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NEWMAN'S UNIVERSE OF KNOWLEDGE: SCIENCE, LITERATURE, AND THEOLOGY

OF WHAT VALUE is Newman's *The Idea of a University*?—a classic argument for liberal as opposed to useful education? a brilliant apologia for theology as a branch of learning? a rational resolution of the nineteenth-century version of the two cultures debate? a perfect handling of a theory? Undoubtedly, Newman's masterpiece is valuable for each of these reasons. The thesis of this study, however, is that his work is valuable for each of these reasons because it is first valuable for a more profound underlying reason. The thesis is that so remarkably unified and coherent is Newman's philosophy that his ideas on a particular aspect of education are fully understandable and defensible only within the structure of his thought as a whole. More specifically, it is held that his ideas of a university, of a liberal education, of the rival sciences, are all ultimately derivable from and dependent upon his idea of the universe of knowledge that is itself grounded upon the primordial universe of existence. It is maintained that, unless his conception of the universe of knowledge is first grasped, the whole argument of *The Idea of a University* is reduced to an elegant exercise in Oxonian speculation.

Patterned after the universe of existence, Newman's universe of knowledge is indeed literally a uni-verse, exhibiting an underlying unity beneath and through its apparent multiplicity. The universe of knowledge mirrors the existential principle of unity by which all truths are radically interrelated and converge towards a common centre. Accordingly, for Newman the real unity of the different sciences is to be found not in their method (as was proposed by Bacon), nor in the mind's own unity (as was proposed by Coleridge), nor in their derivation from a single science, theology (as was proposed by Bonaventure), but rather it lies in their one subject matter. As Newman explains, "all branches of knowledge are connected together, because the subject-matter of knowledge is intimately united in itself, as being the acts and the work of the Creator" (*The Idea*, p. 99).¹ Or, again, as he explains in a longer passage,

All that exists, as contemplated by the human mind, forms one large system or

complex fact, and this of course resolves itself into an indefinite number of particular facts, which, as being portions of a whole, have countless relations of every kind, one towards another. Knowledge is the apprehension of these facts, whether in themselves, or in their mutual positions and bearings. And, as all taken together form one integral subject for contemplation, so there are no natural or real limits between part and part; one is ever running into another; all, as viewed by the mind, are combined together, and possess a correlative character one with another, from the internal mysteries of the Divine Essence to our own sensations and consciousness, from the most solemn appointments of the Lord of all down to what may be called the accident of the hour (*The Idea*, p. 45).

And, because all knowledge forms thus "one integral subject for contemplation" and because "there are no natural or real limits between part and part", it needs must be that the division of this vast cosmic subject matter into autonomous branches of knowledge (necessary though it be as an accommodation to the human way of knowing) is essentially artificial. As Newman further explains, in "word indeed, and in idea, it is easy enough to divide Knowledge into human and divine, secular and religious, and to lay down that we will address ourselves to the one without interfering with the other; but it is impossible in fact" (*The Idea*, p. 26). For, in fact, the human mind itself with its inveterate tendency to philosophize, to embrace comprehensive knowledge, not to be satisfied with merely partial explanations, resists such attempts to fragment the universe of knowledge.

The metaphor that Newman recurrently employs to represent the unity, the integrity of the universe of knowledge is the traditional one of the "circle of sciences", the "circle of knowledge", the "circle of philosophy". A few selective passages may serve to exemplify the particular ways in which he employs this metaphor. In the first passage, for instance, when he determines which of the medieval institutions of learning should be acknowledged as authentic universities, he grants (along with Dr. Johnson) such a distinction to Paris, but not to Padua, Salamanca, or Cologne, because in Paris "the whole circle of sciences then known was taught" (*The Idea*, p. 20). By its very designation, a university is to be a meeting-place for all science. In the next passage, he employs the "circle" metaphor to underpin his argument for including theology in the university curriculum:

I observe, then, that, if you drop any science out of the circle of knowledge, you cannot keep its place vacant for it; that science is forgotten; the other sciences close up, or, in other words, they exceed their proper bounds, and intrude where they have no right. For instance, I suppose, if ethics were sent into banishment, its territory would soon disappear, under a treaty of partition, as it may be called,

between law, political economy, and physiology; what, again, would become of the province of experimental science, if made over to the Antiquarian Society; or, of history, if surrendered out and out to Metaphysics? The case is the same with the subject-matter of Theology; it would be the prey of a dozen various sciences, if Theology were put out of possession; and not only so, but those sciences would be plainly exceeding their rights and their capacities in seizing upon it (*The Idea*, pp. 73-74).

