THE THOMIST

ABSTRACTION: A CONTEMPORARY LOOK

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THE THEORY OF abstraction is one of those epistemological theories which, historically as well as in a contemporary context, have served to polarize philosophical positions. The dividing line of this division falls along two theses, both of which are considered essential to the integrity of the theory itself: the doctrine of mental faculties as distinct functions of the human intellect and soul; and the theory of metaphysical realism. Traditional as well as contemporary critique of the theory of abstraction has been to the effect that quite apart from all else, these very presuppositions of the theory are suspect, if not downright mistaken; and that therefore the theory itself need not be examined for conceptual consistency and philosophical insight—to say nothing of correctness.

I do not here wish to debate the various pros and cons of this critique. To be quite candid, I am convinced that as generally understood these presuppositions of the theory are unacceptable, and therefore cannot lend support to the theory itself. At the same time, I am also convinced that the theory need not

be understood in this manner; and what is more important, that the critical conclusion suggested by the preceding train of reasoning is mistaken. I am convinced that there is a way of interpreting the theory of abstraction which not only renders it immune from criticisms which have thus been directed against it, but also shows that the theory is in fact correct.

This, then, is the task which I have set myself in the present paper: to show why and how the theory of abstraction should be considered seriously from a modern point of view. But as the proverb has it, one cannot make an omelette without breaking eggs. Thus, what will emerge after I have done will be an account of abstraction which, although in essence constructed along historical lines, differs considerably from those accounts proffered by historical figures. In fact, it will be extremely doubtful, not to say unlikely, that any historical figure would recognize right off the theory as clothed in such modern garb as I intend to furnish it. Still, I am convinced that once explained to them, these individuals would accept my version of the theory of abstraction as merely a modern re-working of their own. Nor do I make this last claim in the spirit of a pious hope. I am confident that what I see as the central thrust of the theory of abstraction is already to be found in the writings of that greatest medieval expositor of it: St. Thomas Aquinas. In the present paper, I propose to put this confidence to the test. That is to say, I shall present my analysis of the theory of abstraction as a reinterpretation and exposition of the account proffered by St. Thomas. As an aside, I find this approach doubly fitting: Not only is the account given by Aquinas the touchstone of any attempted reinterpretation; if successful, my endeavour will also have the merit of showing the perennial nature of the Saint's conceptual endeavour.

I

However, I shall not begin in *medias res*. Instead, I shall soften the harshness of my unaccustomed interpretation by beginning with Aristotle, the precursor of Aquinas.

That is to say, the roots of Aquinas's theory of abstraction are manifold. Ultimately, however, they reduce to one—a taproot, to continue the metaphor: the theory of perception advanced by Aristotle. The latter probably finds its most familiar expression in Book Three of the *de Anima*. There, Aristotle tells us that we must distinguish between a sense on the one hand, and a *sense organ* on the other. The latter, so he tells us, is merely a material, physiological entity which functions as the substratum of the sense itself, where the sense is defined as " the equipoise of contrary qualities in the organ." [1] He then does go on to say:

This explains why plants cannot perceive, in spite of their having a portion of soul in them and obviously being affected by tangible objects themselves; for undoubtedly their temperament cannot be lowered or raised. The explanation is, that they have no mean of contrary qualities, and so no principle in them capable of taking on the forms of sensible objects without their matter.[2]

From this account, two things emerge: One, that sensation is a matter of " taking on the forms of sensible objects without their matter." The other, that this taking on of the forms of objects—of the stimulus-objects—depends on the presence of contrary qualities in the sense-organs which, until the moment of their stimulation, are held in " equipoise." Both of these points are important. The first finds its development in expressions like " actual knowledge is identical with its object," [3] and the claim that the mind " becomes each set of its possible objects " [4]—in short, in the thesis that " in every case, the mind which is actively thinking is the object which it thinks." [5] The second has rather important implications with respect to the notion of form: as to how we understand it. Let me consider these in turn.

What the first comes down to is this: The mind, like the

[1] 424a31.
[2] 424a32-424b2.
[3] 420a20; 431a1; etc.
[4] 429b5.
[5] 431b17 ff.

senses, acquires the form of its object. It becomes " informed "
by the latter, as it were. In thus becoming informed, the mind
becomes qualitatively identical with its object. If that object
happens to be a pure form, then of course the thinking mind
will be its own object. The Prime Mover is here a case in point.
If the object is not a pure form but has matter, then the mind
will differ from its object. But only numerically; i. e., with
respect to the matter. Otherwise, what the mind thinks and
the mind itself are one and the same. Nor does this state of
affairs hold only with respect to thinking as we nowadays un-
derstand the term. It also applies to thinking as understood in
the traditional sense. More particularly, it also applies to
perception. Here the form is supplied directly by the relevant
sense (s) and is identical with the form of the object which
acts as a stimulus. But even in these cases—or especially here—
the mind is what it perceives, i. e., thinks.

If the mind were a material entity, this would occasion diffi-
culties. Not the least of these would be that perception would
have to involve a spatio-temporal modification of the mind it-
self.[6] However, as Aristotle reminds us, the mind is not ma-
terial. To be precise, he says that it is a " form of forms." [7]
Consequently, this sort of difficulty does not obtain.

Others, however, do. The most important of these can be
summed up in the following questions: how is it that the mind
can become that which it thinks and yet remain essentially as
well as numerically distinct from it; and how is it that the senses
can take on the form (but not the matter) of their stimulus-
objects and not turn into the objects themselves? These ques-
tions, in turn, focus on still another issue: How to interpret the
Aristotelian concept of form, particularly in view of the claims
made about the natures of mind and senses respectively.

At this juncture, I want to leave traditional interpretations
of Aristotle's *dicta* and start anew. To begin with, I propose to
take seriously the claim which Aristotle makes in diverse places:

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[6] The phrase, " store-room of the imagination " obtrudes itself in this context.
[7] 432a1-2.

that a form is not a metaphysical entity in the Platonic sense, but a principle of organization.[8] The way in which I propose to understand this is, that a form is a structural relation; or, as one might also put it, that it is a pattern of structural complexion which, insofar as its nature concerned, is independent of and distinct from the substrata in which it might be realized, but which for all that cannot exist (cannot be realized) independently of such substrata.

With this in mind, let us make a brief excursion into the realm of contemporary logical theory. The latter recognizes a distinction between the different orders or levels of generality of distinct systems. Thus, there are first-order systems, whose formulae, axioms and theorems deal only with states of affairs, objects, etc., in the world; second-order systems, whose formulae, axioms and theorems deal only with statements about the world; third-order systems, whose formulae, axioms and theorems deal only with statements about statements about the world; and so on. It is the relationship between first- and second-order systems that is of interest here. For, a second-order system can be viewed as a schema; as a generalization with respect to various first-order possibilities, where the diverse first-order systems which it permits are distinct and mutually exclusive realizations of these possibilities. Another, logically equivalent way of putting this would be to say that an individual first-order system is a particularization of a certain second-order system where the latter also admits of various other, mutually exclusive particularizations.[9]

Let us return for the moment to the Aristotelian definition of a form as a principle of organization.[10] I suggested that this means that a form must be understood as a principle of structure, and that it follows from this that a form must be construed as a relational entity which can be realized in many ways, de-

[8] Cf. 1041b26 ff.; 1014b36 ff.; 1033b19f.; 1031b31ff.; etc.

[9] A good example of the sort of relationship involved here would be that outlined by David Hilbert in his epochal *On The Foundations of Geometry* as holding between Euclidean, Riemannian and various other geometries on the one hand, and the second-order geometry of which they are particularizations on the other.

[10] Cf. 8 above.

pending on the nature of the substratum in which it is instantiated, but which, as such, is logically independent of the particular substratum in question.[11] This crucial point can be illustrated with the aid of contemporary physics; more specifically, by considering the nature of a hologramme.[12] Whatever the manner of its generation, a hologramme is really nothing other than a complex wave pattern. As such, it is susceptible of exact mathematical analysis; if not in actual practice, then at least in principle. Let us suppose that a particular hologramme has been analyzed in such a way. Then the equations representing it would be uniquely descriptive of its structural form. However, these mathematical formulae would not apply to the hologramme alone. They would also describe the stimulus-object giving rise to the hologramme insofar as it is a causal antecedent of the latter. In that sense, therefore, these formulae would be a mathematical expression of one and the same principle of structure or form as it is realized in distinct material substrata. In that sense, too, the form can be seen to be independent of the particular substratum in which it happens to be instantiated.

If we now turn to the concept of a nervous system, we can effect a synthesis of the disparate logical and physical points that have just been made in order to shed some light on our

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[11] Where there is here no suggestion whatever as to existential independence. Indeed, the interpretation I am suggesting would make nonsense of such a claim.

[12] A hologramme is an interference pattern produced by the interaction of a reference wave with waves of the same type issuing from or reflected by the object to be recorded. Coherent radiation—usually laser light—is generally employed to produce such a pattern. The latter does not look like the object, but like the sort of ring-formed wave-pattern produced by simultaneously throwing several rocks into a still pool. Hologrammes provide a striking example of the principles that forms qua forms are independent of substrata and that forms are in the receiver after the nature of the receiver. For, hologrammes and target objects share the same form: when illuminated by laser light of the original type, a 3-D image structurally identical to the target object (in the causally relevant sense) is produced which can be viewed from different angles as the observer changes position just as can the target object. Since the structure of the image is constituted by the hologramme, and not the coherent light, the former must contain the form without for all that being the object.

problem. For, in a very real sense, a nervous system can be viewed as a second-order system capable of first-order particularizations. That is to say, it can be viewed as a neural net which as such is a physical analogue of a second-order system. Its specific states—the specific electro-chemical activities which obtain in the various senses at any given moment in time—would then be determinations or particularizations of the system to one of the many sets of possibilities inherent in the net as a whole *qua* second-order system. If we consider what I said a moment ago about the identity of form between stimulus-object and hologramme, this will now become germane in the following way: upon stimulation by a particular object, the nervous system, considered as a second-order system, is particularized in its states to a series of first-order states—electro-chemical discharges—the logical nature of which is isomorphic to the form of the stimulus-object insofar as the latter is causally active in that particular modality in which the system is receptive.[18] Therefore, those very equations which describe the hologramme and the stimulus-object would also describe this first-order electro-chemical particularization of the nervous system on this specific occasion. And in this sense, clearly, stimulus-object and nervous system—stimulus-object and sense—could meaningfully be said to have one and the same form.

Let me now return to my point of departure: Aristotle's claim that (1) the sense is an equipoise of contrary qualities, distinct from the sense-organ itself; that (2) sensation is a disruption of this equipoise—a disturbance of the mean of the temperament—which forms the material basis of the sense; that (3) in sensation, the sense takes on or is informed by the form of the object, but without its matter; and that (4) the mind which is perceptually aware " is the object which it thinks." In line with the preceding discussion, all of this can now be restated in more modern terminology, as follows:

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[18] I am here postulating an ideal case, barring sensory malfunctioning, etc. Strictly speaking, this account applies to the particular senses, not the nervous system as a whole. However, the same analysis, *mutatis mutandis,* holds for the latter as well.

(1) The sense itself is a second-order system: a structural organization or inter-relationship among material entities (neurons, etc.) which, although not identical with the sense itself, nevertheless function as its material basis.

(2) Sensation is a determination of this second-order system to one of the first-order possibilities inherent in it, where the first-order states which result form an analogue of the stimulus-object as it is causally active on the sense-organ.

(3) The first-order determination of the sense is not merely an analogue of the stimulus-object, but in fact is an isomorph in the sense explained.[14] The sense thus " takes on the form " of the object. A mathematically describable relation of structural identity obtains between the first-order particularization of the sense and the stimulus-object.

(4) The mind is a " form of forms " ; i. e., a third-order structural organization of the material, neurological basis which, as such, includes as its particular determinations the various second-order systems which are the senses. Being a higher-order system, it can contain these mutually conflicting second-order systems simultaneously, and thus is capable of particularization to distinct first-order states at one and the same time as a result of the stimulation of the senses. In this way, the mind, like the senses, acquires the forms of the various stimulus-objects—" receives " their forms, but not their matter—in the form of neural impulses which together constitute the neurological isomorph of the stimulus-object's structure. The mind thus becomes " the object which it thinks " ; that is to say, in this way it comes to share the latter's form.[15] Of course, given its nature

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[14] If need be, this isomorphism—this identity of form—could be substantiated by an analysis of the wave-pattern and the electro-chemical state of the responding system. I realize full well that the production of the relevant equations is something which is not possible for us at the present time. In that sense, what I have just said is more in the nature of a pious hope than a description of an actual state of affairs.

[15] I am fully aware that I have here made Aristotle out to be a materialist with respect to minds. Although unusual, this is nevertheless perfectly in accord with

as a third-order system, this becoming-the-object-which-it-thinks does not entail a spatio-temporal assimilation of it to the stimulus-object, any more than this was the case with sensation proper as discussed previously.[16]

The interpretation of 'form,' 'sense' and 'mind' which I have just suggested explicates, and indeed lends credibility to, the Aristotelian account of perceptual awareness. What would otherwise be outlandish metaphysical nonsense now appears as comprehensible, credible, and possibly even correct. This, I submit, is a point in favour of my interpretation, its unusual character notwithstanding. But it also has another advantage— if such it may be called: it brings out a fundamental shortcoming of the Aristotelian account, a shortcoming which is best captured by Aristotle's own phrase: The mind *qua* form of forms " becomes the object which it thinks."

This shortcoming does not reside in the postulate of formal isomorphism between mind and object. On the contrary, that is a point in its favour: any theory of perceptual awareness which accepts the hypothesis of a non-phenomenal reality which is the causal antecedent of and is represented by the world of phenomenal experiences, must provide a point of contact between the two realms. In fact, the requirement is much stronger: it must provide for a point of identity between the two. Otherwise, to borrow a phrase from the tradition, the perceiver will be locked in the circle of his own ideas. As I have interpreted it, the Aristotelian schema provides a solution

everything that Aristotle says on the subject—with the possible exception of what he says about the active intellect. The latter, however, presents a puzzle even on traditional interpretations. However, a little later I shall try to show that on my interpretation even the active intellect can be understood in a consistent and coherent manner.

[16] Another way of putting this would be to say that this higher-order structure instantiates a first-order neurological state which, considered from a purely logico-mathematical point of view, can be put into a direct one-one correspondence with those features of the stimulus-object which are causally active in the relevant sense. (I here ignore threshold effects and similar neurological phenomena. A discussion of these would complicate the issue unnecessarily for the present context.)

to this transcendental bridging problem: by means of the postulate of the identity of form in percept and perceived.

The shortcoming which I mentioned lies in another direction: in the properly perceptual aspects of the theory. More precisely, it lies in the complete absence of interpretative, conceptual and categorical machinery from the schema; a lack which ultimately leads to a disappearance of the distinction between being and perceiving by collapsing the latter into the former.[17]

But let me put this somewhat differently and in somewhat greater detail. There are two major problems that are faced by any would-be theory of perception. One of these I have already characterized as the transcendental bridging problem—how to get from the phenomenal to the non-phenomenal. The other problem is, how to account for the cognitive significance of the phenomenal itself. Struck by the importance of the transcendental bridging problem, Aristotle solved it in the manner just indicated: by the postulate of the metaphysical identity of form. The mind acquires the form of its perceptual object and becomes that which it perceives.[18] But this very solution introduces the second major problem in full force. For, perceptual awareness, if it is to be an awareness, cannot allow perceiver and perceived to coalesce into one. That is to say, the perceptual object must be experienced as a percept. An element of distinction—of distance, as it were—must obtain between the percept and the perceiver. Otherwise, the perceiver would quite literally be his own (phenomenal) world. This distinction, however, can obtain if and only if the percept has cognitive significance; more precisely, if it is apprehended under some categorial structure.[19]

It is on precisely this point that the Aristotelian analysis fails. To be sure, Aristotle does appear to take some small steps in the direction of a solution. In particular, his concept of the

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[17] That is why there is a certain irony in Aristotle's own phrase, the mind " becomes the object which it thinks."

[18] To paraphrase Berkeley, *percipere* becomes *esse*.

[19] Kant saw this point nicely.

active intellect with an illuminating function seems to go some way towards filling the categorical need.[20] However, these steps are so tentative and superficial—as witness the medieval interpretations on this score—that they scarcely even amount to a recognition of the problem, let alone a proper solution.

It is at this point that the medieval advances over the basic Aristotelian schema manifest themselves; in particular those which we encounter in the writings of St. Thomas Aquinas. Here we seem to find a clear recognition of the necessity of categorical interpretation of phenomenal data in order for the latter to attain cognitive significance and thus become percepts, rather than remaining merely aspects of the phenomenal totality which otherwise would be the perceiver. To this end, the Aristotelian distinction between active and passive intellect is amplified, developed and employed to full advantage. The result is an analysis of perception which not merely solves the transcendental bridging problem, but the problem of percept-perceiver distinction as well.

In the remainder of this paper, I shall show how this is the case. I shall do so by considering first the traditional interpretation of Aquinas on this topic, and shall criticize it as failing to appreciate the Saint's philosophical contributions on this issue. I shall then sketch what I take to be the correct interpretation. I shall conclude by taking a brief look at the Franciscan tradition critical of Aquinas's account. Here I shall attempt a brief reply, showing that this critique is misdirected since based on a faulty understanding of the thomistic notion of abstraction and the Aristotelian concept of form.

II

Traditional accounts of Aquinas's theory of perception generally begin by stating several rather fundamental points: that for Aquinas the human soul is the form of the (human) body; that at birth the human mind is a *tabula rasa*, devoid of any

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[20] I am not stating that Aristotle consciously intended the latter for this purpose or introduced it for this reason.

and all concepts; and that the thomistic analysis of perceptual awareness locates the sources of such awareness—as indeed of awareness in general—in the senses, which provide the raw materials for cognition. These theses are then interwoven in something like the following manner: in sensation, the sense-organ is affected by an external object, resulting in a sense-impression. This sense-impression, in turn, is nothing other than an " immutation " of the sense by the form of the stimulus-object: a reception of the form of the object into the sense, but without the matter. Sense-impressions from the various senses are then combined by an agency known as the common sense into a complex image; that is to say, the sensible species of the various senses are then combined into a phantasm. Possession of the phantasm, however—so the account continues—does not yet constitute perceptual awareness. That would require that the phantasm be actually understood.[21] The phantasm, however, is a creature of the senses; a form instantiated in the material substratum of the senses. Matter, however, is not only the principle of individuation; it is also, and indeed thereby, the principle of the unintelligibility of forms instantiated in a material substratum. Consequently the phantasm—the form of the stimulus-object as instantiated in the material substratum of the senses—is unintelligible as it stands. In order to become intelligible, it must be dissociated from its material context. Furthermore—so the account continues— perceptual awareness is a mode of knowledge: of the external world, to be sure, but knowledge nevertheless. As such, it must be propositional in nature; which is but another way of saying that it must involve judgment: judgment to the effect that the phantasm in question is of a certain sort.[22] This, in turn, requires concepts: universals under which the phantasm can be subsumed. The radical empiricism of the thomistic theory implies that *nihil est in intellectu quod non prius fuit in sensu;*

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[21] Strictly speaking, more would be required. But see below.

