while now—liberal education is essentially philosophical in the sense that it fosters reflection upon one's knowledge in relationship to other fields of knowledge and in relationship to the whole. This makes liberal education a potentially universal education.

But such universal education requires a horizon of transcendence, where knowledge can be conceived as an interconnected whole with coherence. "Religious truth is not only a portion, but a condition of general knowledge. To blot it out is nothing short . . . of unraveling the web of University Teaching. It is, according to the Greek proverb, to take the Spring from out of the year, it is to imitate the preposterous proceeding of those tragedians who represented a drama with the omission of its principal part."

I would like to take a closer look at Newman's prophetic provocation by attending to three questions. First, what exactly does he mean by theology in the context of a university education? Second, why does he think theology to be indispensable for university education? And third, what might it mean to take his proposal seriously?

First, as to Newman's understanding of theo-logy and university education: The term "university," he notes, is essentially related to "universe" and as "to the range of University teaching, certainly the very name of University is inconsistent with restrictions of any kind. . . . A University should teach universal knowledge." No subject matter that conveys knowledge is to be excluded from university teaching. If a university excludes the subject of religion, either "the province of religion is very barren of real knowledge" or "one special and important branch of knowledge is omitted." Anyone advocating such an institution "must own, either that little or nothing is known about the Supreme Being, or that his seat of learning calls itself what it is not."

The secular university by and large insists upon the first alternative, that little or nothing is known about what Newman has called the "Supreme Being," if such a supreme being exists at all. Ideas about a supreme being might be studied, ideas that pertain to the anthropological phenomenon called "religion," a knowledge making that belongs to departments of religion. While Newman did not oppose empirical and historical study of the world's religions, he has something categorically different in mind when he speaks of "theology." By "theology" he means "the Science of God, or the truths we know about God put into system; just as we have a science of the stars, and call it astronomy, or the crust of the earth, and call it geology."

In short, when he invokes "theology" in the context of his university lectures he has in mind what classical Catholic theology calls the "preambles of faith," a scientific knowledge of God that belongs to metaphysics: a discourse with its inquiries, a knowledge of God that does not depend on revelation but that can be greatly enhanced, deepened, and corrected by revelation. If we asked Newman to point out some contemporary practitioners of this science in the English-speaking world, he would most likely point us to Richard

Swinburne, Nicholas Wolterstorff, Alvin Plantinga, John Haldane, David Braine, Peter Geach, Norman Kretzmann, Eleonore Stump, Benedict Ashley, Ralph McInerny, and others.

Aware that his position was already in the 1850s controversial in the English-speaking university world outside Oxford and Cambridge, Newman makes it explicit that "University Teaching without Theology is simply unphilosophical. Theology has at least as good a right to claim a place there as Astronomy." In this telling statement, he gives us a key for understanding his overall—ever pertinent—understanding of the proprium of a university education. If university teaching without theology is unphilosophical, what then would it mean for a university education to be philosophical? Does the addition of theology alone make it philosophical?

Newman gives us a clue in his sixth discourse, where he states that "the true and adequate end of intellectual training and of a University is not Learning or Acquirement, but rather, is Thought or Reason exercised upon Knowledge, or what may be called Philosophy." What differentiates a proper university education from training in a polytechnicum is thought exercised upon knowledge and upon the inter-relationship of sciences.

Newman states as much quite explicitly: "The comprehension of the bearings of one science upon another, and the use of each to each, and the location and limitation and adjustment and due appreciation of them all, one with another, this belongs, I conceive, to a sort of science distinct from all of them, and in some sense a science of sciences, which is my own conception of what is meant by Philosophy, in the true sense of the word, and of a philosophical habit of mind." What he has in mind here was traditionally called "first philosophy," prima philosophia.

Excluding theology from the university would require a metaphysical warrant that is, of course, impossible when metaphysics has been excluded along with natural theology, as the two are of one cloth. By establishing secularism as a normative criterion for admittance to the university, Newman observes, the university becomes unable to reflect philosophically on its secularist commitments.

Plato, Aristotle, and Aquinas, as well as their modern disciples and twentieth-century scientists like the physicist Carl Friedrich von Weizsäcker and the chemist Michael Polanyi, knew that any truly philosophical form of critical reflection presupposes a horizon that genuinely transcends and thereby enables such critical reflection. But Newman, together with all who are engaged in natural theology, knew that there are great disagreements inside this discipline and that it faces challenges no other science does because it deals with a subject that transcends all genera of academic subjects.

However, Newman would ask, why should these circumstances disqualify first philosophy and its acme, natural theology, as sciences? The fact that paleoanthropology lives more by hypotheses than by evidences, that neuroscience cannot fully account for human volition, that there is no cogent ontogenesis so far for the unique reality of "life," and that contemporary physics cannot reconcile quantum mechanics with the general theory of relativity does not prove that these inquiries lack the characteristics of a proper science and must therefore be excluded from the secular university's curriculum and research program. Newman holds that the science of theology is analogous to such sciences with one important difference: Its subject is related to the whole cosmos and to the totality of all facts and relations as cause is to effect.