Surely, history attests to this tendency of the various sciences to overstep their proper bounds, encroaching upon the domains of rival sciences. In yet another passage, he uses the "circle" metaphor to refute a "medical philosopher" who thinks that "whatever is true in his own science is at once lawful in practice—as if there were not a number of rival sciences in the great circle of philosophy, as if there were not a number of conflicting views and objects in human nature to be taken into account and reconciled" (*The Idea*, p. 513). In proceeding thus, a medical philosopher not only confirms the Newmanian view that the exclusive pursuit of any particular science may deaden in one the value of any other (such exclusiveness representing the antithesis of liberal education) but also confirms that "there is no science but tells a different tale, when viewed as a portion of a whole, from what it is likely to suggest when taken by itself" (*The Idea*, p. 100). Undoubtedly, the passages above suggest that Newman resorts to the "circle" metaphor not primarily for its artistic but for its explanatory value.

By thus employing the "circle" as symbolical of the integrity of the universe of knowledge, Newman borrows from a long tradition in Western thought—a tradition that, as Bacon points out, may be traced to the Greeks: "And it is a matter of common discourse of the chain of sciences how they are linked together, insomuch as the Grecians, who had terms at will, have fitted it of a name of Circle of Learning."² Besides his probable indebtedness to Bacon, other probable sources of influence upon Newman's employment of the "circle" symbolism are Augustine (and the Scholastic philosophy in general) and Coleridge. The Newmanian indebtedness to Coleridge becomes particularly enlightening if it is recalled that in his quarrel with the new encyclopedias (with their method of alphabetizing, and levelling all knowledge) Coleridge, referring to the circle of sciences, argues—as does Newman—that an encyclopedia (a scriptural university, as it was known in the early nineteenth century) should reconcile the integrity of knowledge with its hierarchical character. In Coleridge's words, "what a strange abuse has been made of the word encyclopedia. It signifies properly grammar, logic, rhetoric, and ethics, and meta-

physics, which last, explaining the ultimate principles of grammar,—log.—rhet. and eth.—formed a circle of knowledge.”³

With Coleridge, Newman agrees that the universe of knowledge is to be conceived of not only as a unity, but also as a hierarchical unity. In broad outline, Newman's divisions of knowledge correspond to what he conceives of as the three distinct levels of existential reality—God, Nature, and Man:

There are three great subjects on which Human Reason employs itself:—God, Nature, and Man; and theology being put aside in the present argument, the physical and social world remain. These, when respectively subjected to Human Reason, form two books: the book of nature is called Science, the book of man is called Literature (*The Idea*, p. 219).

In such a scheme of knowledge, science (physical, experimental science in twentieth-century terms) is to nature what literature (the humanities in similar terms) is to man, and what theology (revealed truth in similar terms) is to God. In such a scheme, science, whose subject matter is the realm of things, is intrinsically inferior to literature, whose subject matter is the realm of the personal, and literature itself is intrinsically inferior to theology, whose subject matter is the supremely personal.

In thus envisioning the universe of knowledge at once as both a unity (the circle of sciences) and a hierarchy (the degrees or levels of knowledge), it may be asked: does Newman not contradict himself? As has been previously suggested, even if Newman is liable to such censure, it is most possible that he simply expresses himself in the Coleridgean tradition—a tradition recognizing no such cleavage between the unity and the hierarchy of knowledge though employing the “circle” symbolism. As an alternative way of resolving the apparent contradiction, it may be proposed that if the centre of the circle of sciences be conceived of as representing the “form” (in the scholastic sense of all knowledge), then science, literature, and theology may be conceived of as occupying, respectively, circumferences more or less distant from the common centre. In any case, in Newman's thought there is yet another analogy besides the “circle” metaphor to which he frequently resorts and by which the unity and the hierarchy of knowledge may be reconciled—an analogy by which he conceives of the universe of knowledge as an organism. In the following passage, referring to his man of imperial intellect, his man of comprehensive knowledge, his man who grasps the “form of universal knowledge”, Newman relies upon an organic analogy:

Possessed of this real illumination, the mind never views any part of the extended

subject-matter of Knowledge without recollecting that it is but a part, or without the associations which spring from this recollection. It makes every thing in some sort lead to everything else; it would communicate the image of the whole to every separate portion, till that whole becomes in imagination like a spirit, every where pervading and penetrating its component parts, and giving them one definite meaning (*The Idea*, p. 137).