[22] Once more, strictly speaking this is incorrect. It should read, that the object as apprehended through the phantasm is of a certain sort.

more specifically for the present context, that the generic concepts required for such judgments must somehow be supplied by the senses. The only things the senses supply are sensible species. These, in virtue of their materiality, are particular. Consequently, as one commentator has it, " It is necessary to postulate an activity on the mind's part, in order to explain how the universal concept is formed from the material provided by sense-experience." [23] It is here that abstraction enters in a dual capacity. In abstracting the form of the stimulus-object from its associated substratum of the senses, it not merely makes the form potentially intelligible, but also abstracts it from its individuating condition and thus results in the form *qua* universal. This is then given to the passive intellect. The latter, now in possession of a generic concept, performs a " conversion to the phantasm "—sees the latter as it were *sub specie universalis*—and in thus seeing it, perceives through it the stimulus-object as an entity of a particular kind.[24] In short, it now actually perceives.[25]

As I said, the preceding is pretty much the course of a standard analysis of Aquinas on perception. Yet, although fairly standard, it is unacceptable as a whole. While its analysis of the judgmental characteristic of perceptual awareness cannot be faulted, its characterization of abstraction is superficial and confused, obscuring precisely those points of the doctrine which constitute its strength. In so doing, the account obfuscates and falsifies the whole analysis, leaving it an easy prey to negative critique. Therefore, in order to get clear on what Aquinas actually does say, and to show how his account is not only a substantial improvement over that of Aristotle but also evades traditional critique, I shall now retrace and analyse the various steps of the Saint's theory as we find them in his works.

Let me begin by stating that Aquinas had a very clear-cut understanding of the transcendental bridging problem and that

[23] Copleston, F. C., *Aquinas* (Penguin Books, London, 1955), p. 175.

[24] Cf. notes 21 and 22 above.

[25] Cf. Copleston, *passim;* see also F. C. Copleston, *History of Western Philosophy*, Vol. II, Part 2, Chapter 38, to mention but one rather well-known commentator.

he accepted the Aristotelian solution in terms of identity of form. That is to say, he tells us that

. . . whatever operates must in some sense be united to the object in relation to which it operates.[26]

and that this union of what operates and what is operated on is effected by means of the form which is shared by both—at any rate, in perception. As he put it,

. . . in sensible things it is to be observed that the form is other-wise in one sensible than another. . . . In the same way, the sensible form is in one way in the thing which is external to the sense, and in another in the senses which receive the form of the sensible things without receiving their matter.[27]

[27] *Ibid.*, q. 84, a. 1.

As I have tried to show in the first part of this paper, the pos-sibility of veridical perception—indeed, of perception *tout court*—hinges on two factors: the possibility of contact be-tween the perceiver and the object of perception, and on main-taining a distinction between perceiver and percept on the phenomenological level—on maintaining what I have called psychic distance. In accepting the Aristotelian solution to the transcendental bridging problem, Aquinas solved the first of these problems facing any theory of perception. So far, then, substantial agreement between Aquinas and Aristotle obtains; and so far, the standard account is acceptable. It is with respect to the second problem that Aquinas and Aristotle begin to part company; and it is at this point that the traditional account becomes faulty. For, it is at this point that Aquinas introduces the theory of abstraction. As we saw, the traditional account has it that the reason for abstraction is to make the sensible species and phantasm actually intelligible—i. e., to restore an intelligibility to the form which it has lost due to its association with matter—and by that very move to provide a concept.

It is on the first of these that I want to concentrate. What seems to be implied by it is, among other things, that so long

[26] *Summa Theol.*, I, q. 78, a. 3.

as the form is instantiated in a material substratum, it will be particularized and individuated by the latter, and therefore will be unintelligible in principle. In fact, the traditional account takes this to be one of the most fundamental thomistic tenets. Unquestionably, texts can be cited which, when viewed in a certain way, support this interpretation. The following would be cases in point: " The materiality of the knower and of the species whereby he knows . . . impede knowledge of the universal; " [28] wherefore we must postulate in the human mind " some power to make things actually intelligible by abstracting from the material conditions." [29] However, there are weighty reasons for contending that such a use of these passages is erroneous; that they—and others like them—must mean something else, and that on pain of incoherence and contradiction of the thomistic system as a whole. In particular, there are two series of considerations which bring this out—the one textual, the other conceptual in nature. I shall begin by sketching the latter.

The conceptual considerations center around Aquinas's theory of the (human) soul and its manner of operation. As he repeatedly tells us, the (human) soul is the form of the (human) body.[30] The body, of course, is material. Therefore, whatever else may be the case, the soul of a particular person, while in this life, is a form instantiated in matter. Consequently, if matter is the principle of individuation, it follows that once the material context of the soul is lost, its individuality will be gone with it. In other words, if death is the separation of soul from body (matter), then on this understanding of the role of matter, death will entail a loss of identity for the soul. Now, Aquinas himself denies such a loss;[31] and and indeed, acceptance of it would go contrary to the very faith that he professes. Also, Aquinas himself gives an account of

[28] *Ibid.*, q. 76, a. 2, ad 3.
[29] *Ibid.*, q. 79, a. 3.
[30] Cf. *Ibid.*, q. 76, *passim; Summa Contra Gentiles,* Bk. II, chap. 68, 70, 71, f.
[31] Cf. *Summa Contra Gentiles,* Bk. II, chap. 81, no. 7, f. to mention but one of many instances.

the continued identity of the soul which has nothing to do with matter as an individuating agent. As he puts it, the continued diversity of the soul stems

from the diversity of the commensuration of the souls to (their respective) bodies: since this soul is adapted to this and not that body, and that soul to another, and so on for all other cases. And this adaptability remains in the souls even after their bodies have perished.[32]

To be sure, he presents this as a special case: It holds only for forms whose " being " does not depend upon matter. But that is really beside the point. The point is, that on pain of assimilating souls to the genus of angels, the commensuration of each soul to its body must be an accidental feature, not a specific one. In which case accidents are here said to be individuating: immaterial accidents, to be sure, but accidents nevertheless. The same reasoning that applies to souls can be applied, *mutatis mutandis,* to forms that do depend for their " being " on matter. Therefore the upshot of this is that matter cannot be viewed as the principle of individuation; that a different appraisal of passages putatively to that effect must be found. And clearly, such an interpretation will affect our understanding of how a form can be particularized *qua* instantiated in the senses.

However, there is a further, and for the present context, much weightier conceptual difficulty. It concerns human perception, and arises with respect to the operation of the human soul when informing a body. The difficulty is this: The soul, when in a body, is in a material substratum. On the traditional interpretation sketched above this implies that because of its " commensuration " to the body, it will be individuated. That, however, entails that *all* modifications and states of the soul, when in such a condition, will be particular as well. That is to say, *any* accidental form adhering to the soul will also be particularized. Now, individual acts of understanding and per-

[32] *Ibid.,* no. 8.

ceptual awareness are states of the human mind—accidents, as it were, advening to the soul.[33] Whence it follows that, while in such a state, the human mind cannot have any understanding of universals: for these to be in the mind *qua* universals would entail a contradiction of the preceding. Therefore it follows that if matter is the principle or occasion of individuation of the soul, and if form and matter are understood in the traditional sense, the soul will be incapable of judgment when in a body. Which, in turn, means that while in an embodied state the soul cannot know anything at all.

This conclusion is unacceptable. Not only is it contradicted by actual fact; it also runs counter to everything that Aquinas says about human knowledge in general and abstraction in particular. In fact, it would render the latter complete nonsense. Therefore, whatever the elements giving rise to this conclusion, they must be rejected; or, if they are passages from Aquinas himself, they must be reinterpreted. Either that, or leave the thomistic analysis in complete incoherence.

Happily, this last alternative can be ruled out without conceptual contortions. There are passages in Aquinas' writings which, even when considered on their own, stand wholly at variance with the traditional interpretation of matter and its role as individuating. And this brings me to my second, textual series of considerations which I mentioned above. However, instead of citing passages on their own in a purely critical effort, I should like to change my approach: I should like to adduce them as considerations leading to and incorporated into what I take to be the correct appraisal.

Confining the discussion to the *Summa Theologiae,* we come across the following statements. Nor are they isolated. For every one of them, a dozen others could be cited to similar effect:

(i) . . . the things which belong to the species of a material being (such as a stone or a man, or a horse) can be thought without the

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[33] Note: I am here not talking about the power but the exercise of it. The powers themselves, of course, are not accidental but essential.

individuating principles which do not belong to the notion of the species. This is what we mean by abstracting the universal from the particular, or the intelligible species from the phantasm. In other words, it is to consider the nature of the species apart from its individuating principles represented by the phantasm.[34]

(ii) The intellect, therefore, abstracts the species of a natural thing from the individual sensible matter, but not from the common sensible matter. For instance, it abstracts the species *man* from *this flesh and these bones* which (latter) do not belong to the species as such but to the individual and (hence) need not be considered in the species. But the species of man cannot be abstracted from *flesh and bones.*[35]

(iii) Now it is manifest that quantity is in a substance before sensible qualities are. Therefore qualities such as number, dimension and figure—which are determinations of quantity—can be considered apart from sensible qualities, and this is to abstract from sensible matter.[36]

(iv) ... intellect, which abstracts the species not only from matter but also from the individuating conditions of matter, knows more perfectly than do the senses, which latter receive the form of the thing known; without the matter, to be sure, but subject to material conditions.[37]

The important point that is contained in these passages and to which I want to draw attention is this: we must distinguish between the material condition of a form—its individuality—and the matter of a form—its unintelligibility. Let me try to show how and why this is the case.

Excerpt (i) talks about abstracting the universal from the particular, and equates this with abstracting the intelligible species from the phantasm. This, so the passage continues, is to consider the nature of the species apart from its individuating conditions which are represented by the phantasm. Aquinas's choice of words is here a clue: only formal features can be represented. It lies in the nature of representation that this should be the case. Therefore, the individuating principles of

[34] *Summa Theol.,* I, q. 85, a. 1, ad 1; cf. *Summa Contra Gentiles,* Bk. II, chap. 77, no. 2.

[35] *Ibid.,* ad 2.

[36] *Ibid.*

[37] *Ibid.,* q. 84, a. 2; see also preceding article.

the instantiated form must themselves be formal in nature. Otherwise they could not be represented by the phantasm.[38] In this context, (iv) is also relevant. Not only does it distinguish explicitly between matter and " the individuating conditions of matter " ; it also states that the senses receive the form of the thing known but without the matter, subject, however, to these material conditions. Now as it occurs here, this last phrase is something of a logical dangler. It may refer either to the condition of the form as it is in the thing, or to the material nature of the senses in which the form now finds itself. It is tempting to opt for the second alternative; all the more so, since the senses are material in nature. However, to do so would entail unacceptable consequences: namely, the thesis that the form of an object enters the sense as a universal, and that it is the material nature of the sense that engenders the particularity of the form as it occurs in the sensible species and the phantasm. This consequence is doubly unwelcome: for the reasons just indicated, it renders Aquinas's talk about the representation of material conditions nonsensical. Furthermore, it contradicts his own explanation of what these " material conditions " are: namely, the " individual properties," [39] " determining qualities " or " sensible qualities " of the object as it occurs in the world. (iii) above goes some way towards clarifying this point. (ii) is also instructive. There, abstraction is represented as the removal of the species or form from the individual sensible matter, where elsewhere Aquinas describes the latter as matter " under determinate dimensions." Again, as such, the latter must be formal in nature—especially given (ii). Therefore, what Aquinas says about " material conditions " must be understood in the sense of the particular accidental yet formal conditions under which a form occurs when instantiated in the sensible world.

Material conditions, therefore, are conditions of individuality. Conditions which are formal in nature. Given this, we should

[38] Or by anything else, for that matter.
[39] *Summa Contra Gentiles*, Bk. II, chap. 77, no. 2.

expect that a form occurring under such conditions—a form thus particularized or individuated—would not on that account be unintelligible. And this is precisely what Aquinas himself says: " Intelligibility is incompatible with the singular *not as such but as material.*" [40] It is matter, therefore, and not the material conditions that are the cause of unintelligibility. Nor is it difficult to see why this should be the case. Matter, after all, is a metaphysical entity which is non-formal in nature. As such, by definition, it is unintelligible, and anything associated with it or instantiated in it will *eo ipso* become unintelligible as well—at least, while in this condition.

Matter and material conditions must therefore be distinguished. Matter is a metaphysical entity. As such, instantiation in it is accompanied by certain features: those which were previously summed up under the heading of material conditions. That is why—and this brings me back to something I said before—instantiation in a material substratum brings unintelligibility with it, from the side of the matter, as a non-formal but essential constituent of the instantiation.

But—and here I correct what I said a moment ago—*in a sense* it also brings with it unintelligibility from the side of the material conditions. This last requires some comment; and here what I said before about judgment and understanding is à propos. A form occurring under material conditions will *ipso facto* be particularized. Understanding, however, requires a universal. Therefore, although intelligible in the sense of being something which could be understood if there were a concept under which it could be subsumed, the form occurring under such conditions is actually unintelligible: as yet, there is no generic concept to perform the conceptual judgmental labour. Now, if we are not very careful in our use of words, we may see the distinction between *matter* and *material conditions* disappear from our vocabulary and have both of them referred to by one and the same term: *matter.* This is neither difficult to imagine, nor is it unlikely to occur. The one, after

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[40] Cf. *Summa Theol.*, I, q. 86, a. 1, ad 3.

all, is a universal accompanying characteristic of the other. Furthermore, forms existing under one condition *eo ipso* will exist under the other as well, and therefore will be doubly unintelligible. In an epistemological context, where concern centers around intelligibility in the first place, it is easy to seize on the latter as the identifying characteristic and let the distinction which I just mentioned disappear. This, I suggest, is what happened in the traditional context. But to let it continue can lead to confusion. Therefore, to avoid possible difficulties on this score, I shall now introduce two distinct terms for the two: *metaphysical* and *epistemological matter* respectively. By metaphysical matter—m-matter for short—I shall understand the ontological substratum of instantiated sensible forms; by epistemological matter—e-matter for short—I shall understand the particular individual (formal) conditions of their instantiation.

E-matter and m-matter, therefore, must be distinguished. And this brings me to my next point. Given the distinction that I have just sketched, it ought to be possible to perform two types of abstraction: One, of the instantiated form from the m-matter in which it obtains, i. e., from its metaphysical substratum; and one from the e-matter: the individuating formal context. Let me call the first m-abstraction. It would result in the form of the object by itself, but still under the determining and individuating formal conditions under which it occurs when instantiated. Abstraction in the second sense—e-abstraction for short—would be a removal of the generic form as such from its individuating conditions. In the terminology which I used once before, e-abstraction would be a removal of the determinable from the determined: a generalization of the particular to the universal. M-abstraction preserves particularity but removes the form from the m-material metaphysical substratum. E-abstraction, on the other hand, removes from the particularity of the form's e-material condition and thus results in a universal. Since e-abstraction proceeds in the intellect, its result will also be found there. Enter the principle that the received is in the receiver according to the nature of

the receiver. In the present case, this means that the universal resulting from e-abstraction will be in the mind " by way of idea." In other words, it will be in the mind as a concept. It goes without saying that once the mind is in possession of such a concept, it has all the necessary requisites for making a judgment. In short, it is able properly to perceive.

If we now return to St. Thomas Aquinas, what I have just presented in theoretical terms amounts to this: Aquinas accepts the traditional Aristotelian substance-accident ontology. This much is commonly accepted, and is correct. According to that sort of metaphysics, an ordinary sub-lunary object is an ontological complex consisting of what I have called m-matter and form. The form is the principle of structure, as I explained before.[41] The m-matter is the existential substratum: that non-formal entity which exemplifies the form. As such, it is also the occasion for the material conditions attendant upon instantiation in m-matter to come into play. In other words, it is the condition for e-matter.

Now, in sensation, so Aquinas tells us,[42] the form of the object enters, but not the matter. In the light of the preceding discussion, we can understand this best as referring to the m-matter of the form as it is instantiated in the world. The e-matter, being the " particular conditions " or " individuating principles," [43] of course enters. Aquinas then goes on to say that the phantasm which ultimately results is particular and unintelligible because of its matter.[44] This is so because of both the e-matter represented by the phantasm and the m-matter or material nature of the sense in which the form obtains. That is to say, being in a material substratum, the particular form of the stimulus-object is *ipso facto* unintelligible as such; and being particular—involving e-matter and lacking the presence of a categorial generic concept—it simply could not be understood, even if it were not in a material substratum. M-abstrac-

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[41] Cf. my discussion of Aristotle on form above.
[42] Cf. note 37 above.
[43] *Summa Theol.*, I, q. 85, a. 1, ad 1.
[44] Cf. note 28 above.

tion now occurs. It is the removal of the form from the material substratum of the senses. This renders the form of the stimulus-object potentially intelligible. In the absence of a generic, categorial concept, however, it is not, and cannot as yet be, actually understood. Hence e-abstraction: to provide the generic concept by means of which the entity is finally understood.

At this stage, it may be useful to recast the reasoning underlying the preceding in the terminology I developed some time ago. This will have the benefit of stating the issue in more contemporary terms, as well as bringing the account into line with what I said in connection with Aristotle, thus showing how the two accounts dovetail.

As I have reconstructed it so far, then, Aquinas's theory amounts to this: the stimulation of the sense by the stimulus-object results in a first-order determination of the (neurological) possibilities inherent in the sense insofar as the latter is a second-order system. This first-order determination—this neurological state—is strictly isomorphic to the structuring principle of the stimulus-object insofar as the latter is causally active in the relevant causal modality. Object and sense will thus share one and the same form. (They differ, however, in their m-matter.) Given further relevant sensory input, both in this and other sensory modalities, a complex first-order determination of the neurological system finally results, involving all data from the different sensory modalities. This complex determination is the phantasm. It, too, is isomorphic to the stimulus-object, albeit in a larger domain.[45] However, since it exists in a material substratum—the m-matter of the neural net—and since it is determined by material conditions—the e-matter of the form as it occurs in the object: the individuating formal features represented by the phantasm—the resulting complex is doubly unintelligible. Abstraction then enters in. First, m-abstraction. It removes the form from the material substratum of the senses—the structuring principle from the neurological net in which it is exemplified—and thus makes

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[45] I am assuming an ideal case, without error.

it potentially intelligible. However, here it is important to remember that m-abstraction does not remove the individuating conditions of the form. In the terminology of a moment ago, its result is that the form of the stimulus-object *qua* structuring principle is now a first-order determination of the mind's possibilities of structure insofar as the latter is a purely mental, higher-order system. As such, it is intelligible. However, to be intelligible and to be actually understood are two entirely different things. Here enters what I have described as Aquinas's fundamental modification of the Aristotelian scheme: e-abstraction. That is to say, Aquinas appears to have realized that perceptual awareness is not a matter of being, but of being aware: of *judging*. He also seems to have realized that judging requires not merely an intentional object—what the judgment is about—but also conceptual predicates: what is said about it. The former is supplied by m-abstraction and is particular. The latter, however, must be generic and cannot be supplied in that way. To supply them is the work of e-abstraction. For—and this is where m-abstraction and e-abstraction make contact—the generic concepts used in formulating the perceptual judgments are themselves nothing other than modifications of the intellect—" informations " of the mind—where the basis of such concepts is the particular determination resulting from m-abstraction.

Let me be still more precise. The very making of a judgment pressupposes that whatever is judged and whatever is judged about it are logically commensurate with each other. The medievals were as much aware of this as Gilbert Ryle. But the medievals were also aware that a generic concept is a determinable, susceptible of particular and ultimate determination to qualitative singularity. The fact of such an awareness is obvious to all who are familiar with the conceptual import and role of the Tree of Porphyry.[46] What surer way, then, to

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[46] For a more explicit and detailed discussion of the historical context from Aristotle to William of Ockham, see the Introduction to my translation of Ockham's " Commentary on Porphyry's Book of the Predicables," *Franciscan Studies,* Vol. 33, Annual XI (1973), pp. 172-254,

guarantee commensurability of subject and predicate—of intentional object and generic category—than to construe the relationship between them in terms of the determinate—determinable relationship of the Tree of Porphyry? The predicate *qua* generic form will then be the determinable under which falls the subject as a determined special case.