Let me now turn to Newman's argument for the indispensability of theology for a proper university education, an argument with which he moves beyond the observation that by excluding theology from its curriculum the secular modern university betrays how unphilosophical it is—something most secular universities by now could not care less about.

Newman rightly assumes religious truth to surpass the knowledge available to the natural theo-logy of first philosophy. For, after all, the divine perfection investigated by natural theology entails the perfection that intentional, personal agency represents. But the only way to grasp fully this divine perfection—the providence of the Creator—is by way of attending to the surplus of religious truth embedded in Judaism, Christianity, and Islam: "Admit a God," he writes, "and you introduce among the subjects of your knowledge, a fact encompassing, closing in upon, absorbing, every other fact conceivable. How can we investigate any part of any order of Knowledge, and stop short of that which enters into every order? All true principles run over with it, all phenomena converge to it; it is truly the First and the Last . . . . You will soon break up into fragments the whole circle of secular knowledge, if you begin the mutilation with divine."

But he goes further and makes the bold claim that "Religious Truth is not only a portion, but a condition of general knowledge. To blot it out is nothing short . . . of unraveling the web of University Teaching." He makes good on this claim by constructing a *reductio ad absurdum* argument by way of an a fortiori analogy.

First, he establishes the fundamental relationship between objective truth and scientific inquiry. "Truth is the object of Knowledge of whatever kind; and when we inquire what is meant by Truth, I suppose it is right to answer that Truth means facts and their relations . . . . All that exists, as contemplated by the human mind, forms one large system or complex fact." The subject matter of theology allows the -understanding of the rest of reality as a whole, or universe, and consequently of all knowledge that can be gained as essentially interrelated, as an integral component of universal knowledge.

Second, Newman develops the first part of an analogy that in an uncanny way anticipates current initiatives to recast the curriculum in light of a normative evolutionary naturalism (though not necessarily materialism). As such, reason, volition, freedom, and spirit must be studied as, at best, aspects of the phenomenon of "consciousness" that emerges from or is a mere epiphenomenon to physical, chemical, and biological processes in light of which they must ultimately be accountable, and possibly predictable. As Newman states it: "Physical and mechanical causes are exclusively to be treated of; volition is a forbidden subject. A prospectus is put out, with a list of sciences, we will say, Astronomy, Optics, Hydrostatics, Galvanism, Pneumatics, Statics, Dynamics, Pure Mathematics, Geology, Botany, Physiology, Anatomy, and so forth; but not a word about the mind and its powers, except what is said in explanation of the omission."

History, political science, economics, literature and language, art history, musical theory, and last but not least, philosophy (insofar as it transcends logical positivism and the foundation of mathematics) can happily be eliminated from the curriculum. Because, Newman writes, "the moral and mental sciences" are "simply left as a matter of private judgment, which each individual may carry out as he will."

Newman writes of the professor who "ascribes every work, every external act of man, to the innate force or soul of the physical universe . . . . Human exploits, human devices, human deeds, human productions, all that comes under the scholastic terms of 'genius' and 'art,' and the metaphysical ideas of 'duty,' 'right,' and 'heroism,' it is his office to contemplate all these merely in their place in the eternal system of physical cause and effect. At length he shows how the whole fabric of material civilization has arisen from the constructive powers of physical elements and physical laws." Replace the physical-mechanistic framework with a biological-evolutionary one in Newman's illustration, and matters sound all too familiar.

Third, Newman completes his analogy with an a fortiori conclusion. Ignoring the reality of human reason and volition as proper motive causes would issue into "a radically false view of the things which he [the professor] discussed." If this is true, dismissing from the list of university subjects a reality infinitely superior to human reason and volition as a motive cause would have much graver distortive consequences. "Worse incomparably, for the idea of God, if there be a God, is infinitely higher than the idea of man, if there be man.

If to blot out man's agency is to deface the book of knowledge, on the supposition of that agency existing, what must it be, supposing it exists, to blot out the agency of God?"

In the current situation, as far as I can see, one could make a case that the faculties of the secular university are divided roughly along the lines of the Kantian antinomy between determinism and freedom. Predictably, the proponents of determinism are by and large at home in the hard sciences, the defenders of freedom by and large in the humanities.

The proponents of determinism are increasingly embracing a posthumanist outlook (especially in the biological sciences) in that they see the human being as a highly developed animal bent on maximizing the success of its species (an endeavor driven primarily by the study and technical application of the natural sciences). The proponents of freedom are increasingly embracing a transhumanist outlook by epitomizing freedom in the existentialist sense of freely designing one's own essence with the assistance of biotech-nology. Thus, human beings become their own designer choices. Human nature is subjected to techne, a Promethean liberation from our own nature—an exercise of a most radical freedom.