In terms of an organic parallel, and proceeding somewhat as does Bacon, it would then be consistent with the Newmanian thought to symbolize the universe of knowledge as follows: "the spirit", which may be figured as representing the form of universal knowledge—its oneness; "the senses", the physical sciences, which, according to Newman, have there both their starting and terminal points; "the memory", history—without which mankind can neither identify itself nor progress; "the imagination", poetry by which man re-creates nature after his own personal image; "the heart", those deep transcendental truths that escape exact formulation; "the head", philosophy, the science of sciences—by which one has a comprehensive vision of the whole universe of knowledge.

In the universe of knowledge, then, it is to philosophy, the Aristotelian science of sciences, that Newman assigns the superintending role of adjusting the bearings of one science upon another. Philosophy, thus, "never views any part of the extended subject-matter of Knowledge, without recollecting that it is but a part, or without the associations which spring from this recollection" (*OUS*, p. 291). Philosophy endows one with "an insight into the bearing and influence of each part upon every other; without which there is no whole; and could be no centre. It is the knowledge, not only of things, but of their mutual relations. It is organized, and therefore living knowledge" (*OUS*, p. 287). In summary, philosophy is

Reason exercised upon Knowledge; or the Knowledge not merely of things in general, but of things in their relations to one another. It is the power of referring every thing to its true place in the universal system,—of understanding the various aspects of each of its parts,—of comprehending the exact value of each,—of tracing each backwards to its beginning, and forward to its end (*OUS*, pp. 290-291).

It is to philosophy (thus understood) that Newman assigns the role of superintending the universe of knowledge, comprehending and delineating: (1) the nature of each science, i.e., its essence; (2) how each science interrelates with rival sciences, i.e., its integrity; (3) the educational values of each science, i.e. its useful and liberal values. To conclude this study, it will be demonstrated

briefly how Newman applies philosophy in such a superintending role to comprehend and delineate the nature of each of his great divisions in the universe of knowledge: science, literature, and theology.

In establishing the essence of science, Newman is indebted to the British empirical tradition of Bacon and Newton—a tradition that generally conceives of science as being both the theory and investigation of the sensible world, the realm of things. With the sensible world as its starting-point, science (or, more specifically, physics, as Newman qualifies it) strives to formulate the laws governing matter:

In Physics is comprised that family of sciences which is concerned with the sensible world, with the phenomena which we see, hear, and handle, or, in other words, with matter. It is the philosophy of matter. Its basis of operations, what it starts from, what it falls back upon, is the phenomena which meet the senses. Those phenomena it ascertains, catalogues, compares, combines, arranges, and then uses for determining something beyond themselves, viz. the order to which they are subservient, or what we commonly call the laws of nature (*The Idea*, p. 432).

Such is the proper domain of physical science—the world of matter, of things, of impersonality. With Bacon, Newman concurs that natural science is concerned with the laws of matter *per se* and not with final causality: “Physical philosophers are ever inquiring whence things are, not why; referring them to nature, not to mind; and thus they tend to make a system a substitute for God” (*DA*, p. 299). Truly, science is a-theistic insofar as it considers matter apart from God.

Again, agreeing with the Baconian tradition, Newman identifies science with the inductive, *a posteriori* method of investigation. He observes that the “method of Physics, at least on starting, is that of an empirical pursuit, or inductive” (*The Idea*, p. 441). Again, with Bacon, Newman agrees that the medieval Aristotelians, by appealing to authority and syllogistic reasoning rather than to observation and experiment, misapprehended the true nature of science. As Newman observes, “in forming any serious theory concerning nature, we must begin with investigation” (*OUS*, p. 8). To have nature give forth its secrets, it is to be questioned and re-questioned—for science must ever be alert to the probability that what is superficially so may not really be so:

In physical matters, it is the senses which give us the first start—and what the senses give is physical fact—and physical facts do not lie on the surface of things, but are gained with pains and by genius, through experiment. Thus New-

ton, or Davy, or Franklin ascertained those physical facts which have made their names famous (Ward, II, p. 331).⁴

Such, then, in Newman's view, is physical science essentially—a branch of knowledge whose proper domain is the sensible world, the world of matter, and whose proper investigatory procedure is inductive and empirical. By way of critical commentary, it may be suggested that to twentieth-century theoreticians of science, undoubtedly Newman's idea of science suffers from its too faithful adherence to the Baconian tradition in its very sharp distinction between the inductive and the deductive methods and in its relative neglect of the vital role of hypothetical and analogical thinking in scientific discovery.