The schema for a solution to the problem of perceptual judgment is thus given within the framework of the medieval logical tradition. The direction which the implementation of this schema then takes is determined by the inveterate empiricism of the Aristotelian position underlying the whole medieval domain of epistemological speculation. *Nihil est in intellectu . . .* is a catch-phrase that is sufficiently familiar. In the present context, its underlying principle is already implemented in m-abstraction. What is in the mind—the form—quite literally comes from the object through the senses. Enter the further thesis that the received is in the receiver according to the nature of the receiver. The result is that the form is in the mind as a concept: as it were, by way of idea. This concept is the ultimate determination of a generic form, as per the Tree of Porphyry. E-abstraction enters as a reverse application of the principle of determination underlying the Tree. This results in a determinable: a generic concept. The applicability of the concept to the singular species is, of course, a foregone conclusion. The actual execution of this is a judgment: not, to be sure, in a syllogistic sense, but in the Kantian sense of categorial and interpretative awareness of the manifold of presentations. In this way, then, perceptual awareness obtains.

But here we must be careful not to fall into a serious misunderstanding. The intelligible form as well as the generic concept, although essential to the process of understanding and perception, are not themselves what is perceived. It is *through* them, as Aquinas tells us,[47] that the stimulus-object is perceived. Once more in contemporary terminology, the point is this: we must distinguish between the intentional object of the act of understanding and the metaphysical object of the

[47] *Summa Theol.,* I, q. 85, a. 2.

act *qua* ontological unit. The latter is the potentially intel-
ligible form as it results from m-abstraction and as it is seen
through the categorial glasses provided by e-abstraction. What
is understood, however—the intentional object—is the stimu-
lus-object outside of the mind. As Aquinas says,

> . . . if what we understand is merely the intelligible species in the
> soul, it would follow that every science would be concerned not
> with things outside the soul but merely with the intelligible species
> in the soul.[48]

In other words, if the species were the intentional object of the
act, our understanding and perception would be trapped within
the circle of ideas. The concepts, therefore, as well as the result
of e-abstraction, can serve only as the means whereby the in-
tentional object—the object in the world—is understood. They
serve, so to speak, as the metaphysical carriers of awareness.
Of course, an element of self-awareness may be involved in the
act of perception. In which case, as Brentano will later state
it, this metaphysical basis will function as a secondary object
of awareness. But this is merely incidental. Aquinas expresses
it briefly as follows:

> But since the intellect reflects upon itself, by such a reflection it
> understands both its own act of understanding as well as the species
> by which it understands. Therefore, the intelligible species is
> secondarily that which is understood. What is understood pri-
> marily, however, is the thing of which the species is a likeness.[49]

III

Herewith I come to the end of my analysis of abstraction
as it is found in the writings of St. Thomas Aquinas. I have
tried to clothe the theory in modern garb and have tried to
show in what sense it can be construed as relatively successful,
even from a modern point of view. In passing, I have also tried
to show why, as well as wherein, the epistemological account
proffered by Aquinas represents a distinct improvement over
that given by Aristotle.

[48] *Loc. cit.*
[49] *Loc. cit.*

I also said in the beginning that if abstraction is understood in the way in which I have suggested, most if not all of the criticisms directed against the theory by the so-called intuitionists—people like Duns Scotus and William of Ockham—go by the board. The reason for this contention should now be apparent. As Fr. Sebastian Day has so ably pointed out,[50] the major thrust of the intuitionists' critique is that with the postulate of species—sensible or otherwise—an insuperable barrier is erected between the perceiver and the world. He will necessarily be locked in the circle of his own ideas. The theory of abstraction, which requires such species, would therefore lead to an in principle unsolvable scepticism with respect to the senses. Only intuition—the direct confrontation of the mind with reality, without any intervening species—could avoid this situation. Therefore, so the intuitionists have it, the theory of abstraction has to be abandoned.

However, if the theory of abstraction is understood in the way I have just sketched, the thrust of this critique is wide of the mark: The alleged barrier between mind and reality simply does not exist. Or, more precisely, what is taken to be a barrier is no such thing. For, to recall what I have said about forms, the latter must be understood as principles which may be variously realized in distinct substrata. *Qua* instances, these realizations will of course be distinct. On a purely formal level, however, one and the same form will be in all. This, it may be recalled, was the whole point of developing the theory in order to solve the transcendental bridging problem. Because of the formal identity at the heart of the theory, the mind is in contact with reality. Therefore the problem of a barrier, as alleged by the intuitionists, simply does not exist.

Furthermore, if my account is correct, the abstractionist himself may now turn to the attack. As I have been at pains to point out, perceptual awareness necessarily involves judgments. Judgments, in turn, require generic concepts. The theory of abstraction provides for these without having re-

[50] Sebastian Day, O. F. M., *Intuitive Cognition: A Key to the Significance of the Later Scholastics* (Franciscan Institute, St. Bonaventure, N. Y., 1947).

course to any sort of innatism, or appealing to divine illumination. At the same time, it guarantees that the generic concepts which it does provide will be commensurate with their conceptual objects.[51] Therefore the conceptual machinery necessary for perceptual awareness is provided by the theory of abstraction. Not so, however, with the intuitionists' thesis itself. It does not provide for generic concepts—at least, not without claiming a miracle, or succumbing to innatism, or devolving into a species of the theory of abstraction. But without generic concepts, judgment cannot take place. In which case, awareness in a cognitively significant sense cannot take place either. Since this is not an accident of development but an inherent feature of the intuitionistic scheme, it fails as a theory of perceptual awareness. Of course there is a way to save the theory. Ockham, at one point, seems to have had something like this in mind when he reintroduced abstraction and talked about it as dealing with the data of intuition, rather than with sensible species and phantasms.[52] But this merely represents a wrinkle on the theory of abstraction itself. The core of it is left untouched. All that has changed is the account of how the mind comes by the raw data on which abstraction is practiced. Furthermore, it is changed by appealing to a process which is never explained: The concept of intuition itself can hardly count as a model of clarity. It is really a name for an unknown, and has no explanatory force.

Finally, as an aside, let me try to pinpoint the areas in which criticism of the theory of abstraction generally goes awry: First, on the concept of form. I need say no more about this. Second, on the role of abstraction itself. This, as I have tried to show, is pardonable, since the concept as presented in the general accounts is systematically ambiguous between e- and m-abstraction. Third, confusion frequently results from a

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[51] I have ignored, and shall continue to ignore, the problem of error. It is a problem for any theory of perception.

[52] Cf. *Quodlibeta* I, Q. XIII; Prologue to the *Ordinatio*, Q. I, N (p. 15 in critical edition, Franciscan Institute, St. Bonaventure, N. Y., 1967), to mention but one instance.

failure to keep two things apart: the metaphysical vehicle of understanding and the intentional object of the perceptual act. The former is the species; the latter, the external object. Only when these two are conflated will there be even a suspicion of a circle of ideas.

I began by saying that the historical doctrine of abstraction as we find it in the writings of Aquinas has its roots in Aristotle. I have tried to show how this is the case. I also said that the doctrine, once explicated clearly and put into more modern garb, is immune from traditional critiques directed against it. Again, I have tried to show how and why this is so. And with this, I have come to the end of my exegetical endeavour. I am sure that the modern garb in which I have clothed both Aristotle and Aquinas will seem strange to some. I can only hope that the cut of the garment will not be deemed too outlandish, and in any case will not be confused with either the fit or the suitability of the dress.

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CROSSING BERGER'S FIERY BROOK:
RELIGIOUS TRUTH AND SOCIOLOGY OF KNOWLEDGE

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I

GENERAL EPISTEMOLOGICAL problems inevitably have a bearing upon questions about truth in particular areas of intellectual concern. The rule applies to the inquiry of the philosopher or the theologian about religious truth no less than to any other inquiry. Thus it hardly comes as a surprise that shifts in epistemology have repercussions in the philosophy of religion and in theology. One of the peculiarities of epistemology in the last two centuries has been the extent to which it has been influenced in its turn by developments in narrower theoretical disciplines. Few disciplines have been as influential in this regard as sociology, especially the variety of sociology known as the *sociology of knowledge*. In highlighting the element of social contingency and variability in human thinking, the sociologist has opened up a special set of conundrums. How do standards of judgment which may vary from society to society have any claim to over-riding authority? How does one maintain a present position with confidence when past positions appear quite clearly to have drawn their plausibility not from a vision of reality but from the support of people and institutions? The potential regress is dizzying, and the worry about it has affected philosophers and theologians in great numbers when they have turned to the appraisal of religious beliefs.

The figure whose work has been the most influential of late in bringing people to recognize the importance of the sociology of knowledge in the area of religion has been Peter L. Berger,

an Austrian-born sociologist and social theorist who teaches in the United States and who writes in English. Unlike earlier sociologists of knowledge such as Max Scheler and Karl Mannheim, he has insisted that sociological and epistemological matters be kept separate. To unite them would be like trying " to push the bus in which one is riding." [1] What is more, he would bracket out the " truth-question " with respect to the beliefs he studies as a sociologist and not enter philosophical or theological discussions with the believers in the course of those studies. [2] Yet he has also been willing to step outside the sociological framework in many of his books and articles beginning with *The Noise of Solemn Assemblies* in 1961. Consequently, despite his persistent endeavor to keep the enterprises separate, he has found himself laboring as often as not at the intersection of sociology, epistemology, the philosophy of religion and theology. It is at this intersection that I would like to join him in the following pages. Sections II and III will focus on his movement to and from the meeting-point whereas section IV will offer some critical reflections on his attempt to pursue religious truth on the other side of the sociology of knowledge. Needless to say, one will have learned much about the problems themselves in following Berger's steps and will have said much about handling them in evaluating his approach.

II

The relevant work by Berger appears in two main clusters, the first in 1961 with the publication of *The Noise of Solemn Assemblies* and *The Precarious Vision* and the second between 1967 and 1970 with the publication of *The Social Construction of Reality, The Sacred Canopy* and *A Rumor of Angels.* The books of the first cluster have a particular importance because of the poignancy with which the dizzying effects of the sociological perspective stand forth. Yet beginning with these books

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[1] Berger and Thomas Luckmann, *The Social Construction of Reality: A Treatise in the Sociology of Knowledge,* (Garden City, 1967), p. 13.

[2] See *ibid.,* pp. 13-14, on the bracketing.

would make the present article overly long and repetitive, and such a beginning is unnecessary in view of the fact that the sociological direction with which one must begin remains fairly constant through all of the books just mentioned. Indeed, *The Sacred Canopy* provides the best point of entry inasmuch as there Berger applies his sociology of knowledge in the clearest fashion to the examination of religion and especially of religious belief. The most significant differences between the two clusters come when he turns from this enterprise to sorting out the special questions about truth provoked by his efforts as a sociologist. I shall be returning to these differences in due course.

The fundamental posture of *The Sacred Canopy* is somewhat as follows. The origin of society lies in the collective activity of human beings; and, while varying collectives may and often do construct diverse social forms, the members come, nonetheless, to take these social forms to be thoroughly real and objective. Society stands thus as "external, subjectively opaque and coercive facticity " as do all the related cultural products of people.[3] The movement is a dialectical one: instinctually under-determined human animals externalize themselves through the things they make (and social arrangements are, in important ways, thing-like) ; the things made by men (including the social arrangements) are encountered as objective and real; finally people themselves are molded by these things (above all, by the social arrangements) . The term for the making in *The Sacred Canopy* is " world-construction "—*world* being taken in a phenomenological sense which prescinds from any ontological question about the ultimate status of the world constructed. The other side of this world-construction is knowledge of the world. People establish an order, a *nomos,* for their activity; and one of the primary features of this order is that it can be known and talked about and that decisions can be made in terms of it. They are in the process of establishing this *nomos* and con-

[3] *The Sacred Canopy: Elements of a Sociological Theory of Religion* (Garden City), 1967, p. 11.

fronting it through their participation in so basic an activity as language.[4]

The nomizing process is never complete, and the society depicted in *The Sacred Canopy* proves highly precarious. Human beings can take a distance from their roles, and they face situations on the margin of social life which bring home the contingency of the *nomos* of their society and of the *nomoi* of all societies. It is Berger's conviction that the awareness is not only a threat to the taken-for-grantedness of the social order, but also a frightening intimation of ultimate chaos to the people who achieve the awareness. The principal interest in *The Sacred Canopy* is with religion as a means of off-setting this consciousness and protecting the *nomos*. It legitimatizes the everyday *cosmos* by constituting a sacred *cosmos* to which the everyday one can be related. It locates ordinary things and activities around this-worldly and other-worldly entities of mysterious and awesome power; and, in doing so, it projects the human order into the totality of being. ". . . religion is the audacious attempt to conceive of the entire universe as being humanly significant." [5] Such a humanly significant universe can protect the everyday realm by tying it in with a higher one and furthermore by encompassing the marginal situations which evoke chaos and anomie. Religion may also play a revolutionary role, but more characteristically it provides support for the existing situation of society.[6]

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[4] See *ibid.*, chapter 1, on the process of world-construction. A similar analysis appears in *The Social Construction of Reality*, pp. 47-61, and in Berger and Stanley Pullberg, "Reification and the Sociological Critique of Consciousness," *History and Theory*, IV: 2, 1965, pp. 196 ff. The term *construction* in these writings clearly does not refer to a deliberate process.

[5] *The Sacred Canopy*, p. 28.

[6] Berger discusses the various possible ways of defining *religion* in the first appendix of *The Sacred Canopy*. He considers himself to be operating with a substantive definition inasmuch as he identifies religion "in terms of the positing of *a sacred cosmos.*" In "Some Second Thoughts on Substantive versus Functional Definitions of Religion," *Journal for the Scientific Study of Religion*, June 1974, pp. 125-133, he takes a quite strong position against purely functional definitions of religion. It would seem fair to say, however, that the emphasis in his sociological discussions of religion has been consistently on its typical social functions.

Legitimation requires cognitive and ontological assertions, and symbol systems are the most formal loci of these assertions. Religious symbol systems receive their principal consideration in *The Sacred Canopy* under the heading of " theodicy," by which Berger understands any account justifying the order of things and particularly any account handling the problem of evil. Every *nomos* implies a theodicy in that it entails a transcendence of individuality and in that it veils the disturbing implications of marginal situations. But the religious *nomos* accomplishes this general task in a more direct and ordinarily more explicit fashion. It is not important to go into the diversity of ways in which the task is accomplished in Berger's presentation. What is important is to note that the theodicies appear as vehicles of knowledge. They provide " certainty that phenomena are real and that they possess certain characteristics." [7] People who think in terms of them " know " how the world is laid out and why. Through the theodicy, they can separate the real from the unreal, they can judge the qualities of people and things, they can even relate themselves and everything else to a reality beyond experience. They can say, " We know," in a manner not possible without the theodicy.[8]

Religion and its associated theodicies had been much at issue in *The Noise of Solemn Assemblies* and in *The Precarious Vision,* and they were judged rather negatively in both books. Berger was at pains to show how they disguise the real power of people in social situations and the genuine responsibility of people in these situations.[9] He wishes generally to avoid a moralizing posture in *The Sacred Canopy,* but he does pursue an analysis of religion as an alienating force in the work. By *alienation,* he means the whole process by which an *opus*

[7] See *The Social Construction of Reality,* p. 1, for this definition of *knowledge.*

[8] See *The Sacred Canopy,* chapter 3, on the function of theodicies.

[9] See *The Noise of Solemn Assemblies: Christian Commitment and the Religious Establishment in America* (Garden City, 1961), pp. 51-57, 72-73, 90, and *The Precarious Vision: A Sociologist Looks at Social Fictions and the Christian Faith* (Garden City, 1961), pp. 104-107.

proprium of human beings comes to seem an *opus alienum*, that is, by which their own creation appears before them as a reality totally independent of them and commanding their attention and respect. Religion tends to alienate on two levels: on the first, it takes the symbolic universe formed from the imagination of people and under the influence of their hopes and fears and treats it as fully other than human; on the second, it sanctifies some or all of the institutions and roles of society and gives them the semblance of autonomy from the on-going activity of the members. The most striking instances of such reification and false consciousness come, here and in the other books, in the areas of power and sexual relationships. In both areas, Berger takes religion as having *tended* his-torically to reinforce a consciousness of particular forms of these relationships as no less inevitable than the patterns of nature. To the extent that it does make for such a conscious-ness, it is a source of delusion.[10]

It would seem that Berger's talk about alienation and his suggestion of delusory influence violates his intention to keep brackets around the question of truth in his sociology of knowl-edge. In any event, he does not want to pass a negative judg-ment pure and simple concerning the ontological value of the " sacred canopies " which protect the earthly *nomos* in which and according to which people live.[11] Indeed, when he removes the brackets in an appendix to *The Sacred Canopy* and steps out of his role as a sociologist, he suggests a quite different con-clusion. I shall be returning to his removal of the brackets in section III. Even within the text of the book, he makes the point that some religious movements have had the impact not of blinding people to the human origin of the social order, but of revealing it. Thus, he notes the de-sacralizing significance of some of the Upanishads and of parts of the Judeo-Christian scriptures. The latter are of the greatest importance here.

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[10] See *The Sacred Canopy*, chapter 4, on alienation. In *The Noise of Solemn Assemblies*, pp. 51-57, Berger speaks of the delusion as ideological insofar as it protects vested interests in society.

[11] See *The Sacred Canopy*, pp. 100-101, on the issue of ontological value.

True, in *The Noise of Solemn Assemblies*, he had emphasized precisely the place of the Christian churches—above all, of the main Protestant churches of the United States—in fostering "bad faith" with respect to the encompassing society; and nothing in his subsequent work would indicate a retreat from this analysis.[12] What interests him in the second half of *The Sacred Canopy*, however, is the influence of Christianity in stripping the sacred aura from things and people. He acknowledges many forces as contributing to the de-sacralization which has marked modern society, but he gives a certain primacy to the religious ones. In particular, the accent upon the transcendence of God and upon historical events and personal responsibility has made for what Max Weber called a "disenchantment of the world." It is a phenomenon which Berger takes to be central to contemporary Western civilization and perhaps to civilization *überhaupt* to the extent that the former has affected it.[13]

The disenchantment of the world is a step towards seeing aright insofar as it may help people to perceive the worldly as worldly and the constructed as constructed, but it also has the consequence of rendering implausible the very religious worldviews which contributed to the disenchantment. All perspectives, all belief-systems require social structures which support them, which make them plausible. To the extent that it is a belief-system, a religion requires a plausibility structure, that is, a complex of relationships, activities, symbols which maintain a sense of objective and subjective reality for the system. Berger even makes up his own version of the old maxim "extra ecclesiam nulla salus": "no plausibility without the appropriate plausibility structure."[14] Plausibility will be highest where

[12] See *The Noise of Solemn Assemblies*, chapter 2, on the American situation. Berger has taken the same direction in articles such as "Religious Establishment and Theological Education," *Theology Today*, July 1962, pp. 178-191, and "The Child, the Family and the 'Religious Revival' in Suburbia," *Journal for the Scientific Study of Religion*, Fall, 1962, pp. 85-93.

[13] See *The Sacred Canopy*, chapter 5.