And here the extremes meet. For transhumanism is nothing but the most consistent instantiation of posthumanism, especially when the design is collectively applied and socially enforced. (My university has at least four genome centers, and the driving force behind them, including the financing, is of not a Platonic but a Baconian nature.) It is a dire picture, which also Aldous Huxley in Brave New World, Hans Jonas in The Imperative of Responsibility, Jürgen Habermas in The Future of Human Nature, and Pope John Paul II in his encyclical *Evangelium Vitae* have warned against.

For in the case of the posthumanist program, as well as in the case of the transhumanist program, university education loses its character as liberal education and turns into something completely different. It becomes a training in the servile arts—that is, in the kinds of expertise required for technical or managerial species optimization or for individually desired, technical, operative, or genetic-design features.

Friedrich Nietzsche, in his very late notebooks, seems to have anticipated both the posthumanist and the transhumanist implications of a purely secular utilitarian knowledge production: "There exists neither spirit, nor reason, nor thinking, nor consciousness, nor soul, nor will, nor truth: all are fictions that are of no use." Knowledge, he continues, "works as a tool of power" and, "as in the case of 'good' or 'beautiful,' the concept is to be regarded in a strict and narrow anthropocentric and biological sense. In order for a particular species to maintain itself and increase its power, its conception of reality must comprehend enough of the calculable and constant for it to base a scheme of behavior on it. The utility of preservation—not some abstract-theoretical need to be deceived—stands as the motive behind the development of the organs of knowledge; they develop in such a way that their observations suffice for our preservation."

His conclusion is stark: "In other words: the measure of the desire for knowledge depends upon the measure to which the will to power grows in a species: a species grasps a certain amount of reality in order to become master of it, in order to press it into service."

What Nietzsche predicts is the species-relevant polytechnicum. This is the posthumanist program. And when we include in the reality to be mastered human nature itself, we have the transhumanist program. Newman very ably perceived the radical implications hidden in the Baconian university that Nietzsche would lay bare a few decades later. The university as a humanist enterprise of education in universal knowledge is obviously passé. Francis Bacon, a longtime university tenant, has quietly opened the back door and beckoned Friedrich Nietzsche to enter.

Newman's prophecy is to the same degree utopian as the idea of the university itself is utopian. It might best be received as a norm, an ideal that serves as a criterion against which to assess the operative beliefs of late-modern research universities and their feeder institutions, the colleges. If Newman is right, a facile rejection of the critical norm that his Idea of a University advances might come with a high price: namely, living out the dystopian future of the comprehensive functionalization and commodification of the university and of university education.

If Newman indeed is right, the university resembles an arch: Its capstone stabilizes the whole edifice; remove it, and the arch collapses. All stones are still there in their distinct integrity, but now lie in a heap. While each stone has its integrity, the relationship between all of them is utterly unclear (excepting, of course, sub-coherences between mathematics and the natural sciences and among the natural sciences).

In this situation of a curricular and disciplinary heterogeneity and even confusion, several disciplines are advancing themselves as capstones or as a multidisciplinary capstone-configuration for the construction of a new arch. The strongest contender is probably an evolutionary materialism, or at least naturalism, that would stretch from astrophysics via biochemistry to neuroscience and a sociobiology extending itself into the humanities, to a naturalist philosophy of science. With such a configuration, the size of the arch shrinks considerably, as many of the stones of the former arch could not be integrated.

And the new structure would be haunted by the specter of Nietzsche. Instead of a proper methodological naturalism, now an unwarranted metaphysical naturalism would define the scope of this new arch. The knowledge making of the advanced animal Homo sapiens would then turn out to be nothing but a highly advanced form of tool making and tool using.

And consequently, in light of the newly imposed horizon of metaphysical naturalism, the most advanced university training would be nothing but a training in the servile arts, in a highly advanced "tool knowledge" of a technical or managerial sort in order to fix those kinds of things that can be fixed with the help of tools. Newman's warning consists simply in the reminder that the only thing that can save the university from the reductive distortions of metaphysical naturalism is the discipline that allows for the widest possible scope of truth. Only with theology as the capstone of the arch could the arch achieve this widest possible scope, could the university remain open to a maximum of interrelated and complementary sciences, could a university education remain in all areas of knowledge essentially philosophical, and could universal knowledge as an end in and of itself be secured.

In the end, I fear, we must choose one of two prophets, one proposing an all-too-unlikely utopia, the other announcing an all-too-likely dystopia. We may either struggle with Newman upstream toward the "idea" of a university or drift with Nietzsche downstream, allow ourselves to be carried away by the dominant currents, and resign ourselves to the "polytechnic utiliversity."

One thing is clear beyond doubt, though: Wherever theology, natural and revealed, is permitted to make its distinct contribution to universal education, it will without fail help us grasp the intrinsic value of the arduous journey upstream so that we may contemplate the source of all things. For, as the Second Vatican Council fathers wrote, "When God is forgotten, the creature itself grows unintelligible."

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