Viewed integrally, science can be related to the other branches of knowledge in the great circle of learning. For instance, science (whether conscious of the indebtedness or not) relies upon such philosophic or meta-scientific principles as the following: "that what happened yesterday will happen to-morrow; that there is such a thing as matter; that our senses are trustworthy; that there is a logic of induction" (*The Idea*, p. 49). Not to acknowledge that science proceeds on such assumptions is not to refute that it does. Moreover, even with the family of physical sciences itself, a principle of mutual dependence prevails, for really such sciences are not to be regarded as

... simple representations or informants of things as they are. We are accustomed to say, and say truly, that the conclusions of pure mathematics are applied, corrected, and adapted, by mixed; but so too the conclusions of Anatomy, Chemistry, Dynamics, and other sciences, are revised and completed by each other. Those several conclusions do not represent whole and substantive things, but views, true, so far as they go; and in order to ascertain how far they do go, that is, how far they correspond to the object to which they belong, we must compare them with the views taken out of that object by other sciences (*The Idea*, pp. 48-9).

Only by collaboration do the sciences reach the integral truth of their object.

The integrity of the sciences, their inter-relatedness, nowhere is better evidenced than in the law of their progress. For the law of progress in science, of revolutionary discoveries, of fruitful cosmic theories, as history attests, regularly occurs from the liberal interaction of rival sciences. In Baconian words, which Newman quotes approvingly, it can be affirmed that "No perfect discovery can be made upon a flat or a level; neither is it possible to discover the more remote and deeper parts of any science, if you stand upon the level of the science and ascend not to a higher science" (*The Idea*, p. 90).

In discussing the educational value of science (as in discussing the edu-

cational value of the other divisions of knowledge), Newman evaluates it by the tests of its utility (its "power") and its liberality (its "beauty"). Immediately, he concedes to the partisans of the Baconian method its glorious triumphs. As he admits, "The truth of the Baconian method for the purposes for which it was created, and its inestimable services and inexhaustible applications in the interests of our material well-being, have dazzled the imaginations of men" (*The Idea*, p. 263). The utility of science, its power, its almost miraculous control over nature—these are beyond dispute. Viewed aesthetically, for the beauty of knowledge for its own sake, science has also a claim for its inclusion in liberal education. Such scientific pursuits are "intrinsically excellent" and "worthy of a place in a liberal education" (*DA*, p. 304). Granting thus both the useful and the liberal values of science, why, then, does Newman not endorse it fully? A major objection that he holds against science is its inveterate tendency to equate the actual system of the world with only those truths discoverable by scientific investigation: its tendency, that is, to glorify itself as a universal philosophy. Newman does not endorse science fully because he recognizes too well the tendency that Huxley uncovers as the predominant characteristic of the nineteenth century—"the rapid growth of the scientific spirit and consequent application of scientific methods of investigation to all problems with which the human mind is occupied, and the correlative rejection of traditional beliefs which have proved their incompetence to bear such investigation" (Ward, I, p. 307). Arriving at the same diagnosis, Newman recognizes that in his own age physical science is "often set forth even as the only true philosophy" (*OUS*, p. 283). Another objection that Newman holds against science (which is really a logical outgrowth of the first) is its tendency when pursued in a certain spirit to reject religious truths and even to clothe itself in pseudo-religious forms. He explains the tendency of science to lead to infidelity thus:

The system of physical causes is so much more tangible and satisfying than that of final, that unless there be a pre-existent and independent interest in the inquirer's mind, leading him to dwell on the phenomena which betoken an Intelligent Creator, he will certainly follow out those which terminate in the hypothesis of a settled order of nature and self-sustained laws (*OUS*, p. 194).