[14] See *ibid.*, pp. 45-47. See also *A Rumor of Angels: Modern Society and the Rediscovery of the Supernatural* (Garden City 1970), pp. 37-38.

society and religion are perfectly interwined, where the sacred is part of the " taken-for-granted " realm. What has happened in modern secularized society is that the religious legitimation of the earthly order has become increasingly implausible to people at large and even for those who would adopt the legitimation. Judaism and Christianity provided a species of justification for secularity through their disenchantment of people and things, but in the process they diminished the possibility of their drawing in turn support from the on-going fashion of dealing with either people or things. In the terms which Berger comes to adopt in *A Rumor of Angels,* they helped to create a sensate culture within which it will be hard to believe in any supernatural reality, in any reality " of ultimate significance for man, which transcends the reality within which our everyday experience unfolds." [15]

Another feature of the contemporary situation which has a similar effect is pluralism. It is a feature distinct from secularism (and the sensate, technological orientation which marks it) and even separable from it although the two are intimately connected at the present juncture.[16] Pluralism, the co-presence of alternate life-styles and belief-systems, acts like general secularization to deprive the individual of the " certainty that phenomena are real and that they possess certain characteristics." How does he maintain his certainties when others all about him are prospering with radically different understandings? The difficulty is especially acute for people who must appeal to realms not at all evident from within a sensate culture. Faced with the need to compete and with its condition as a sub-society in a secular context, the religious group encounters the necessity of forming its own independent plausibility structures and legitimating arguments. Berger, for his part, interprets the most significant developments within the Western religious

[15] *A Rumor of Angels,* p. 2. On the preceding page, Berger (following Herman Kahn and Anthony Wiener) unpacks Pitirim Sorokin's term *sensate* with the delineation " empirical, this-worldly, secular, humanistic, pragmatic, utilitarian, contractual, epicurean or hedonistic."

[16] See *The Sacred Canopy,* pp. 135-140, on the connections.

communities (once again, focussing principally on Protestant-
ism but to some extent also on Catholicism and Judaism) as
diverse and fluctuating responses to this necessity. Whatever
the success of the responses, the consequence is that religion in
either shape tends to take on a peculiarly subjective and individ-
ual direction. One puts himself into this or that faith-perspective
if he wishes to; and he justifies his moves not by reference to the
taken-for-granted reality "known" by every sane man in
his society, but by reference to domains of quite limited ac-
cessibility. As this happens, religion ceases to accomplish its
classical task of "constructing a common world within which
all of social life receives ultimate meaning binding on every-
body." [17] And, since pluralism affects the secular alternatives
in modern society as well, it is not surprising that people in
such a situation come to sense the precariousness of even the
more limited *nomoi* of their lives and that they are peculiarly
exposed to the dangers of *anomie*.[18] A strange circle has been
completed.

III

Berger's aim throughout *The Sacred Canopy* is to stay within
the confines of sociology as an empirical science and to prescind
rigidly from "any questions of the ultimate truth or illusion
of religious propositions about the world." [19] He looks sym-
pathetically both at the hesitations of people today and at the
confidences of those in more traditional societies, and he at-
tempts to provide a theoretical framework for understanding
the many social constructions of reality achieved in either
setting. But the theoretical framework involves neutrality as
to the value of the constructions, and Berger reasserts it at
several junctures in *The Sacred Canopy*. Nonetheless, fearing
that his methodological position might be taken for a sub-

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[17] *Ibid.*, pp. 133-134.
[18] Both *The Social Construction of Reality* and *The Homeless Mind: Moderniza-
tion and Consciousness* (New York, 1973) take up the problems discussed in the
last few paragraphs in some abstraction from considerations of religion.
[19] *The Sacred Canopy*, p. v,

stantive one, he devotes several pages of an appendix to the " truth-problems " posed by his sociological analysis of religious belief and to the legitimate and illegitimate strategies for handling the problems. The *magnae quaestiones* which sociological theory poses for the theologian (that is, for the person who would explore the issue of truth in the area of religion) are as follows:

How is one to distinguish between those infra-structures that give birth to truth from / sic / those that give birth to error? And if all religious plausibility is susceptible to ' social engineering ' how can one be sure that those religious propositions (or, for that matter, ' religious experiences ') that are plausible to oneself are not just that—products of social engineering and nothing else? [20]

Berger makes some brief suggestions concerning ways of handling these great questions in the appendix, and then in *A Rumor of Angels* he expands on the suggestions. In each case, he attends to the possible methods of evaluating those truth-claims over against which the sociologist must maintain neutrality.[21] Thus, he steps out of his role as pure sociologist and removes the brackets which had kept him from the concerns of the epistemologist or the theologian. It is to his moves on the other side of the sociology of knowledge that I would now turn.

One part of Berger's answer to the *magnae quaestiones* in both the appendix to *The Sacred Canopy* and in *A Rumor of Angels* is a negative one, and the negation is a conscious and significant switch from the position adopted in the early 1960's. The objective in the books which compose what I labelled *the first cluster* is to take up the problems of truth raised for contemporary Christians by the investigations of the sociologist. *The Noise of Solemn Assemblies* argues that the Christian churches (especially the dominant Protestant churches) in the United States function as a religious establishment which sustains the values of success, activism and adjustment reigning

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[20] *Ibid.*, p. 184.
[21] See *A Rumor of Angels*, pp. ix-xi, 96-97, on the step beyond neutrality.

in American society. Berger tries to marshall the empirical data which would support the argument, and he gives the phenomenon an interpretation which anticipates much to be found later in *The Sacred Canopy*. *The Precarious Vision* takes basically the same direction although it does not center on the Christian churches or on the United States. It concerns, above all, the sense of vertigo which comes from the recognition of the contingency of the social order and the place of religion in hiding this contingency. In both books, the author is interested in " bad faith " fostered by religion in the way people think about their social situations; but he presents Christian faith as something radically other than religion. In obscuring the social reality and in bolstering the status quo, the churches abandon the gospel, the heart of which is the notion of divine transcendence and the call to conversion. The truth of the Christian faith is that God is not a symbol in the service of any institutional order, secular or religious. When a man is possessed of that truth, he is prepared to face the disturbing earthly truths of the sociologist. By definition, then, genuine Christian faith will not be at issue when this or that Christian or group of Christians uses the languages of faith as an ideological cover.[22]

One of the features which distinguishes *The Precarious Vision* from *The Noise of Solemn Assemblies* is that in the former Berger reflects on the problem of providing intellectual justification for taking one's stand as a Christian. How can Berger or anyone else adopt or maintain the position of faith just described without the suspicion that he deceives himself about the import of his commitment and about his own motivations? The question is one which arises naturally out of the sociology of knowledge posed by the author in both of the clusters. In *The Precarious Vision,* he rejects a few of the answers commonly essayed by Christians: he will not appeal to natural theology, or to the human need for faith, or to mystical experience,

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[22] The discussion of Christian faith comes in chapter 4 of *The Noise of Solemn Assemblies* and in chapter 9 of *The Precarious Vision.*

or to the inaccessibility of faith to rational critique. Rather his answer takes the form of an appeal to an encounter with Jesus and an explanation of the limits of argument. The solution involves no claim of privileged position over against other people with respect either to certitude or understanding. What it does involve is an insistence that faith is an intelligent decision and that it has an objective point of reference in the figure of Jesus.

There can be no basis for Christian faith except in the encounter with the figure of Jesus Christ as it becomes manifest in the testimony of the Bible and the living proclamation in the Church. Faith is the decision to stake one's existence on this figure. This is not a negative choice, because of any number of alternatives, because one cannot face finitude, meaninglessness, guilt or death. It is a free and positive choice, not away from the realities of the human condition but toward this figure in whom the human condition is transfigured. To be human means to live with inconclusive information on the ultimate meaning of things. To have faith in Christ means to say that, if there is any meaning at all, it is here that one must find it. Perhaps, in the dialogue between faith and unbelief, one can go one small step further. One can add that in making the decision of Christian faith one chooses to believe that the ultimate truth about man is joy rather than courage.[23]

The recourse to faith may indeed function as an alibi and an ideology, but it may also be an intelligent step beyond alibi and ideology.

By the time of *The Sacred Canopy*, Berger has largely abandoned the solutions of the first cluster. He no longer grants Christian faith an immunity to the threats of social relativity and human self-deception which affect the religious projects of people. From the empirical standpoint, it qualifies as religion with all that the qualifying entails; and Berger claims for himself no *a priori* way of differentiating between them. Whatever positive answer he would give on behalf of Christian faith must apply to it as religion and not as something fully

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[23] *The Precarious Vision*, pp. 189-190. Berger's dependence on neo-orthodox Protestant theology in the books of the first cluster is as conscious as it is obvious,

unique.[24] The positive side of the answer does, in fact, concern
the religious enterprise in general. It is Berger's position that
" to say that religion is a human projection does not logically
preclude the possibility that the projected meanings may not
have an ultimate status independent of man." [25] One might say
that people project ultimate meanings into reality precisely be-
cause this reality is ultimately meaningful and because there
is a continuity between the two orders of meaning. The process
requires a familiar standing of Feuerbach and Marx on their
heads. For clarification and support, Berger refers to the realm
of mathematics in which socially contingent structures turn out
to correspond with something " out there." [26] He notes that
the projections of ultimate meaning by human beings are many
and often contradictory, but he does not try to negotiate his
way among them. In any event, if the theologian would make
the negotiation and at the same time be serious about sociology,
he must do the negotiating through " a step-by-step re-evalu-
ation of the traditional affirmations in terms of his own cogni-
tive criteria (which need not be those of a putative ' modern
consciousness ') ." [27] Such a re-evaluation may finally uncover
genuine " signals of transcendence " amidst the many and con-
tradictory projections of religious people.

The second appendix to *The Sacred Canopy* does not con-
front the problems of sociologically motivated skepticism and
relativism formally, and this omission is surprising since it is
clear that the " vertigo of relativity " haunts Berger through-
out the book. The same surprising omission had marked the
earlier books in which he removed the brackets from around
the question of truth. He does, however, deal with the problems
ex professo under the rubric *relativity* in *A Rumor of Angels*.
The basic approach is remarkably simple. As in *The Sacred
Canopy*, he rejects his previous distinction between faith and
religion as a way out of the difficulties for the Christian. He

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[24] See *The Sacred Canopy*, pp. 185-186.
[25] *Ibid.*, p. 181.
[26] *Ibid.*, pp. 181-182.
[27] *Ibid.*, pp. 186-187.

likewise puts aside the essentialist solutions of Max Scheler as " throwing a sop to the dragon of relativity." [28] The relativizing analyses of the sociologist as of the historian and the psychologist must be given their due; but, once the acknowledgement has been made, one can begin again with the issues of truth and falsity. The new beginning will, though, have none of the innocence which marked the questions and answers on the other side of the " fiery brook " of the sociology of knowledge.

Any such method (for handling the problem of relativity) will include a willingness to see the relativity business through to the end. This means giving up any *a priori* immunity claims. . . . It seems, however, that when the operation is completed a rather strange thing happens. When everything has been subsumed under the relativizing categories in question . . . the question of truth reasserts itself in almost pristine simplicity. Once we know that all human affirmations are subject to scientifically graspable sociohistorical processes, *which affirmations are true and false?* We cannot avoid the question any more than we can return to the innocence of pre-relativizing asking. This loss of innocence, however, makes for the difference between asking the question before and after we have passed through the " fiery brook ".[29]

The knot of relativity has been cut. With one blow, " the relativizers are relativized, the debunkers are debunked—indeed relativization is somehow liquidated." [30] In fact, with this one blow, Berger has not only relativized the relativizers to his own satisfaction, but he has also undercut the challenge to belief in the supernatural from the spirit of the age. This spirit and the beliefs which accompany it are no more absolute than were the spirit and beliefs of the Middle Ages. When one relativizes the relativizers, he can get through skepticism and relativism to the question of truth; and, when he relativizes the spirit of the age, he can remove it from its pedestal as the source of criteria for truth and falsity.[31]

[28] *A Rumor of Angels,* pp. 39-40.
[29] *Ibid.,* p. 40.
[30] *Ibid.,* p. 42.
[31] Berger does not claim to have escaped social contingency through the argu-

With the relativizers relativized, Berger attempts a modern *quinque viae*. The starting-point for each of the five is a way in which commonplace human activities seem to involve a projection towards a "reality that is superhuman and supernatural" and allow for an argument by which one might go from the projection to an assertion about a reality corresponding to it beyond the human and natural. He takes his method to be empirical in that it begins with material accessible without any leap of faith or mystical experience and anthropological in that it focusses on the gestures of men rather than on aspects of nature.[32] The five gestures considered in *A Rumor of Angels* are ordering, playing, hoping, demanding damnation, and seeing humor. The reasoning in each case is basically the same, and so a review of the argument from ordering should be sufficient for the present discussion. It is not an argument from order in the universe along classical lines, but rather an argument from the ordering activity of human beings, indeed from the sort of ordering activity which Berger has put at the heart of social existence. One might call it an argument from the sociology of knowledge. Every historical society is "a protective structure of meaning erected in the face of chaos," and this erection of structure involves a confidence which is linked with a basic trust in reality.[33] Berger illustrates the point by referring not to the large-scale social operations which have often interested him, but to the relationship of parents to their small children. The main example is the mother reassuring her frightened child that "everything is all right, everything is in order"; and, like Erik Erikson, he sees this comforting as essential to the child-rearing process. Through their gesture of reassurance, the parents become guarantors not just of the order of the family, but of the universe at large. It is, however, a gesture which they make in the face of their realization that

ment. The answer must itself fit into a social context which bears upon its intelligibility and plausibility. Indeed, the pluralistic situation guarantees that alternate belief-systems may have supporting structures.

[32] *Ibid.*, pp. 49-53, 57.

[33] *Ibid.*, pp. 53-54.

the child will learn that everything is not all right in the na-
tural, this-worldly domain. If this natural domain were the
only one, the trust they foster would be an illusory one; and
" the nightmare of chaos, not the transitory safety of order,
would be the final reality of the human situation." Stoic resig-
nation would be the only recourse. Yet human beings do order
and parents do reassure; and these gestures qualify, for Berger,
as pointers beyond the empirical, natural realm of precarious
nomoi. They are pointers to the supernatural, and religion is
the formal expression of confidence in the pointing.[84]

The other four *viae* function in a generally similar fashion.
Human beings play; and, to the extent that they actualize the
essentially joyful intention of play, the time structure of their
playful universe " takes on a very specific quality—namely, it
becomes eternity." [85] Berger gives no definition of time or of
eternity, but he is obviously after an image of men setting up
enclaves from the pain and suffering, war and death which
are apparently inseparable from their present context, their
memory of the past, and their expectation of the future.
Playing, then, constitutes " a signal of transcendence, because
its intrinsic intention points beyond itself and man's ' nature '
to a ' supernatural ' justification." [86] Likewise, people hope in
the face of inevitable death; they demand complete punishment
for certain horrible crimes despite the incompleteness of all
earthly punishment; and they laugh at the discrepancy between
the reach of the human spirit and the actual circumstances of
human existence. Each gesture is a relativizing gesture in that
it involves not according to the everyday world of serious
thought any absolute claim on human attention or to human re-
spect. They are thus further signals of transcendence to which
an " inductive faith " in the supernatural is a reasonable re-
sponse, albeit not the only reasonable response.[87]

[84] *Ibid.*, pp. 56-57. See also *The Precarious Vision*, pp. 122 and 151, for a fore-
shadowing of the argument.
[85] *Ibid.*, p. 58.
[86] *Ibid.*, p. 60.
[87] See *ibid.*, pp. 57, 60, for Berger's delineation of " inductive faith " as a faith

These five gestures are, for Berger, but a partial list of the signals of transcendence to be found in the common, cross-cultural behavior of people. He views them as pointing to the supernatural in the broadest sense of " an other reality, and one of ultimate significance for man, which transcends the reality within which our everyday experience unfolds." The supernatural in this sense is not necessarily to be equated with the God of Judaism or of Christianity, nor is it tied in with any particular tradition. Just as the reasonable affirmation of the supernatural requires an honest look at experience and an inductive faith, so too does the choice of any set of imaginative or conceptual terms for thinking and talking about this supernatural. The process must go beyond the context of the natural, but it must begin with it.

History provides us with the record of man's experience with himself and with reality. This record contains these experiences in a variety of forms, that I have called signals of transcendence. The theological enterprise will have to be, first of all, a rigorously empirical analysis of these experiences, in terms of both an historical anthropology and a history of religion, and, if my suggestion is followed, the former will have logical priority over the latter. The theological enterprise will go beyond the empirical frame or reference at the point where it begins to speak of discoveries and to explicate what is deemed to have been discovered—that is, at the point where the transcendent intentions in human experience are treated as *realities* rather than as alleged realities.[38]

The theological move to talk about the supernatural requires a switch in frame of reference, and the main pre-occupation towards the end of *A Rumor of Angels* is with a method to be used in making the switch.

Berger puts forward a set of essential questions to be posed in the consideration of any religious tradition, questions which relate to his desire to keep theological talk in contact with experience.

which begins with the facts of human experience. It is a fallible and insecure faith which belongs to the order of religion and does not need the interpretations of the books in the first cluster.

[38] *Ibid.,* p. 83.

What is being said here? What is the human experience out of which these statements come? And then: *To what extent, and in what way, may we see here genuine discoveries of transcendent truth?* [39]

He insists on a readiness to face not just the religious alternatives in interpreting the signals of the supernatural, but also the whole variety of fashions of dealing with the world in art, history, science and so on. But apart from these broad guidelines, he has no advice on the negotiation of the paths between the different enterprises just mentioned nor on the appraisal of the sundry claims made about the supernatural. The most he does is to outline his personal reconsideration of the Christian tradition, a reconsideration which is " heretical " in its selectivity over against the tradition. He upholds the " transcendence of God " and the " redemptive presence of Christ " as notions compatible with the signals in human experience and compatible with all the other truth-claims he would make or accept. What he understands as no longer feasible for the person who has taken history and sociology seriously is the belief that only Christians or Jews can have a genuine faith in the supernatural or that only through an historical personage such as Jesus is the supernatural manifest or that only in or through a particular community is it to be found.[40] Beyond that rudimentary sketch of Berger's own direction, *A Rumor of Angels* does not give the reader much help in " confronting the traditions "; and nothing that has come from him since its publication has dealt formally and at length with these issues.

IV

Peter Berger's literary efforts have been so variegated that a critique could center on many different areas of his work in abstraction from others. One could, for instance, restrict his attention to the sociology of knowledge developed in *The Social Construction of Reality* or to its application in *The Sacred Canopy*, and it will undoubtedly turn out that both the general theory and its application are in need of correction

[39] *Ibid.,* p. 84.   [40] See *ibid.,* pp. 92-93.

at least in significant detail.[41] Berger himself has, as I have noted several times, been willing to qualify or even to retreat from positions taken at different stages of his career. Of late, indeed, he seems to be attending more to the empirical element which sometimes proves lacking in his sociology of knowledge.[42] In any event, I should not like to tangle with Berger the sociologist of knowledge properly so-called, but rather with Berger the man concerned with truth-questions raised by his sociology. My position is that of the philosopher duly impressed with the sociological theory sketched in section II of this essay and perplexed by the epistemological and religious difficulties seemingly raised by it. I should like, then, to appraise the effort presented in section III to get at the truth in religious matters after having taken the sociology of knowledge seriously.

What should be clear from all that has preceded is that the problem of truth in general and of religious truth in particular remains with Berger from *The Noise of Solemn Assemblies* through *A Rumor of Angels*. Even the effort to prescind from questions of truth in *The Social Construction of Reality* and *The Sacred Canopy* reveals a pre-occupation with the problem since one must advert to the questions in order to place them in brackets. Strangely enough, Berger provides no definition of truth in any of his writings; and one must garner a potential truth-theory from the way in which he treats of particular matters. A study of those writings reveals plainly that the issue of truth is, for him, always an affair of judging things to be as they really are, of penetrating beyond the fictions, of reaching the hard element of reality.[43] It is not an affair of bringing be-

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[41] Andrew Greeley has, in *Unsecular Man: The Persistence of Religion*, New York, 1972, criticized Berger for neglecting some of the evidence for the persistence of religion in the present epoch. In *The Science of Religion and the Sociology of Knowledge: Some Methodological Questions* (Princeton, 1973). Ninian Smart expresses some important reservations about the theoretical framework of *The Sacred Canopy*. It is my own view that Smart misunderstands Berger's overall intention.