In other words, the study of nature, "when religious feeling is away", tends to encourage atheism as being the philosophy that is "simplest and easiest" (*DA*, p. 300). But not only may science thus tend to reject religion; it may further tend to act as a substitute for it. As propagandized by such influential nineteenth-century personages as Sir Robert Peel and Lord Brougham, for instance, the beneficial consequences of scientific study are claimed to extend to the

moral in addition to the material order. In short, such proselytizers argue that science has *per se* value in effecting moral reformation. To such claims Newman rejoins that science "never healed a wounded heart" (*DA*, 270). And, no doubt, he would further add that through its investigative methods it cannot explain a guilty conscience—or, for that matter, any authentic religious experience. In his view, the physico-mathematical methods of investigation are inapplicable to such deeper, more personal provinces of truth as the religious and the literary.

In determining the essence of literature, the next division in his universe of knowledge, Newman labours under a disadvantage peculiar to his own age—that the term "literature" was then rather loosely used, witness the practice of De Quincey and Arnold. The term was used to comprehend works of both belletristic and informational character. In Newman's age, "literature" had not as yet been restricted (even as it has not been so restricted in current popular—and even sophisticated—usage) to works of a primarily aesthetic and imaginative quality (De Quincey's *Literature of Power*) as opposed to those of a merely informational and intellectual quality (De Quincey's *Literature of Knowledge*). As has been previously pointed out, Newman regularly employs the term in a generic sense as an equivalent to the twentieth-century term "humanities"—that is, those branches of knowledge whose subject matter is Man. In such a broad sense, he defines literature provisionally as "the manifestation of human nature in human language" (*The Idea*, p. 232). Or again, in a lengthier passage, he explains,

Literature stands related to Man as Science stands to Nature; it is his history. Man is composed of body and soul; he thinks and he acts; he has appetites, passions, affections, motives, designs; he has within him the lifelong struggle of duty with inclination; he has an intellect fertile and capacious; he is formed for society, and society multiplies and diversifies in endless combinations his personal characteristics, moral and intellectual. All this constitutes his life; of all this Literature is the expression; so that Literature is to man in some sort what autobiography is to the individual; it is his Life and Remains (*The Idea*, 227).

Literature, thus conceived, expresses nothing less than the human story. It reveals man not only as he is in himself, but also as he interacts with society. It puts the mirror up to him, revealing neither an angel nor a beast, but a man—a being strangely divided in nature: in Pascalian terms, a contradiction, a prodigy; a judge of all things, an imbecile worm of the earth; a depository of all truth, a sink of uncertainty and error; the pride and the refuse of the universe.

In defining literature still more specifically and in differentiating it further from science, Newman stresses that it differs from the latter not only in its subject matter (Man rather than Nature) but also (and even more significantly) in its peculiar mode of expression. In contrast with science, which uses words "as the mere vehicle of things", literature uses them as speech, as language—that is, in their full linguistic potentialities. For Newman, then, literature may even be defined as the "personal use or exercise of language" (*The Idea*, pp. 274-5). It is language used in its full compass with all its historical and connotative associations. To summarize the differences between science and literature—science gives objective, impersonal knowledge of the exterior world of things, of reality; literature gives subjective, personal knowledge of the inner world of men, of ideas; science uses words symbolically, denuded of personal associations; literature uses them artistically, unembarrassed by their human colourings.

Integrally, as has been explained, literature is relatable to science as being a personal, subjective presentation of truth as opposed to an impersonal, objective one. On yet another level, literature is relatable to such meta-scientific learning as philosophy. Though it is a common event in cultural history for literature, particularly through its poetic voice, to disavow any affinities with philosophy, nevertheless, in its own way, it itself philosophizes. For the poets, as Newman contends, "while they disown philosophy, frame an ideal system of their own" (*OUS*, p. 296). Literature, then, is personal philosophy; it is a personal paraphrase of reality; it is reality re-created in man's image. As being the voice "of the natural man" (*The Idea*, p. 228), as expressing an a-religious or even anti-religious vision of things, literature, moreover, frequently counters the truths proposed by Christianity. Taking a panoramic view of European literature in its relationship with Christian philosophy, Newman generalizes that "One literature may be better than another, but bad will be best, when weighed in the balance of truth and morality" (*The Idea*, p. 316).

Educationally, literature has both useful and liberal value. From a strictly pragmatic viewpoint, literature, as being a study of "natural man", of man in all his wayward tendencies, offers an education adapted to living in the world; it offers rich insights into the workings of the worldly mind. Viewed liberally, in Newman's judgment, literature (the ancient classics in this context) offers a more reliable way than does its rival, science, in realizing the ideals of genuine cultivation of the mind. Weighing the relative merits of literature and science in perfecting mental culture, he reasons as follows:

The simple question to be considered is, how best to strengthen, refine, and enrich the intellectual powers; the perusal of the poets, historians, and philosophers of Greece and Rome will accomplish this purpose, as long experience has shown: but that the study of the experimental sciences will do the like, is proved to us as yet by no experience whatever (*The Idea*, p. 263).

Viewing the classics in association with Christian revelation, though acknowledging that many of the ideas therein contained are irreconcilable with the Christian conscience, Newman nevertheless accepts the judgment of the early Church Fathers that "pagan literature, philosophy, and mythology, properly understood, were but a preparation for the Gospel" (*Apologia*, p. 27).

In determining the essence of theology, the highest division in his universe of knowledge, Newman, it is to be emphasized, distinguishes sharply between so called natural theology and revealed theology. Natural theology knows about God through His work, revealed theology through His Word. It needs to be underlined, before proceeding (in answer to nineteenth-century scientific liberalism and to Evangelicalism) that, in Newman's view, theology offers not mere opinion or religious sentiment but genuine knowledge—a knowledge more certain because of its source than all other human knowledge. It should also be explained that in the discussion to follow reference is made only to the Newmanian idea of revealed theology—that is, in his view, to theology properly so called.

The subject matter of theology, thus understood, is God as revealed in the Scriptures, and the particular subject matter, as given from above, determines its proper methodology:

The argumentative method of Theology is that of a strict science, such as Geometry, or deductive; the method of Physics, at least on starting, is that of an empirical pursuit, or inductive. This peculiarity on either side arises from the nature of the case. In Physics a vast and omnigenous mass of information lies before the inquirer, all in a confused litter, and needing arrangement and analysis. In Theology such varied phenomena are wanting, and Revelation presents itself instead (*The Idea*, p. 441).

In short, "Induction is the instrument of Physics, and deduction only is the instrument of Theology" (*The Idea*, p. 223). The deductive method is thus proper to theology as beginning "not with any sensible facts, phenomena, or results, not with nature at all, but with the Author of nature" (*The Idea*, p. 434). Physical theology, inductive theology (that is, the application of the Baconian method to theology), valuable as it is in what it reveals about the God of nature, is but an antechamber to revealed theology. If God is to be

known as more than a Cosmic Designer, indeed as a Heavenly Father, then it behooves that the Divine reveal Himself.

No, physical theology is not a judge of Revelation. Nor is humanistic rationalism. To enrobe human reason as an omniscient judge of religious truth is to dethrone religion; it is to deny the existence of truths that transcend reason:

Rationalism is a certain abuse of Reason; that is, a use of it for purposes for which it never was intended, and is unfitted. To rationalize in matters of Revelation is to make our reason the standard and measure of the doctrines revealed; to stipulate that those doctrines should be such as to carry with them their own justification; to reject them, if they come in collision with our existing opinions or habits of thought, or are with difficulty harmonized with our existing stock of knowledge. And thus a rationalistic spirit is the antagonist of Faith; for Faith is, in its very nature, the acceptance of what our reason cannot reach, simply and absolutely upon testimony (*ECH*, I, p. 31).

Though it may be scrutinized and even justified by Reason, Faith does not depend upon it.

Integrally, as has been previously shown, theology has varied relationships with all the branches of knowledge. In the following passage, returning to his argument that the universe of knowledge is one, that it is a circle, and that it is inter-related, Newman establishes associations between theology and the other branches of knowledge:

. . . in order to have possession of truth at all, we must have the whole truth; and no one science, no two sciences, no one family of sciences, nay, not even all secular science, is the whole truth; that revealed truth enters to a very great extent into the province of science, philosophy, and literature, and that to put it on one side, in compliment to secular science, is simply, under colour of compliment, to do science a great damage. I do not say that every science will be equally affected by the omission; pure mathematics will not suffer at all; chemistry will suffer less than politics, politics than history, ethics, or metaphysics (*The Idea*, p. 72).

Hierarchically, the more intimately related the subject matter of a science is to nature, the more its method is rigidly demonstrative, the less it will suffer from the exclusion of theology in its pursuit; on the other hand, the more intimately related a science is to the personal (to the human or divine), the more its method depends upon accumulated probabilities, the more it will benefit from the inclusion of theology in its pursuit.