[42] See Berger's remarks in this regard at the beginning of " Some Second Thoughts on Substantive versus Functional Definitions of Religion."

[43] See *The Precarious Vision*, p. 169, and *A Rumor of Angels*, pp. 94-97, for a direction which appears in many of Berger's writings.

liefs into line with other beliefs or of testing their fruitfulness in life. Thus, his latent truth-theory falls roughly into the group traditionally classified as " correspondence theories of truth." A belief or assertion is, according to such a theory, true if it corresponds to, squares with, is appropriate to the state of affairs concerned in the belief or assertion. The claim in *The Noise of Solemn Assemblies* that the principal Protestant churches of the United States act to adjust people to American society qualifies as true if, as a matter of fact, these churches do act in this manner. Berger's understanding of truth in the area of religion follows the same pattern. The belief or assertion " that there is another reality, and one of ultimate significance for man, which transcends the reality within which our everyday experience unfolds," qualifies as true if there is such a reality. There is a common concern to discover " how it is " in the two inquiries even if the Protestant churches and the other reality belong to radically different orders of being. And behind this common concern lies the conviction that the difference is not incompatible with the unity of truth and being.[44]

The first problem which arises concerning Berger's handling of questions about religious truth relates to the possibility of raising any question of truth in the form just depicted after facing up to the indications of the sociology of knowledge. Other thinkers have, thus, taken the sociology of knowledge pursued after the fashion of *The Social Construction of Reality* as providing grounds for abandoning the notion of truth as correspondence. Karl Mannheim provides a good example of the reasoning involved. The common denominator of the correspondence theories of truth, as Mannheim envisages them in his writings, is that they call for a juxtaposition of beliefs and facts without any question of historical and social setting. One pursues " absolute " truth in trying to determine this correspondence of beliefs and facts apart from issues of date and place. The implication which Mannheim draws from his efforts

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[44] See *The Noise of Solemn Assemblies*, pp. 15-16, on the unity of truth. The whole argument of *A Rumor of Angels* requires a similar assertion of unity.

as a sociologist is that such a juxtaposition and hence such absolute truth are impossible. Propositions mean what they mean through their historical and social settings, and reality is defined variously in dependence on the shift in settings. The truth might still be sought, but it will be a perspectival and relational truth. Although Mannheim is not altogether clear about the full import of his " perspectivism " and " relationism," his many attempts at clarifying this revised concept of truth tend to support the interpretation of it along the lines of a coherence theory.[45] And he has not been alone in calling for revisions. The philosopher of religion Leslie Dewart, for example, argues against what he calls the semantic theory of language and the correspondence theory of truth on the basis of an analysis similar to that of the sociologists of knowledge. His alternative involves a redefinition of truth in terms of fidelity to oneself rather than of fidelity to any " world out there." Another philosopher of religion, Eugene Fontinell, reads *The Social Construction of Reality* as warranting a pragmatic theory of truth. Finally, while they do not advert directly to the work of the sociologists, it appears clear that considerations such as those of Berger and Luckmann play some role in the underpinning of the coherence theories of truth offered by such diverse thinkers as R. G. Collingwood, Otto von Neurath and Rudolf Carnap.[46]

Berger would not want to stake his reputation upon his somewhat brief excursions into formal epistemology, whereas Mannheim saw his revisions in truth-theory as important contributions to the solution of long-standing epistemological difficulties. Nonetheless, it is Berger rather than Mannheim who stands

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[45] See Mannheim, *Essays in the Sociology of Knowledge,* London, 1952, pp. 102, 118, 120, and *Ideology and Utopia* (New York, 1954), pp. 70, 81-82, 253-254. Paul Keschkemeti in the introduction to the *Essays* and Werner Stark in *The Sociology of Knowledge: An Essay in Aid of a Deeper Understanding of the History of Ideas* (London, 1963), support a similar interpretation of Mannheim.

[46] See Dewart, *Religion, Language and Truth* (New York 1970), pp. 32-33; Fontinell, *Toward a Reconstruction of Religion* (Garden City 1970), p. 93; Collingwood, *An Essay on Metaphysics* (Oxford, 1940), chapters V-VII. On von Neurath and Carnap, see Carl Hempel, " The Logical Positivists' Theory of Truth," *Analysis,* January 1933.

on the side of epistemological wisdom in his avoidance of any attempt to redefine truth away from a correspondence notion. The trouble with the redefinitions is that they rest on a misconception of the import of talking about truth as a correspondence of beliefs (statements . . .) to reality (facts . . .). Such an account simply requires that people be able to think and talk about objects of discourse and that they be able to evaluate their thinking and talking as not only consistent or fruitful, but also as faithful to the order of objects. These objects will be given within a human and therefore a linguistic and social framework, and different sorts of objects will fit into the framework with different species of social dependence and variability. The range becomes evident when one ponders the status of concepts, words, colors, relations, trees, persons and so on. But, in the end, people must be able to appraise their thinking and talking about such objects if any discipline including the sociology of knowledge is to get off the ground. A correspondence theory as such demands no more although it may allow for interesting and conflicting ways of accounting for the possibility of the appraisal. What the work of sociologists like Berger does is to put wrinkles into the accounts, and yet any truth-theory which develops as a result of that work must have the minimal elements of a correspondence theory.

It has been, of course, the twin spectres of hopeless skepticism and debilitating relativism which have troubled so many thinkers both before and since Scheler coined the term *Wissenssoziologie,* and it has been to dissipate the spectres that Mannheim and his fellows have felt compelled to essay a redefinition of the notion of truth. Berger's strategies in confronting the " vertigo of relativity " have been less impressive than his poignant pages depicting its advent in human consciousness. His general assumptions are that social conditioning is not total (notions " deriving directly and spontaneously from our own sense experience " seem to escape it) and that one can arrive at an apprehension of " the hard element of reality " (this would seem to be the import of some of the talk about

ecstasy in the earlier books) .[47] But it is only with the relativization of the relativizers in *A Rumor of Angels* that he proffers something like an argument, and then the blow that cuts through the knots of skepticism and relativism is so swift as to appear a sleight-of-hand maneuver. In any event, however much the relativization of the relativizers needs elaboration, Berger is on the right track. Surely, a universal skepticism motivated by sociology is as incoherent as any other species of universal skepticism. Doubt only works in the context of undoubted, although not necessarily indubitable beliefs; and, when it becomes complete, skepticism itself is undercut.[48] Sociologically motivated relativism does not, it must be admitted, fall so easily. Groups of people do seem to work with differing conceptual schemes, and they do seem to create varying social realities. One may even admit the extremes of variety suggested by Benjamin Whorf and Marcel Granet provided that he does not act as an interpreter while denying the possibility of interpretation.[49] What is evident is that the real issue here is one of communication rather than of truth: the beliefs (statements . . .) will be about different objects (facts . . .) and not in genuine opposition to each other. The chief difficulty comes when conflicting standards of judgment make for opposing judgments about the same objects and when no further criterion promises to settle the dispute. Here the conflict is genuine, and it may be beyond direct settlement. Yet, by its nature, this sort of conflict can occur only within a shared universe of discourse and as part of a common concern about the truth and indeed a common confidence in getting at it. In highlighting the social connections which extend plausibility to the standards, the sociology of knowledge may raise a hesitation

[47] See *A Rumor of Angels,* p. 34, about these elementary notions. Berger quickly softens the admission with the remark that " even these can be integrated into meaningful views of reality only by virtue of social processes."

[48] Note Ludwig Wittgenstein's remark that " a doubt without end is not even a doubt " in *On Certainty* (New York, 1972), p. 625.

[49] See Whorf, *Language, Thought and Reality* (New York 1956), and Granet, *La Pensée Chinoise,* (Paris, 1950). Berger makes a sympathetic reference to Granet in *Invitation to Sociology: A Humanistic Perspective* (Garden City, 1963), p. 115.

as to the sort of disagreement involved. Nevertheless, it does not, of itself, lead one away from the task of appraising " what is believed or said " in terms of " what is."

The chief problem for the search after religious truth comes not from any general epistemological consequences of the sociology of knowledge, but instead at the point when epistemological worries have been more or less neutralized. And Berger's principal weakness at this point is that he does not elaborate a method adequate to support the serious intellectual inquiry to which he aspires upon the removal of the brackets around questions of truth in the area of religion. In the concluding paragraphs of the second appendix to *The Sacred Canopy,* he tells his readers that the theologian is left " with the necessity for a step-by-step re-evaluation of the traditional affirmations in terms of his own cognitive criteria (which need not necessarily be those of a putative ' modern consciousness ') ." [50] Surely, it is correct that one must enter the argument bravely, although modestly and cautiously with criteria which will not be shared by everyone else and which one may himself someday reject. Hopeless skepticism is not far off if these criteria are not allowed. But Berger himself has remarkably little to say about the criteria according to which he determines the truth or falsity of the religious beliefs at issue in his writings. Why should one take up the inductive faith of *A Rumor of Angels* that " there is an other reality, and one of ultimate significance for man, which transcends the reality within which our everyday experience unfolds " ? It will not do simply to say that people engage in activities which suppose this other reality. Nor will it do to remark that a religious interpretation of the prototypical gestures makes for a more consoling passage through this world. The truth is, as Berger notes in both *The Precarious Vision* and in *A Rumor of Angels,* not necessarily consoling.[51] What is most lacking in his return to the question of truth in religious matters is an account of the criteria by which one might pass judgment on the issue. In the absence

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[50] *The Sacred Canopy,* p. 184.
[51] See *The Precarious Vision,* p. 158, and *A Rumor of Angels,* p. 25.

of such an account, one is open to the limited and often quite reasonable skepticism fostered by a sociology of knowledge which dwells on the ways in which people have used religion to deceive themselves and others. The only satisfactory antidote to this narrower skepticism in the area of religious belief or of any area akin to it is a direct apeal to the reasons which justify the belief in cognitive terms.[52]

Others who have "started with man" have not been so chary of providing criteria for passing from the fundamental gestures of human beings to truth-claims about the transcendent. Authors like Joseph Maréchal, Emerich Coreth and J. B. Lotz (sometimes lumped together under the label *transcendental Thomists*) use a special understanding of finality to go from the analysis of judging, questioning and aspiring to the assertion that there must be an infinite reality proportionate to the ultimate intention of the acts.[53] It is not within the scope of the present article to argue that Maréchal, Coreth and Lotz have or have not been successful in the colossal task they set themselves; but, if one can enter into and accept the ontology involved in their understaking, it becomes a relatively simple matter to reconstruct the reasoning of *A Rumor of Angels* to fit in with it. Such a reconstruction would be as vulnerable as the original schemes of Maréchal, Coreth and Lotz to possible rejection as inconsistent or unconvincing, but it would have the merit of standing as an inquiry about the truth with stated criteria for the positions taken. Vulnerability is one of the marks of dignity in such a discussion. Berger could also have followed the path of Friedrich von Hügel in arguing that apprehending this world as limited must always depend upon

[52] Theodor Geiger in *Ideologie und Wahrheit: Eine Soziologische Kritik des Denkens,* Stuttgart, 1958, distinguishes *cognitive* considerations which have properly to do with knowledge-claims from existential considerations which have to do with power, consolation and so forth. Berger wishes to place his discussion on the first level but tends to slip towards the second.

[53] See Maréchal, *Le Point de Départ de la Métaphysique: Leçons sur le Développement historique et théorique du Problème de la Connaissance* (Brussels, 1949), particularly cahier 5; Coreth, *Metaphysik: Eine Methodische-Sytematische Grundlegung,* (Innsbruck, 1964); Lotz, *Metaphysica Operationis Humanae* (Rome, 1961).

an intuitive contact with a transcendent reality.[54] Or he could, with George Tyrrell, have gone from the fruitfulness of believing in this other reality for everyday life to the ontologically grounded assertion that such fruitfulness must be a sign of the other reality as something more than human projection.[55] Or finally he might have argued on a similar ontological ground that the universality of the prototypical gestures and hence of the notions latent in them must indicate the truth of the assertion " that there is an other reality. . . ."[56] In following any of these paths, a Berger would be exposing himself to refutation; but the alternative to becoming subject to attack is to cease to engage in a human discussion about the truth.

Something similar could be said about the earlier attempts to justify the beliefs and assertions of the Christian faith through an appeal to the figure of Jesus. The trouble is not, as Berger comes to think in his later books, that Jesus and his message are too bound up with the particularities of time and place to be given over-riding importance. There is no *a priori* objection to making one human being central to the well-being of the whole species or to perceiving him as the principal signal of transcendence. It does not matter that many people do not or cannot perceive him as such any more than it mattered that the blind men could not see the rocks and anticipate the avalanche in H. G. Wells's provocative story "The Country of the Blind." Sociology may sensitize one to the socially contingent and relative conditions required in order to judge Jesus to have such importance or to the hidden functions of the seemingly reasonable belief in him or about him. But the only real test for the judgments or beliefs themselves lies in an investigation of the reasons for holding to them. What that means is a return to historical and philosophical considerations resembling those which go on quite apart from the sociology of knowledge. For the success of Berger's enterprise, one needs,

[54] See Von Hügel, *Essays and Addresses on the Philosophy of Religion*, Second Series (London, 1926), p. 208.

[55] See Tyrrell *Lex Orandi* (London, 1904), pp. 57-58.

[56] Giambattista Vico pursues this direction in *Scienza Nuova* (*Opere*, Milan, 1953) paras. 332-333.

above all, a study of the biblical sources and a theory of authority as a source of justified belief.[57] The weakness of *The Noise of Solemn Assemblies* and of *The Precarious Vision* is that they do not delve into this study, not that they neglect the evidence of the sociology of knowledge.[58]

My judgment is, then, that Berger is justified in thinking that one continues to confront the old questions of truth even after passing through the fiery brook of the sociology of knowledge. No new theory of truth is called for, nor are skepticism and relativism warranted conclusions arising from the recognition of the social conditions or uses of beliefs. If Berger falls down in his inquiry about religious truth, it is not because he minimizes the large epistemological implications of his work as a sociologist, but because he fails to pursue the questions themselves earnestly enough. One indirect bearing of the work of the sociology of knowledge for the pursuit of truth is to suggest that one must be cautious in supposing truth and falsity to be at issue or in supposing truth to have been attained. But the only proper way of handling the questions themselves, indeed the only way to be duly cautious, is to handle them as straight-forwardly and as rigorously as possible. Such is the caution demanded in opposing or defending religious beliefs as well as any others, and the demand has only been intensified by the work of sociologists of knowledge like Peter Berger.

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[57] Such a theory of authority in connection with belief has been badly neglected among philosophers. One might note the interesting effort made in this regard by I. M. Bochenski in *The Logic of Religion* (New York, 1965), pp. 135-139, 141-148, 162-173.

[58] Berger talks at times as though all truth-questions in the area of religion were *theological* questions. The questions which he takes up most extensively and which I have been considering tend, in fact, to be more pre-theological (belonging to the philosophy of religion or to apologetics) in the traditional usage. Berger generally does not argue for his understanding of the import of the Christian message. Where he does " confront the traditions " argumentatively as in the last chapter of *A Rumor of Angels*, he tends to fall into the defect I have been discussing in this final section of my article. A properly theological argument requires criteria for justifying truth-claims no less than any other argument.

THE TRIADIC STRUCTURE OF RELIGIOUS
CONSCIOUSNESS IN POLANYI *

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I
N THIS PAPER I would like to explore the implications of Michael Polanyi's conception of the structure of consciousness and tacit knowing for two closely related topics in the philosophy of religion: the existential character of religious enactment in ritual and contemplation and the hermeneutical and critical issues centering around the problem of the preconditions of conversion. My concern is methodological and phenomenological; I do not intend to give a full account of what Polanyi has to say on the subject of religion. Rather, ignoring some of the more inadequate elements of his theory of religion, I would like to show how his critical distinction between focal and subsidiary awareness and his notion of a skillful act create the concept of a *tacit triad* and how this concept illuminates the operative structures of consciousness in general and religious consciousness in particular. Except by way of illustration I will make no intrusions into substantive issues of religion or theology.

I will combine expository and argumentative elements in my analysis. Although I want to give a faithful account of what Polanyi has said on our topics of discussion, I shall also attempt to draw further implications that are not contained explicitly within Polanyi's own frame of reference. What follows is divided into three parts. In the first part I sketch what I call the tacit logic of the mind by means of a determination of the notion of a tacit triad and its relation to the problematic of self-integration. In part two I apply this logic in an analysis of the triadic structure of religious consciousness as found in

ritual and contemplation, including religious aesthetic percep-
tion. In part three I concentrate on certain aspects of the prob-
lem of conversion, understood in a rather broad sense.

I. *Meanings, Wholes, and Tacit Triads*

The foundation of Polanyi's analyses of consciousness and
knowing is the distinction between focal and subsidiary aware-
ness. This distinction is derived from some rather simple con-
siderations and is found to be operative in *all* meaningful uses
of consciousness. Polanyi's point of departure is the observa-
tion that we can be aware of something in two mutually exclu-
sive ways. This fact becomes clear in any case of our awareness
of wholes. To take an instance, our perception and recognition
of a plane figure such as a line drawing of a face involves an
integration of the lines into a coherent perceptual form. While
the face—as a whole—lies at the focus of attention, we are
aware of the lines, angles, and their directions in their bearing
on the focus. We do not attend directly to the particular
lines and their modifications but *rely* on them or use them as
instrumental clues for solving what can be defined as a per-
ceptual puzzle, that is, a set of particulars that we are trying
to construe. Polanyi thinks we must consider the face as an
emergent perceptual form which integrates the various features
that make up the physiognomy as a whole. Technically, we
are *focally* aware of the face but *subsidiarily* (i. e., instrumental-
ly) aware of the features.[1]

The subsidiary elements, the particulars of the perceptual
form, function as vectors or pointers within the field of con-
sciousness. We are conscious *from* them *to* something else.
This from-to structure characterizes all meaningful use of con-
sciousness according to Polanyi.

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[1] A full exposition of Polanyi's model of mind and consciousness can be found in
my three papers: " Polanyi's Model of Mental Acts," *The New Scholasticism*, 47
(1973), pp. 147-78, " The Logic of Consciousness and the Mind-Body Problem
in Polanyi," *International Philosophical Quarterly*, 13 (1973), pp. 81-98, and
" Meaning, Thought and Language in Polanyi's Epistemology," *Philosophy Today*,
18 (1974), pp. 47-67.

All thought contains components of which we are subsidiarily aware in the focal content of our thinking, and all thought dwells in its subsidiaries, as if they were parts of our body. Hence thinking is not only necessarily intentional, as Brentano has taught: it is also necessarily fraught with the roots that it embodies. It has a *from-to* structure.[2]

This from-to structure constitutes what Polanyi calls the tacit relation or, in another place, the *tacit triad.*[3] Specifically, "knowing is a process in two stages, the subsidiary and the focal, and these two can be defined only within the tacit act which relies on the first for attending to the second."[4] What is this tacit act that unifies or generates the tacit triad? And what are the different subsidiary particulars and focal unities held together by this act?