In this way, also, theology is to be distinguished from religion. Though these two terms (both in Newman's day and in ours) are used loosely as identical. Newman discountenances the practice. Thus, "Religion is more than

Theology; it is something relative to us; and it includes our relation towards the Object of it" (*The Idea*, p. 453). Or, again, "Theology, as such, always is notional, as being scientific; religion, as being personal, should be real" (*A Grammar*, p. 55). To summarize: theology is science, religion is experience; theology is objective, religion is subjective; theology is impersonal, religion is personal.

The study of theology may also be pursued from either a useful or a liberal motivation. In the following passage, Newman applies his general educational philosophy to the study of theology:

If, for instance, Theology, instead of being cultivated as a contemplation, be limited to the purposes of the pulpit or be represented by the catechism, it loses,—not its usefulness, not its divine character, not its meritoriousness (rather it gains a claim upon these titles by such charitable condescension),—but it does lose the particular attribute which I am illustrating; just as a face worn by tears and fasting loses its beauty, or a labourer's hand loses its delicateness;—for Theology thus exercised is not simple knowledge, but rather an art or a business making use of Theology (*The Idea*, pp. 108-9).

Clearly, then, it is not to be inferred that, in sharply distinguishing between the useful and the liberal ends even as applicable to theology, Newman is underestimating the practical values of theology. The preceding statement is simply a restatement of his educational philosophy—that liberal knowledge, that is, knowledge pursued for its own sake because of its own intrinsic goodness, excludes any extrinsic informing agent. As he insists again and again, whether in application to the study of science, literature, or theology, liberal knowledge is that "which stands on its own pretensions, which is independent of sequel, expects no complement, refuses to be informed (as it is called) by any end, or absorbed into any art, in order duly to present itself to our contemplation" (*The Idea*, p. 108). Such emphasis on the strictly "use-less" value of liberal knowledge does not imply, let it again be stressed, that Newman dismisses the "useful" value of theology in his ideal university. Rather, so acutely aware is he that the spirit in which knowledge is pursued may be, in a sense, more vitally significant than the particular subject matter or its liberal values, that it is his fervent wish (in answer to nineteenth-century rationalism) that Reason and Faith be reconciled in a new holy alliance. Instead, then, of adopting the rationalist standpoint, the purely secular standpoint, he proposes that the order of things be reversed—that Faith be "put first and Knowledge second; let the University minister to the Church, and then Classical poetry becomes the type of Gospel truth; and physical science a comment on Genesis or Job, and Aristotle changes into Butler, and Arcesilas into Berkeley" (*DA*, 275).

The preceding discussion has made clear that Newman's educational philosophy expresses his grand vision of a vast inter-related and integrated universe of knowledge that itself is grounded upon his conception of the existential universe; that this grand vision informs and underpins the marvellously constructed argument of *The Idea of a University*; and that only within the context of this grand vision are his arguments for liberal education, for theology as a branch of learning, for the reconciliation of the sciences and the arts, fully comprehensible. It is further hoped that the discussion has suggested that, as contrasted with the prevailing atomistic tendencies of so much contemporary educational thought, Newman's philosophy is genuinely radical in proposing that intellectual order will be restored only by the prior restoration of an integral, ordered view of the universe.

NOTES

1. All references to Newman in this study are to the standard editions of his collected works published by Longmans, Green & Co. in 40 volumes (1874-1921). Within the text, the following shortened references have been used: *The Idea of a University* (*The Idea*), *Oxford University Sermons* (*OUS*), *Discussions and Arguments on Various Subjects* (*DA*), *Apologia Pro Vita Sua* (*Apologia*), *Essays Critical and Historical*, Volume I (*ECH, I*), and *A Grammar of Assent* (*A Grammar*).
2. Francis Bacon, as quoted in A. Dwight Culler, *The Imperial Intellect* (New Haven: Yale University Press, 1955), p. 173.
3. Samuel Taylor Coleridge, as quoted in Culler, p. 177.
4. Wilfrid Ward, *The Life of John Henry Cardinal Newman*, Volumes I and II (Longmans, Green, 1912). Shortened references in the text are Ward, I, and Ward, II.

PASTORAL

Stanley Cooperman

Your fingers may stroll with mine
 on that fair surface, the meadow
 whose name we share;
 silk may grow like cultivated lawn
 sweet as the moon we wrap in glass
 (when lovers dance on each other's crust
 pouring roses from their eyes
 as though each blossom were a meteor-stone
 immortal as arithmetic)