Taking his essential clue from some points in Gestalt-theory, Polanyi wants to establish precisely how and in what ways the field of consciousness intends, and constitutes, sets of organized wholes. These wholes are constructed by the constitutive activity of our consciousness, an activity that takes a number of cognate but specifically different forms. This constitutive activity is the tacit act and it operates whenever conscious activity gives rise to wholes. Further, for each kind of whole there will be corresponding focal and subsidiary components, the focal component *emerging* out of an integration or organization of the subsidiary (or subsidiarily intended) particulars. To fully appreciate this notion it is necessary to differentiate the kinds of wholes and the patterns of consciousness wherein they are constituted. For the sake of theoretical and heuristic clarity for what follows, I would like to specify three kinds of wholes that will have a direct bearing on the analysis of religious consciousness. All these wholes instantiate the notion of a

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[2] *The Tacit Dimension* (Garden City: Doubleday Anchor, 1967), p. x.

[3] " Logic and Psychology," *American Psychologist,* 23 (1968), pp. 30 ff.

[4] " Tacit Knowing: Its Bearing on Some Problems of Philosophy," in Polanyi's *Knowing and Being,* ed. Marjorie Grene (Chicago: University of Chicago Press, 1969), p. 179.

tacit triad and in the rest of the paper I will speak of wholes and triads interchangeably.[5]

First, there are *perceptual wholes* and their joining into complex schemata, including imaginal schemata. Polanyi is not concerned with either the physiological or psychological specifics of perception but with a philosophical derivation based on conscious fact: the immanently experienced organizing act of perceptual and imaginal discrimination, recognition, and construction. This act requires skill. To the degree that we master this skill we dwell within an ordered world of perceptual forms, events, and images. Indeed, coupled with linguistic formations, this world takes on certain aspects, presents a certain mien, that we could identify with a physiognomy. But even apart from the informing power of language, the world, as a set of organized forms, images and events, arises out of the striving of the percipient for coherence within his experiential field, a striving that is intimately coupled with self-satisfaction. The entrance of linguistic and imaginal differentiations within the process produces the cultural determinations of perception insofar as they point out different aspects of the physiognomy of the world. This carving out of the world involves a skill which has to be learned and which can be improved through a greater linguistic and imaginal proficiency.

Indeed, aesthetically man produces forms for perception. In so doing he gives objective shape to his perceptual possibilities and externalizes permanent patterns of perceptual organization by the generation of an image field with which he interacts. He concretizes his consciousness in these forms and in the historical evolution of aesthetic imagination man develops his sensibility. As Friedrich Heer wrote in his *The Medieval World*: " It

[5] Since in *Personal Knowledge* (London: Routledge and Kegan Paul, 1958) Polanyi equates wholes with meanings, the tacit act is *the* condition for the *meaningful* use of consciousness. Cf. *Personal Knowledge,* pp. 57-58, " Wholes and Meanings " and the seminal essay in *Knowing and Being,* " Sense-Giving and Sense-Reading." The exact differentiation of the triads is my responsibility, though it will be clear that Polanyi does distinguish them in slightly different terms. I am using Polanyi's terminology to interpret and extend his ideas on our topics of discussion.

is only through images that man is fashioned in his own true image. These images, with their many layers of meaning, work on him unconsciously, to disturb, direct, arouse and satisfy the innermost core of his being." [6] It is in the perceptual world, first of all, that the great paradigmatic images and symbols of religious consciousness are found. [7]

Secondly, there are *linguistic-conceptual wholes* that rise upon the base of the perceptual-imaginal world. [8] Perception and imagination present a field to be understood, to be sub-sumed under a classificatory scheme, to be objectified in lin-guistic formulations and utterances. Just as perceptual experi-ence can be extended indefinitely through the generative power of imagination, so its further significance becomes embedded in language and these languages can be systematically de-veloped to handle experience and to clarify it. In Piaget's schema of mental development the infant constructs a set of related interpretative frameworks to handle the world forming around him. These frameworks can be confirmed, re-jected, or modified in the course of experience, since both ex-perience and the frameworks are subject to expansion and development. What the infant is doing is *forming a conception* which functions as a focal unity binding together the sub-sidiarily intended perceptual and experiential particulars. [9] In Paul Ricoeur's analysis of the symbolism of evil, for example, we find a categorial progression from defilement, through sin,

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[6] Trans. Janet Sondheimer (New York: New American Library, n. d.), p. 183.

[7] I hope to treat this topic in a study to be entitled "The Imaginal Basis of Religious Insight." I cannot begin, in a footnote to a paper devoted to another subject, to discuss the problematic of images and symbols in religious conscious-ness, so I omit all bibliographic references, which are readily available elsewhere.

[8] As the paragraph itself maintains, one must not look upon the perceptual world as a neutral substrate, untouched by the interpretative activity of the mind.

[9] Piaget functions as a crucial component in Polanyi's account of the developmental stages in the progressive construction of interpretative frameworks. For example, in the process of *assimilation* the framework is used to order and structure new experiences, while in *accommodation* (or adaptation) the framework is itself modified in order to adequately account for novel features of experience that are coming to light.

to guilt.[10] These categories bear upon, and bring into focus, certain paradigmatic experiences of the subject. When we learn to speak either of ourselves or of the world, therefore, we perform an interpretative integration and in so doing we assimilate ourselves into a world. To the degree that the language is shared and used consistently we produce a common world and, over time, a tradition. But the linguistic form is a *higher integration* bringing into focus the lower level subsidiary particulars of the experiential field. Different languages will, therefore, focus on these subsidiary particulars in varying, and sometimes contradictory, ways, but they are all equally *articulate instruments* that we use for clarifying our experience. We rely on them and dwell in them.

Thirdly, there are *effective wholes,* forms of feeling. These wholes emerge, first of all, out of the normal organization and co-ordination of our sensibility and affectivity.[11] They are states of being produced in ourselves. We generate them in ourselves by cultivating them and systematically eliciting them by appropriate exercises. Or they can be emergent concomitants of other activities. These affects—also embedded in language—constitute a manner or mode of response that determines the intrinsic character of an experience, whether perceptual, imaginal, intellectual or motoric, within the unity of feeling. These unities can be experienced, therefore, within the movements of consciousness and define a style or form of existence. And just as there are subsidiary components in the perceptual-imaginal and linguistic-conceptual domains so there are subsidiary components in the affective domain which demand integration, such that we can succeed or fail in a form

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[10] *The Symbolism of Evil,* trans. Emerson Buchanan (Boston: Beacon Press, 1969). This book offers a methodologically relevant and substantively exciting example of many of the topics touched on in the present paper, particularly in the study of the pregnant character of symbols.

[11] In addition to the work of Scheler on the topics of this paragraph, three historical works have an unexplored theoretical significance: H. A. Innis, *The Bias of Communication* (Toronto: University of Toronto Press, 1951), M. McLuhan, *The Gutenberg Galaxy* (Toronto: University of Toronto Press, 1962), and J. Huizinga, *The Waning of the Middle Ages* (Garden City: Doubleday Anchor, 1954).

of sensibility. As Polanyi puts it in *Personal Knowledge*, " any deliberate existential use of the mind may be said to succeed or fail in achieving a desired experience." [12] Even forms of feeling, that is, are emergent entities, achievements, novelties: we construct them as well as are constructed within them. Finally, these affects sediment or coalesce into a frame upon which we rely for achieving a coherence of response within the movement of existence. That is, they become subsidiary, that upon which we do not focus, for they have been assimilated into our existence as a whole.

We may say, then, that the proper human act is the conscious organization and construction of oneself and the world. But the world is multiple and the dimensions of the self and consciousness are multiple. The dynamics of perception, intellection, affectivity generate so many meaning-spaces within the field of consciousness. Taken together they cohere in the unity of the self. They can coalesce into a view, a perspective, an interpretative frame, an horizon. In their structure and development they can determine a Polanyian analogue of the Wittgensteinian form of life. Perceptual, intellectual, and affective meanings result from the integration of subsidiarily intended particulars into meaningful unities and are therefore to be understood as comprehensive two-levelled entities. Now, " since tacit knowing establishes a meaningful relation between two terms, we identify it with the *understanding* of the comprehensive entity which these two terms jointly constitute. Thus, the proximal term represents the *particulars* of this entity, and we can say, accordingly, that we comprehend the entity by relying on our awareness of its particulars for attending to their joint meaning." [13] In Polanyi's terms, we *indwell* these subsidiary particulars in our attempts to give sense (*Sinngebung*) to our existence.[14]

[12] *Personal Knowledge*, pp. 201-202.

[13] *The Tacit Dimension*, p. 13.

[14] ". . . we dwell in all subsidiarily experienced things," " Sense-Giving and Sense-Reading," in *Knowing and Being*, p. 183.

What relevance or heuristic value do these notions have for the analysis of religious consciousness?

II. *The Triadic Structure of Religious Consciousness*

We turn first to Polanyi's analysis of ritual, contemplation, and participation. He writes: "The universe of every great articulate system is constructed by elaborating and transmuting one particular aspect of anterior experience: the Christian faith elaborates and renders effective the supernatural aspect of anterior experience in terms of its own internal experience." [15] This internal experience consists in the evocation and imposition of a set of correct modes of feeling which are enjoyed for their own sake, as an inherent quality of experience, with "no ulterior intention or ulterior meaning." [16] The purpose of ritual is to provide a field of actions, gestures, words, which elicits these modes of feeling. But this field is itself generated by a passionate quest to break out of the normal conceptual framework within which we interpret and experience the world: indeed we indwell the ritual at the same time that we strive to break out of it.

What is the nature of this indwelling in the ritual? Fundamentally it involves an active contemplation, a complete surrender to the constituents of the ritual. As such, "contemplation dissolves the screen (between ourselves and things), stops our movement through experience and pours us straight into experience; we cease to handle things and become immersed in them." [17] As Polanyi writes in a passage that reminds us of Heidegger and Gadamer, "as we lose ourselves in contemplation, we take on an impersonal life in the objects of our contemplation . . . which involves a complete participation of the person in that which he contemplates." [18] By indwelling the ritual or the field of images and giving ourselves up to their inner movement and rhythm, "we break through the screen of objectivity and draw upon our preconceptual capacities of con-

[15] *Personal Knowledge*, p. 283.   [17] *Ibid.*
[16] *Ibid.*, p. 197.   [18] *Ibid.*

templative vision." [19] As a result, " the whole framework of intelligent understanding, by which he [the worshipper] normally appraises his impressions, sinks into abeyance and uncovers a world experienced uncomprehendingly as a divine miracle." [20] For Polanyi ritual, worship, contemplation, derive from the same impulses as the *via negativa*. We are, consequently, invited " through a succession of ' detachments ', to seek in absolute ignorance union with Him who is beyond all being and knowledge. We see things then not focally, but as part of a cosmos, as features of God." [21] It seems that Polanyi is trying to operate here with a generalized notion of a *physiognomy*. Just as the lines and angles of the drawing are integrated into a focal awareness of the face whose features they are, so the ritual and, in general, the field of differentiated religious images presents a set of subsidiary and significant elements which point beyond themselves to a conception of God, his relation to the world, and to ourselves.[22] But the awareness is not theoretically oriented: it is directed toward contemplation.

On this account, the primary meaning of ritual and contemplation, as opposed to theory, is not representative but *existential*. "Anything that functions effectively within an accredited context has meaning in that context and . . . any such context will itself be appreciated as meaningful." [23] He continues:

We may describe the kind of meaning which a context possesses in itself as *existential*, to distinguish it especially from *denotative* or, more generally, *representative* meaning. In this sense pure mathematics has an existential meaning, while a mathematical theory in physics has a denotative meaning. The meaning of music is mainly existential, that of a portrait more or less representative, and so on. All kinds of order, whether contrived or natural, have existential meaning; but contrived order usually also conveys a message.[24]

[19] *Ibid.*, p. 199.
[20] *Ibid.*, p. 197.
[21] *Ibid.*, p. 198.
[22] Conception: an articulate though not necessarily theoretical focus.
[23] *Ibid.*, p. 58.
[24] *Ibid.*

Religious ritual comprises both kinds of meaning, to be sure, but because it is principally concerned with kinds of experiences, including perceptual and aesthetic experiences, the focus is on existential meaning. In terms of our analysis we may say that the purpose of the ritual or image field is to generate in the person perceptual and affective wholes by eliciting the integration of sets of subsidiarily intended words, gestures, actions, and images into a focus which is the *meaning* of the religious experience. The religious experience itself is a *manner of meaning*.

The dialectical implication of the preceding statement is that, in an important sense, religious experience is an action directed toward oneself whose goal is the generation of a proper set of religious attitudes and affect-laden images which would constitute an appropriate *response to the objects* with which we have to do within the ritual or contemplative framework. On the surface there is nothing completely new in this. What is important is the radical emphasis on *meaning*. " The forbidden endpoint of all Christian endeavor: its relapse into emptiness " is reached when the experiences are separated from their meanings and their intentional reference to their objects and become merely subjective.[25] Recall that existential meanings, within the context of ritual and contemplation, must be defined in terms of ordered, structured experiences evoked by an objective form. Representative meanings are embedded as affirmations in the experiences and are thematized in the reflective explorations of theology, and with these we are not specifically concerned. As such, then, Christian religious service (or any other theistic religious service, for that matter) is "a [subsidiarily intended] framework of clues which are *apt to induce* (my italics) a passionate search for God." [26] Ritual, or the total objective context of religious action or perception, then, can be evaluated either from the point of view of its *effectiveness* or from the point of view of what *terminal feelings or affects or patterns of sensibility* are to be produced. But in this

[25] *Ibid.,* p. 281.
[26] *Ibid.,* p. 282.

case it is clear that the terminal feelings determine the means that are to be employed. What are those terminal feelings?

Polanyi himself is very schematic on this point, deriving the major arguments from a lengthy discussion of heuristic passions. The upshot of that analysis is that " the satisfaction of gaining intellectual control over the external world is linked to a satisfaction of gaining control over ourselves." [27] Indeed, perhaps *the* defining characteristic of man is his unrestricted desire to know, to gain intellectual control over the world. This desire is not to be identified with a capacity nor with an attainment. Rather, there is built into the structure of man's questioning and inquiry an immanent dynamics that drives it toward greater completion, coherence, correctness. It is the pursuit of a rational vision of the world. Because, however, man's heuristic passions are subject to the temporal conditions of consciousness and because the range of possible questions far surpasses the range of possible answers, man is irresolvably subject to heuristic tension. This tension—in practically all areas of human living—is both a goad to further inquiry and striving and a mark of finitude. Polanyi thinks that Christianity continues, in a new dimension, this heuristic tension. This insistence on tension puts Polanyi in the main-stream Protestant tradition of Luther, Kierkegaard, and Tillich, and his affinity to the latter is developed in an important footnote in *Personal Knowledge*.[28] However, it seems that practically all forms of religious consciousness would continue this tension, at least to some degree or other. The tension specifies, I think, the *point of juncture* of the existential and theoretical components within religion, comprising both a *manner* and a *meaning* of existing.

Accordingly, Polanyi claims that religious indwelling is not enjoyed. It is instead characterized by a mounting tension along with the " hope of a merciful visitation from above," of a gift of grace.[29] Consequently, " the ritual of worship is ex-

[27] *Ibid.,* p. 196.
[28] *Ibid.,* p. 283, n. 1.
[29] *Ibid.,* p. 198.

pressly designed to induce and sustain this state of anguish, surrender and hope." [30] On this count Christianity *as a response to God* is primarily an existential technique, part of the " technique of redemption " of which man is in need. Needless to say, in light of his problematic, Polanyi does not thematically develop the problem of *why* man is in need of redemption.[31] Involving a heuristic upsurge, Christianity is a " heuristic vision which is accepted for the sake of its unresolvable tension. . . . The indwelling of the Christian worshipper is therefore a continued attempt at breaking out, at casting off the condition of man, even while humbly acknowledging its inescapability." [32] The message of Christianity, therefore, is one of human finitude, of human tension, of irresolvable dissatisfaction with the condition of man along with its resolute acceptance. This acceptance demands a technique and a continuous contemplation. Ritual and the imaginal field of religious consciousness aim to supply the demand.

The affectivity and sensibility that constitutes the mode of response is generated by an articulate framework such as a ritual. The ritual functions as a *subsidiary*: its focal unity— the set of affective responses and transformed perceptual and imaginal physiognomy—must be generated by tacit acts of integration, by performances. However, since the affects and the physiognomy are the *meanings* of the ritual and aesthetic components, they cannot be indifferently chosen for, as vectors, they point beyond themselves. Consequently, the criteria that obtain are *aesthetic* in the literal sense of that term: they deal with forms of feeling symbolically induced. Further, there are in principle many routes by which the affects can be generated and some can be more effective than others in a relative sense.

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[30] *Ibid.*

[31] There would be needed some thematization of the notion of *moral impotence* and its extension into a theory of history. For a preliminary sketch, that I am in basic agreement with, *cf.* B. Lonergan, *Insight: A Study of Human Understanding* (London: Longmans, 1958), pp. 627-630 and all of chapter 20, and the continuation of the treatment in the relevant chapters of *Method in Theology* (New York: Herder and Herder, 1972).

[32] *Ibid.*, p. 198.

Particular aesthetic forms are relative to the consciousness that either produces them or perceives them. In the case of religious ritual we have a situation in which the religious agent both *produces* the elements of the ritual and *perceives* the elements as organized objective forms. He is literally *assimilated* into the world projected by the ritual, or by the field of images and symbols. But the differentiation of the objective form can take place in a number of ways, for in order to produce their proper effect, one has to use words, images, gestures that pedagogically function as clues, vectors, and so forth, the correct integration of which would elicit the affects, since " the power of a framework composed of words and gestures to elicit its own religious comprehension in a receptive person will depend on the non-religious significance of its elements." [33] One can, in principle, vary the elements and in so doing make possible a fullness of affectivity that would otherwise be excluded. Moreover, it would be possible to choose particular forms with which one had a specific psychic kinship. There would result a multiplicity of flexible and fertile forms that would constitute a differentiated set of frameworks ordering and making possible the mind's path to God. Religious heritages would become pools of psychic possibilities in which tropical forests and desert landscapes would be possible happy homes for the religious consciousness.

In this sense, then, the way in which sets of images, symbols, gestures, moods, tones, attitudes are organized defines a pattern that has to be understood and incorporated in the field of one's own consciousness. The effort to do so entails being able to appreciate for their own sakes the various frameworks of experience by which we organize our search for God or whatever we decide to call that ultimate dimension of existence. Appropriation of the multiform religious tradition would provide a non-monolithic, pluralistic religious continuity in accordance with the empirically historical differences in forms of consciousness. Since on Polanyi's principles participation in a ritual,

[33] *Ibid.*, p. 282.

for example, is logically isomorphic with learning a language, this involves a reliance on skill and the skill, in this case, refers back to a set of possible performances directed toward different segments of the world. Thus, in learning the various ritual, symbolic, and imaginal languages we differentiate and enrich our religious world. Furthermore, we create an ever richer subsidiary frame within which we operate religiously and interpret ourselves. The historicity of our religious existence, as interpretative framework and as technique, is rooted in this phenomenon. The subsidiary components within the ritual and contemplative field are primarily affective and perceptual, with the properly intellectual elements playing a secondary role. I emphasize the affective and perceptual especially but not exclusively, for the images and symbols present the field into which we gain insight and to this extent our insights, as thematized, coalesce into the *operative unity* of the religiously performing consciousness. Indeed, the meaning and the construction of the ritual and image field must be, in some sense, under a theoretical control which determines the objects and limits of the belief system. This is a task for philosophical and systematic theology.

The need for theoretical controls is obvious, for religion is not merely—or maybe even principally—existential enactment but also *interpretation* of existence. It is an *intelligible* integration or construal of a range of data or experiences, an objective form of *understanding*. Polanyi discusses its acceptance by contrasting it with alternative relations of articulate systems to experience, and in the following section I would like to show in schematic fashion the relevance of Polanyi's epistemological model to the problem of the mechanisms of acceptance of a religious framework of interpretation, but without attempting to settle any substantive issues.[84]

[84] Such as the problem of the analogical and oblique language in which religious assertions are expressed or the strictly cognitive functions of images and symbols, upon which there is a vast, though rather uneven, literature.

III. *Conversion as Validation*

In *Personal Knowledge* Polanyi makes an interesting distinction betwen *verification* and *validation,* which, I think, bears upon the problematic of conversion in a singularly enlightening way.

The acceptance of different kinds of articulate systems as mental dwelling places is arrived at by a process of gradual appreciation, and all these acceptances depend to some extent on the content of relevant experiences; but the bearing of natural science on facts of experience is much more specific than that of mathematics, religion or the various arts. It is justifiable, therefore, to speak of the verification of science by experience in a sense which would not apply to other articulate systems. The process by which other systems than science are tested and finally accepted may be called, by contrast, a process of *validation.*
Our personal participation is in general greater in a validation than in a verification. The emotional coefficient of assertion is intensified as we pass from the sciences to the neighboring domains of thought. But both *verification* and *validation* are everywhere an acknowledgement of a commitment: they claim the presence of something real and external to the speaker. As distinct from both of these, *subjective* experiences can only be said to be *authentic,* and authenticity does not involve a commitment in the sense in which both verification and validation do.[35]

This process of gradual appreciation is in reality a *pouring of oneself* into an articulate framework, which includes a) an assimilation of a language framework and b) an *interpretative integration* of experience, involving both existential and cognitive integrations. Polanyi characterizes this movement under the rubric of *interiorization.* Writing in the context of a scientific theory, but with a general application in mind, he says:

To rely on a theory for understanding nature is to interiorize it. For we are attending from the theory to the things seen in its light, and are aware of the theory, while using it, in terms of the spectacle that it serves to explain.[36]

[35] *Ibid.,* p. 202.
[36] *The Tacit Dimension,* p. 17.

The spectacle that a religious theory serves to explain or clarify is the movement of human existence in time with its experiences of sin, anguish, suffering and death, what Jaspers calls the limit situations and which are thematized in the great realm of cyphers.

At one level every religion exists as an historical form composed of theories, doctrines, rites and feelings that attempt to deal with this spectacle. The phenomenological point to be noted at this level is the *gradual* construction within the consciousness of the person attempting to meet the form of a set of perceptual, intellectual, motoric, and affective wholes which constitutes the framework itself. The drive toward intellectual and existential self-satisfaction impels one forward to a full expansion of the total set of possibilities found in the form. At the level of acculturation, in short, conversion is an effective and successful assimilation of oneself into an already existent interpretative framework which defines the patterned set of possibilities to be realized.

However, we are faced with a multiplicity of alternative interpretative frameworks for organizing ourselves, for ontologically disposing of ourselves, for construing the total range of human experience and history. By what processes do we commit ourselves to one of them, or to several, or to none at all? By a process akin to the groping of perception and the discerning of *Gestalten* in scientific inquiry. As Polanyi puts it:

The advancement of science consists in discerning *Gestalten* that are aspects of reality. We know that perception selects, shapes, and assimilates clues by a process not explicitly controlled by the perceiver. Since the powers of scientific discerning are of the same kind as those of perception, they too operate by selecting, shaping and assimilating clues without focally attending to them.[37]

From what I can tell the powers of religious discerning share the same structure, though affective and volitional elements

[37] *Science, Faith and Society* (Chicago: University of Chicago Press, 1964 [paper reissue], p. 11).

make up part of the field of clues. Christianity and Zen Buddhism, for example, are highly differentiated frameworks with alternative interpretations of existence and alternative concerns and terminal objects and feelings. The only way, it seems to me, to handle this issue on Polanyian principles is to recognize, in line with our analyses in part one, that there simply is no procedure short of a patient *feeling our way*—cognitively and experientially—into the respective forms and the *experimental* and *hermeneutical* process of seeing whether they make sense in the light of the total set of presuppositions that make up the ultimate frameworks of our minds. These presuppositions are not under the explicit control of the cognitive subject and can for the most part only be brought to consciousness when we are confronted by a set of opposing presuppositions.[88]

Moreover, although there are overlaps between competing forms and frameworks, the specifically theoretical components are separated from one another by *logical gaps* and are, consequently, non-isomorphic. In at least one of the senses of the term, they are alternative *paradigms*, similar to those operating in the scientific field and analyzed so fruitfully by Thomas Kuhn.[39] The peculiarity of such a position is that these conflicting and competing paradigms generate their own evidence, for " facts " within one framework are not facts within another. Indeed, the whole notion of evidence is maximally complicated, for while one type of framework—Judaism, Christianity, Islam—may rely heavily upon historical evidence and factual claims—as clues demanding integration into a higher unity—other frameworks may rely heavily, or even exclusively, upon internal clarificatory power or upon the fact that they are

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[88] Polanyi discusses some aspects of this issue under the rubric of the " premisses of science," in *Personal Knowledge*, pp. 160-171, and in *Science, Faith and Society*, pp. 85-90. From a different methodological context the same topics are discussed in a most penetrating manner in Hans-Georg Gadamer, *Truth and Method* (New York: Seabury Press, 1975), esp. pp. 235-341, although the whole book is pertinent to the topics of this paper.

[39] *The Structure of Scientific Revolutions* (Chicago: University of Chicago Press, 1970).

experientially satisfying in terms of affectivity and self-integration, such as Zen Buddhism or speculative mysticism.

In what sense, then, can we properly speak of the validation rather than verification of an interpretative framework? Certainly religious frameworks, before being accepted, exist as *hypotheses* bearing upon fields of human experience. The function of an hypothesis is to render the data *intelligible* by subsuming it under a *categorial scheme* or *focus*. It is clear, however, that the categorial schemes of Christianity and Zen Buddhism in their bearing, for instance, on the topics—and problems—of self, sin, grace, transcendent reality, are bearers of rather different foci. They both intend an *intelligible integration* of the data—whatever they might be—which strives to be complete. But they are unintelligible to a consciousness which does not have the existential experiences to which they are supposed to be the definitive interpretations. Both are *ways of making sense*, of *integrating* ourselves, but there is an ineluctable element of *choice* involved, of tasting and seeing. These activities are relatively antecedent to the reflective exercises of philosophical theology, though not antecedent to operating within *some* categorial framework.

An act of faith or belief or religious commitment, consequently, *emerges*—slowly or quite spontaneously—out of a dialectical interaction of tacit integrations in a process not explicitly controlled by the person himself. He is caught up in a set of events and meanings—constitutive of a tradition or framework—that make a claim on him and *evoke* from him a response to the *objects* and to the *self-interpretation* found in the tradition's paradigmatic texts and experiences. From this point of view and in this context, rather than being something that we do, conversion is something that *happens* to us. In a sense, we could say, following Gadamer and Polanyi, conversion is a happening in which we find ourselves. It is a *Geschehen* and consequently overspills the merely subjective consciousness of the person.[40]

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[40] This topic lies at the center of Gadamer's hermeneutical project. Full and nuanced treatment will be found in *Truth and Method*.

To understand a religious framework, then, involves an act as " existential " as that of participating in a ritual or in contemplation. We are caught up in a movement of meanings and objects that determines a final ultimate horizon for our lives, that furnishes a definitive mental center or coordinate system. To understand, in this sense, involves *trust* in the same way that the very effort to learn a language involves trust, a primary form of commitment to the *realities* intended by the meanings constituting it.

In the light of the preceding discussion religious understanding and religious conversion come to the same thing. Hermeneutically they involve a process of " passing over " and attempting to *identify* within the circle of one's own experience the generative experiences and insights explicitated in the tradition and objectified in its symbols. It involves the risky process of " experimenting with truth ", of mapping certain sorts of meanings onto our lives. This process of passing over and mapping is a subsidiary, tacit process, the construction, first of all, of an image- and feeling-field into which we can have an insight and then the articulation of that insight in language and symbol schemes. Just as in the case of our assimilation into ritual and the construction of its intentional unities, so in the case of other articulate sets of meanings, including the complex objectifications of art, we must be assimilated into them before we can truly comprehend what they are about, for they are wedded, at crucial points, to certain experiences. Our tacit act of insight—involving an interiorizing subsumption of a framework—is the pivot upon which our comprehension of any religious tradition turns and generates the integration of these experiences into a higher intelligible or categorial unity.[41]

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[41] I am aware of how compressed my statements are here and how much they need expansion. But I can only refer to the differentiated hermeneutical context represented by the total work of Polanyi, Gadamer, and Lonergan. I derive the notions of passing over and experimenting with truth from the stimulating works of John S. Dunne, *A Search for God in Time and Memory* (New York: Macmillan, 1969) and *The Way of All the Earth* (New York: Macmillan, 1972).

There is an unresolved issue that has hovered over the preceding argument of the paper, however, and it is time to meet it. We have presupposed, in short, the validity of *some* religious framework within which we construct our existence, but what governs our stepping into any religious framework to begin with? In this sense conversion is no longer a hermeneutical problem involving a complex mapping of a particular religious form of existence upon our lives. It is rather a philosophical and critical problem as such.

I am not sure that this issue can be settled strictly within the framework of analysis furnished by Polanyi's epistemological model. The paradigm case of intellectual integrations for Polanyi is scientific inquiry which strives to understand the structures and relations obtaining within the physical world, to discern a set of rational harmonies that make up the cosmic order. In its innermost dynamism Polanyi's notion of science is realist. Indeed, in line with his general hostility to all forms of reductionism, different kinds of objects and processes demand different forms of inquiry in order to be rendered intelligible. Psychological phenomena, or socio-historical phenomena, demand a categorial framework that respects their particular distinctive structures. As such, then, the categorical frameworks of religious traditions are attempts to render the data of religious experience itself intelligible. From an epistemological point of view there does not seem to be any real doubt about the reality of the objects investigated in the empirical sciences of physics, chemistry, biology, sociology, history. While it may be granted that they utilize complex theoretical constructs, on realist principles, such as we have in Polanyi's epistemological model, these constructs do, nevertheless, bear on a reality independent of the framework itself.

But in the case of religious frameworks this is precisely the question. The concept of God arises within a very specific matrix and as the integrative focus that renders intelligible a whole set of clues functioning as heuristic pointers toward a center. From a critical philosophical point of view, then, the task is to pinpoint those vectors that guide our minds toward

the God-hypothesis. Obviously, the most massive set of vectors are found in the religious traditions as objectified symbolic forms and, *from a dialectical point of view,* one has to confront the interpretation of these experiences by, for example, the theistic hypothesis with the interpretation derived from, say, Freudian psychoanalysis. But in their analysis of the objects coming to presence in the texts and experiences of the religious tradition the two interpretations are separated by a logical gap and they thematize radically different worlds. One has, in short, to choose.[42]

Moreover, there is not found in Polanyi's work anything resembling a proof of God's existence, although he does point out just where we might situate God and the religious hypothesis in relation to other cognitive and existential forms. I indicated the possible point of juncture earlier in the paper by noting how the religious hypothesis carries on the heuristic tension that marks our lives as inquirers and questioners. There is an ineluctable " why " at the heart of the human encounter with the world that drives inquiry constantly toward *grounds*. Things in the world need grounds, at least in the form of explanations that render their actual occurrence intelligible. The drive toward intelligibility and explanation, involving the very movement of our conscious intentionality, offers us, perhaps, the crucial hint of just where the validation of the God-hypothesis is to be found, and the move to the transcendent can perhaps only be elucidated by a rigorous and systematic reflection upon the dynamic matrices of this intentionality. This, as will be clear to the readers of this paper, is a long story indeed, and cannot be settled within the parameters of the present essay. But, from the point of view of Polanyi's discussion of validation, I would hazard the observation that the turn to reflection upon *engagement* that marks all inquiry, upon the personal participation that conditions all human cognitive achievements, and upon the preconditions and presuppositions of all acts of knowing, would give us heuristically some help in formulating

[42] The decision, nevertheless, is a *conceptual* decision.

a properly philosophical approach to the theistic scheme of things. In another paper I hope to show how the only way theistic proofs can make sense is through conceiving them as performances in which we are unavoidably caught up, but I cannot go into that now.[43]

In conclusion, then, I have to tried to indicate in the course of the paper some contributions that Polanyi's epistemological model can make to the understanding of religious consciousness in general and to the phenomena and processes of conversion in particular. I have tried to show the personal component involved in religious knowing and praxis and the performative and intentional character of the religious mode of being in the world. At the heart of the analysis lies the notion of integration of particulars, functioning as clues and vectors, into wholes. The strongest point of Polanyi's model, in my opinion, lies in drawing our attention to the crucial role of these particulars in all their manifold diversity. Religious knowing is a skill that has to be developed through a process of enactment, whether the enactment be ritualistic, contemplative, imaginal-artistic, or philosophical. The notion of tacit triads functions as the key. Through gesture, through image, through language we build up in ourselves a consciousness that relates us, ineffably, to the term of our striving, and gives us some base for grasping, in thoroughly negative fashion, that term.[44] The role of philosophical theology has not been emphasized in this paper not because I think it unimportant but rather because the issues are too complex to be handled here. I would like to note, nevertheless, that the philosophical move to God, a properly philosophical conversion, involves the cultivation and evocation of certain *intellectual experiences* in the absence

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[43] This issue is broached in David Burrell's seminal *Analogy and Philosophical Language* (New Haven: Yale University Press, 1973). Cf. the section " Thomas Aquinas: Analogical Usage and Judgment," pp. 119-170 and my review of this book in *The New Scholasticism*, 48 (1974), pp. 386-398.

[44] In his analyses of meaning and in his breakthrough to a thoroughly *critical* epistemological position Lonergan, I think, has given us a basic heuristic, though undeveloped, framework for the construction of a comprehensive religious semantical framework, but the actual working out of the framework remains a future task.

of which the move cannot take place and that, once involved in the experiences, one finds it exceedingly difficult to explicitate, in any satisfying fashion, just why and how they are sufficient, or even, in fact, what exactly they are, short of *experiencing the movement* of total reflection itself.

Can one *prove* any particular religious tradition or framework of interpretation to be true? It would seem not, if we are thinking in factual terms, though we certainly can *argue*, in dialectical fashion, that one is more *believable* and satisfying than another. Our arrival at our commitment, based as it is on inner experience—in its total range—and the process of passing over, is a process of validation guided by our heuristic passions, which drive us on to construct a comprehensive framework wherein we can construe our existence as a moving totality.

Therefore, the problem of the character of conversion and the structures of religious consciousness raises the issue of self-meaning to a truly universal level. It consists in our being called to a universal ontological disposition of ourselves. We are thrown back onto ourselves in order to be confronted with a set of meanings and existential and experiential options that, perhaps, demand more than a human commitment. But the commitment itself, whether accepted or rejected or modified, flows from a tacit, a-critical act that integrates and objectifies certain crucial aspects of our experience. Although we have settled no other issue in this paper we must recognize this act as our ineluctable fate in the face of the manifold conflicting appeals to our allegiance. To recognize its structure and the matrices within which it operates is one vital step in our own process of coming-to-exist. We are indebted to Polanyi for showing us in such a precise and comprehensive way the epistemological mechanisms involved.

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WHAT MAKES A HUMAN BEING TO BE A BEING OF MORAL WORTH?

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HE PURPOSE of this paper is to explore the question
" What makes a human being to be a being of moral
worth? " [1] By a being of moral worth I mean an entity
that is the subject of inalienable rights that are to be recognized
by other entities capable of recognizing rights and that demand
legal protection by society. By a being of moral worth I mean
an entity that is valuable, precious, irreplaceable just because
it exists. By a being of moral worth I mean a being that cannot
and must not be considered simply as a part related to some
larger whole.

I believe that human beings are such entities. I realize, of
course, that many people do not believe that human beings are
beings of moral worth. Yet this belief is at the heart of Chris-
tian faith,[2] and it is, moreover, central to the "American

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[1] Although he does not use this term, the question of man's moral worth is
central to the thesis developed by Mortimer Adler in his *The Difference of Man
and The Difference It Makes* (New York: Meridian, 1968). A more recent study
by Roger Wertheimer, " Philosophy on Humanity," is another essay of crucial sig-
nificance for the theme of this paper. Wertheimer does not use the expression
" being of moral worth," but he argues that every member of the human species
enjoys what he terms " human " or " moral status," and as a result there is a
" kind of independent and superior consideration to be accorded " entities having
human status. Wertheimer himself does not regard it as a definitional truth that
human beings have human or moral status, but the entire thrust of his paper is
to argue that being human is a relevant moral consideration precisely because
we are to accord an independent and superior status to human beings. His paper
has appeared, since this article was written, in *Abortion: Pro and Con*, edited by
Robert Perkins (Cambridge: Schenkman Books, 1975), a volume that also includes
an essay by the present author.

[2] The dignity, indeed the sanctity, of human beings as beings of moral worth
has been consistently taught by the Church. A recent reaffirmation of this teaching
can be seen in *The Pastoral Constitution on the Church in the Modern World*
(*Gaudium et Spes*) promulgated at Vatican II. See, in particular, paragraph 19.

Proposition." It is one of those truths that we hold in common, as a matter of shared consensus,[3] and it is what one contemporary author terms a " Standard Belief." [4] Although many of our contemporaries may radically deny this belief, claiming that it is completely false as a proposition about the meaning of human existence, it is certainly operative on a pragmatic level in American society—and indeed it seems to be a belief operative in other societies as well, including the international society as organized in the United Nations. B. F. Skinner, it can truthfully be maintained, would not maintain, as a statement of metaphysical truth, that a human being is a being of moral worth—a being of inherent dignity and incomparable value, a *res sacra*—but he would maintain that he ought to be so regarded in his sociopolitical life. For him and for many of our contemporaries it is " true " in a pragmatic sense that a human being is a being of moral worth; belief in this proposition makes good laws possible. None of our fellow citizens (no human being, really), save for pathological conditions, wants his fellow human beings to treat him as an object to be manipulated or managed or even destroyed for the interests of others. This is at the heart of the " Golden Rule," which can, I believe, be understood as follows: You, a moral being or agent, are to do unto others, beings of moral worth, as you, a being of moral worth, would have others, moral beings or agents, to do unto you, a being of moral worth." [5]

That a human being is an entity of moral worth is something recognized publicly in the United States: the first ten amendments to the Constitution, and many subsequent ones as well, were intended to limit the powers of government, and they limited these powers in the name of rights belonging to in-

In *Documents of Vatican II,* edited by Walter M. Abbott, S. J. (New York: Guild Press, 1965), pp. 215-216.

[3] On this see John Courtney Murray, *We Hold These Truths* (New York: Sheed and Ward, 1960), pp. 87-105.

[4] See Wertheimer, *art. cit.*

[5] Wertheimer *suggests* this way of formulating the Golden Rule in his essay, and I seek to develop it in my commentary thereon.

dividuals and to states. The Supreme Court's decisions in the Roe v. Wade and Doe v. Bolton cases on the constitutionality of abortion laws were based on the right (moral and legally protectable) of the woman seeking an abortion to privacy. The operative principle governing the Court was that a human being is an entity of moral worth, a subject of protectable rights.

In the Roe and Doe decisions the Supreme Court also held that a fetus is not such an entity. Although the Court did declare that it had no intention of settling the difficult question of when human life begins (it explicitly admitted that *if* the fetus is indeed humanly alive the decision it ultimately rendered would have been different, and in admitting this the Court implicitly acknowledged that being a human being is, *coram lege,* a morally significant factor[6]), it actually did determine this question. For it consistently maintained that the fetus, even after viability, is only " potential life " or the " potentiality of life." [7] Obviously, if the fetus is only " potential life " or the " potentiality of life " it is *not* life. My oldest boy, for instance is a potential father—he is not (so far as I know) actually a father. But were he actually a father he *could not* be potentially a father.

The abortion controversy as such is not my concern here. This controversy, however, is very illuminating for the clues it provides regarding the question before us, namely " What makes a human being to be a being of moral worth? " Many of those who advocate abortion as a solution to some of the terrible problems confronting human society do not, of course, regard the fetus as a human being. They look upon it as " protoplasmic rubbish " (Philip Wylie) [8] " gametic materials " (Joseph Fletcher) ,[9] a " blueprint " (Garrett Hardin) ,[10] a " part of the

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[6] *Roe v. Wade. The United States Law Week* 41 LW (1-23-73), X, 4227.

[7] *Ibid.,* X and XI, 4228-4229.

[8] Philip Wylie, *The Magic Animal* (New York: Doubleday, 1968), p. 272.

[9] This is the term Fletcher uses to describe the developing fetus in his article, " New Beginnings of Life " in William Hamilton, ed., *The New Genetics and the Future of Man* (Grand Rapids, Mich.: Eerdmans, 1972), pp. 76-91.

[10] Garrett Hardin, "Abortion—or Compulsory Pregnancy? " *Journal of Marriage and the Family* 30 (May, 1968) 250.

woman's body" (Havelock Ellis), [11] or something of this kind. But others who will justify feticide—for this, after all, is what abortion is—are ready to concede that the fetus *is* a human being, that it is humanly alive. In fact, medical and biological evidence *falsifies* any claims that the fetus is not humanly alive, and numerous writers are willing to concede (for example, Daniel Callahan,[12] James B. Nelson,[13] and even, paradoxically, Joseph Fletcher! [14]) that the fetus is human and alive during its development *in utero*. Nevertheless these writers defend abortion (if not on demand at least when mandated by specifiable medical and psychosocioeconomic reasons) and argue that abortion is not the killing of a *person* or of an entity *meaningfully* human, even if it can truthfully be described as a killing of a human being. For most of these writers human life in all its forms merits respect and recognition, but only human life in its personal or meaningful forms generates the respect due to an entity of moral worth. What this means, and this is a tendency observable in much of the writing occasioned by the abortion controversy, is that many authors today make a very significant distinction between a *human being* and a *person* or a human being who is *meaningfully human*. They distinguish, in other words, between a human being and what I have called a being of moral worth. For these writers an entity is not a being of moral worth because it is a human being; rather it is such a being because it is, in addition to being a human being, a person or a meaningfuly human entity. For all these writers the position taken by Daniel Callahan is

[11] Havelock Ellis, *Studies in the Psychology of Sex*, Vol. 6, *Sex in Relation to Society* (Philadelphia: F. A. Davis, Co., 1910), pp. 607-608.

[12] Daniel Callahan, *Abortion: Law, Choice, and Morality* (New York: Macmillan, 1970), p. 409 ff.

[13] James B. Nelson, *Human Medicine* (Minneapolis: Augsburg, 1974), pp. 20, 51 ff.

[14] In his recent work, *The Ethics of Genetic Control: Ending Reproductive Roulette* (New York: Doubleday Anchor, 1974), Fletcher quite frankly admits that the fetus is *biologically* a human entity, a living human being. His argument is that it is not meaningfully human or significantly human in a moral or personalistic sense.

paradigmatic: we can make nuanced distinctions among human beings, judging some as subjects of rights protectable by society and others as not being such subjects.[15]

There are many problems with this position. The most basic, of course, is to determine what it is that makes a human being to be a person or a meaningfully human existent (=being of moral worth) if it is something distinct from his being human to begin with. Who among us, in other words, is to count as a being of moral worth? Joseph Fletcher attempts to give us some "indicators of humanhood," and among them he includes an I. Q. of at least 20 and probably 40, self-awareness, self-control, a sense of time, and the capability to relate to others.[16] Obviously if these are the criteria for determining who is a being of moral worth (=a person, a "meaningfully human" human being), then many entities who can truthfully be said to be human beings do not count as beings of moral worth.

The thrust of this direction in contemporary thought is luminously and explicitly set forth in a provocative essay by Michael Tooley. According to Tooley an entity, in order to be the subject of moral rights (what I mean by a being of moral worth and what many authors term a *person* or a *meaningfully human* being) must be a being "possessing the concept of a self as a continuing subject of experience and other mental states" and believe that "it is itself such a continuing entity."[17]

What is significant about Tooley's position is that it explicitly denies that membership in the human species is of moral significance.[18] This denial ought logically to be acceptable

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[15] See Callahan, *op. cit.*, pp. 388-389. Here it is important to read the penetrating analysis and devastating critique of Callahan's position offered by Paul Ramsey in his "Abortion: A Review Article" in *The Thomist* 37.1 (January, 1973) 174-226, in particular 176-188.

[16] Fletcher, "Indicators of Humanhood," *The Hastings Center Report* 2.5 (November, 1972) 1-4. Fletcher returns to this subject and elaborates his criteria for humanhood in his *The Ethics of Genetic Control.*

[17] Michael Tooley, "Abortion and Infanticide," *Philosophy and Public Affairs* 2 (Fall, 1972), pp. 44, 48, 55.

[18] *Ibid.*, 48.

to all those contemporary writers (and we can add Gerald Leach [19] and Louis Dupré [20] to those already mentioned) who distinguish between being a human being and being a person or a " meaningfully human " being. In other words, for these writers the reason why a human being is a being of moral worth is *not* something rooted in his being as a human being, that is, an entity that is by nature a member of an identifiable biological species, but rather in his being a person or " meaningfully human " human being, and what makes him to be a person or " meaningfully human " differs from what makes him to be a human being.

The thesis advanced here is that the reason why a human being is a being of moral worth is rooted in his membership in the human species. What makes an entity to be a human being simultaneously makes it to be a being of moral worth. The thesis advanced here, moreover, holds that the ultimate reason why a human being can *become* a personal subject is rooted in his being human to begin with and is identical with what makes a human being to be a being of moral worth. The position taken here, in short, holds that membership in a species *is* a matter of serious moral significance, and it is so because the human species constitutes a class of beings who are *different in kind* from other living species. To be a human being is, of course, to be an animal, but it is to be an animal of a radically different kind from other animals; the animality of human animals is a different kind of animality from the animality of other animals, and it is so because of the presence of something within the human animal that is not present within any other animal that we know of.

Before setting forth the lines of argument necessary to establish the truth of this thesis it is first advisable to make some

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[19] See Gerald Leach, *The Biocrats* (Baltimore: Penguin, 1970). Leach obviously considers the fetus a human being (p. 161) but in his advocacy of infanticide (pp. 102-104) he evidently considers that not only fetuses but even infants are not beings of moral worth, i. e., meaningfully human.

[20] Louis Dupré, " New Approach to Abortion Problem," *Theological Studies* 34, 3 (September, 1973), pp. 481-488.

comments about " rights " and the bearers of rights.[21] It is frequently asserted [22] that only " persons " (or meaningfully human entities) are the subjects of rights and that nonpersonal entities (with fetuses and neonates included in this classification) have no rights. And ordinarily entities such as rocks, trees, cats, dogs, cows, and similar objects are not regarded as bearers of rights. I submit that our ecological consciousness is pertinent here—there has been, as it were, a lifting of our horizons.[23] It is intelligible to maintain with John Cobb and others,[24] in other words, that every being, every entity, is a bearer of rights in a significant sense; everything that is is a bearer of what might be termed *ontic* rights. These rights, of course, can be *recognized* and *articulated* only by special sorts of entities, namely those capable of intellectual knowledge, and they impose moral obligations only on these kinds of entities. But the fact that a cat, for instance, is not aware of its own

[21] " Rights " language was not central during the Middle Ages, but a sound philosophy of rights is provided by Thomas Aquinas in the treatise on justice in the *Summa Theol.*, II-II, qq. 57-122, in particular qq. 57-58. A good contemporary presentation of a Thomistic philosophy of rights is given by Josef Pieper in his *Justice* (New York: Pantheon, 1965). Recently Joseph Allen offered an interesting " Theological Approach to Moral Rights " in *The Journal of Religious Ethics* 2 (Spring, 1974) 119-142, in which a provocative survey of such important philosophical theories of rights as those of H. L. A. Hart, W. D. Ross, and Gregory Vlastos is provided. John Rawls's *Theory of Justice* and James Childress's *Civil Disobedience and Political Obligation* are representative of two serious contemporary endeavors to work out a theory of rights and duties.

[22] For instance, in the theory of rights developed by H. L. A. Hart ("Are There Any Natural Rights? " *The Philosophical Review* 64, April, 1965, pp. 175-191) only human beings " capable of choice " are subjects of rights in any meaningful sense. The same is true of the position developed by Geoffrey Russell Grice in his *The Grounds of Moral Judgment* (Cambridge: The University Press, 1967). Grice maintains (p. 148) that children below a certain age cannot know " what is involved in making, and being bound by, a contract " and thus cannot be the bearers of rights. Obviously for these writers, and for many others, only " persons," i. e., entities capable of making choices, are the bearers of rights.

[23] Here it is instructive to note that lawsuits have been brought in order to protect the " rights " of trees and rivers in recent years.

[24] John R. Cobb, *Are We Too Late?* (New York: Bruce-Macmillan, 1973), a brief work arguing for ecological rights of animals and plants and rivers and oceans and for moral obligations on human subjects to recognize and protect these rights.

existence does not mean that it has no rights whatsoever and that these rights are not to be recognized by beings capable of recognizing them. It simply means that an entity like a cat (or a tree or a rock) might have different *kinds* of rights from those possessed by other kinds of entities. Cats are surely not bearers of moral worth; they are not irreplaceable, precious, priceless, of transcendent value in themselves. But this does not imply that they are not of any value. Cruelty to animals is reprehensible, on this view, not only on the grounds of what it has to say about the human beings who are cruel but also on the grounds of the wrong that it inflicts upon sensate beings.

The most basic right of any entity is to be recognized for what it is, and those entities capable of recognizing entities for what they are have the obligation to do this, namely, to recognize them for what they are. Another basic right would be a claim, even if not inviolable or inamissible, on those realities that are related to an entity's basic needs, that is, a claim on goods truly perfective of it, goods that enable it to *be* what it is.

In the previous paragraph mention was made of "obligation." The kind of obligation referred to was a *moral* obligation, one rooted in the capacity to distinguish between *is* and *ought*. In reflecting on the meaning of moral obligation we will, I believe, be led to see the major lines of argumentation necessary to establish the truth that being a human being is to be a being of moral worth.

A leaf has no obligation, morally speaking, to fall to the ground when it is released from a tree; its falling to the ground is simply a matter of natural necessity. Of all the beings of our experience only human beings are beings to whom moral obligations can be meaningfully attributed. Human beings, in short, are moral beings. By a *moral being* I mean something different from a *being of moral worth*, although I believe that these terms are interrelated and that what makes a man to be a moral being is what makes him to be a being of moral worth. A moral being is an entity that is the bearer of moral duties or obligations. We cannot meaningfully say that a rock or a

tree or a dog or a cat or a chimpanzee is such an entity.[25] For these beings there is no evidence that warrants our concluding that they are capable of distinguishing between *is* and *ought*. There is for them no *moral* imputability or accountability or responsibility. It is, however, quite meaningful to say that human beings are moral beings inasmuch as there is ample evidence that human beings do distinguish between *is* and *ought* and experience remorse over deeds that they themselves knew they ought not to do at the very time of their doing.[26]

Human beings are moral beings because they are *minded* entities: as intelligent, inquiring entities human beings can come to know what is and to recognize what is for what it is and respond to what is in an appropriate or fitting mode. Moreover, in responding to what is they are capable of self-determination, that is, of making the response their own. This capability is meaningless unless they can respond in ways that are *not* fitting or appropriate to the demands placed upon them by what is. A moral being, in other words, is a minded being, and by a minded being is meant a being capable of intellectual knowledge (=of coming to an understanding of what is for what it is) and of freely determining its life by choosing of itself what it is to be by being willing to do this deed rather than that.[27] A moral being, in short, is a being capable of performing acts of understanding, of choice, and of love.

[25] Were one to maintain, in the lack of any compelling evidence, that an entity such as a chimpanzee has moral obligations, one would be in a position analogous to that of a person who would argue that Ireland has the largest navy. Assertions lacking evidence or arguments in their support are simply that: gratuitous assertions.

[26] Here I believe that the comments of Herbert McCabe on the distinction between *regret* and *remorse* are pertinent. " Regret means realising that you *now* wish you had not behaved in a certain way; remorse is the realisation that you did not really wish to behave in that way *at the time*, that the behaviour was contrary to your deepest desires, your need to be truly yourself." *What Is Ethics All About?* (Washington: Corpus, 1969), p. 61.

[27] The issue of human freedom of self-determination is a huge one, and one that cannot be taken up in any depth here. For a recent argument that determinism is self-contradictory, indeed meaningless, see Joseph M. Boyle, Jr., Germain Grisez, and Olaf Tollefson, " Determinism, Freedom, and Self Referential Arguments," *The Review of Metaphysics* 26, 1 (September, 1972), pp. 3-37.

Human beings are such entities, and their being entities of this sort is evidently related to what the authors whom we have been criticizing have in mind when they speak of persons or meaningfully human beings. For a person (or an entity that possesses " meaningful " human life) is indeed a minded entity, that is, a self-conscious and self-determinative entity. Moreover, and this is something that we know by reflecting upon our experiences and coming to an understanding of them, not all human beings (not all entities that can truthfully be included in the human species) are *actually* minded entities or moral beings. Neonates, infants, raving maniacs and many other members of the human species (*a fortiori* fetuses) are incapable of recognizing what is for what it is and of responding to the demands that what is imposes upon moral beings. Yet we must then ask what is it that makes it possible for *some,* indeed *most,* members of the human species to become minded entities or moral beings. My thesis is that the ultimate reason why *some* human beings are capable of becoming minded entities (i. e. moral beings) is something rooted in their being human beings to begin with, something that they share with those members of the human species who are *not* actually minded or moral beings, and something that is the root reason why they and *all* members of the human species (including neonates, infants, raving maniacs and fetuses) are beings of moral worth. This " something " has been variously named. It is the *ruach* of the Old Testament and the *pneuma* of the New Testament; it is the *nous poietikos* of Aristotle, the *mens* of Augustine, the *anima subsistens* of Aquinas, the *memoire* of Bergson, the *Geist* of Rahner. However named it is the principle immanent in human beings, a constituent and defining element of their entitative makeup, that makes them to be what and who they are: beings of moral worth capable of becoming minded entities or moral beings; it is a principle of immateriality or of transcendence from the limitations of materially individuated existence.

But how do we know that a principle of this kind is constitutive of human beings? To answer this question it will be

helpful to inquire into what we mean by *minded* entities, moral beings. And here certain empirical data and observations of José Delgado, the famed Yale neurosurgeon, have special pertinence, especially when we relate these facts to philosophical and theological notions that have a long history, a history that still lives in the contemporary world.

First, let us look at the empirical data. There have been authenticated instances of feral or " wolf " children, that is, children who have been abandoned or lost in the forest at a very early age and who have been " adopted " and reared by wild beasts such as wolves or bears. Such children are indisputably human beings, members of the human species. When these children have been discovered they have been found to be totally lacking in self-consciousness. They do not realize that they are selves, that they are subjects; they have no consciousness or awareness as enduring subjects of experience. Why? The reason is evidently that they have not been exposed to the process of enculturation or what might also be termed humanization. They have lacked contact with other human beings; they have not encountered in their experience beings who are aware that they are "selves." Thy have accordingly not been able to develop interpersonal, intersubjective relationships and through the development of these relationships to come to recognize themselves, to come to understand that they are indeed " selves," " subjects," " persons." [28]

Second, let us look at the views of Delgado. He argues that the mind is not, as many writers today maintain, entitatively to be identified with the brain: a physical organ that has achieved an incredible degree of complexification in the human animal. He maintains that the mind must be understood in terms of its function, and so understood it consists in the interrelationships between a particular kind of brain, namely the highly complex brain that we find in human entities, and an environment that is cultured. Thus

[28] On feral children see Joseph Sing, *Wolf Children and Feral Children* (New York: Basic Books, 1962).

some entities that possess highly complex brains (e. g., feral children) are not minded (and I would add *moral*) entities because they have not interacted with a cultural environment. But we, that is, most members of the human species, are entities that are brained and that do interact with a cultural environment and that become, as a result of such interaction, minded entities, animals who blush, and rightly so, because of our behavior. Delgado argues, and from his perspective rightly so, that at birth we are possessed of brains yet mindless, and that we *become* minded entities (what the writers whom we have been criticizing term persons or meaningfully human human beings) by interacting with our environment, an environment that includes other human beings who have constructed a culture and mediate this culture to new entities who have the same kind of brain that they have. To support his argument Delgado points to incontrovertible empirical data. For a human being to become minded (=personal, meaningfully human, a moral agent) it is necessary to exist within an environment that includes *other* human beings and their culture.[29]

Delgado is saying, in effect, that a cultural environment is a necessary condition for the emergence of minded entities, and this is a conclusion that seems justified by the existence of feral or "wolf " children. A cultural environment is a *conditio sine qua non* for the existence of entities actually capable of self-consciousness and self-determination, actually capable of knowing what is for what it is and of responding responsibly to the demands imposed by this recognition. Moreover, since only entities possessing brains of a certain degree of complexification (i. e., human brains) become " minded " by interacting with a cultural environment,[30] it seems to follow that a particular kind of brain is another *conditio sine qua non* for the

[29] José Delgado, *The Physical Control of the Mind* (New York: Harper and Row, 1971), pp. 32-59.

[30] A recent, important study of the brain that argues that the brain is indeed the sufficient reason for human beings becoming minded is Steven Rose, *The Conscious Brain* (New York: Alfred A. Knopf, 1973).

existence of " minded " entities. But are culture and a brain not only the necessary but also the *sufficient* conditions required to explain adequately the existence of such entities?

To answer this question let us first look at one of the conditions necessary for the emergence of minded entities, namely culture. A culture is not something subsistent in itself; it is not a reality that comes into being by nature or natural necessity. It is an artifact, a " product " of entities that do exist " by nature," and these entities are precisely those whom we designate by the expression *human beings*. Cultures " exist " only because human beings exist. Human beings are the culture-building animals. This is something recognized by those who, like William S. Beck, would surely reject the view that a human being is, in truth, a being of moral worth, a being who is unique, irreplaceable, precious, a value transcending the entire material universe. Although for Beck and for many of our contemporaries a human being is simply a material entity (an animal) in no way discontinuous with the rest of the material universe,[31] this being is for him unusual—indeed unique in one sense— insofar as he is the culture--building animal. Beck himself writes:

life is a web of which man is part and prisoner. . . . What of man, the organism? What is he? What is his origin, his state, and his destiny? Man, we know, is an animal, which like all other animals seeks food, shelter and security, mates and reproduces, who fights off the encroachments of a hostile environment, until it is possible to fight no longer. Then like all animals, he dies. But man is unique among animals, for he alone has the ability . . . to build cultures. His growth is not completed by reproduction, nor is it fulfilled by death, because the biological pattern of man has made his nature self-surpassing.[32]

[31] Adler, in the work cited in note one, develops the theme that the human animal is continuous with material creation completely if he differs only in degree or only superficially in kind from other animals, whereas there is a discontinuity in nature if the human animal does indeed differ radically in kind from other animals.

[32] William S. Beck, *Modern Science and the Nature of Life* (New York: Doubleday Anchor, 1961), p. 17.

When he says that "the biological pattern of man has made his nature self-surpassing," Beck is saying in effect that something within the entitative constitution of the human animal enables him/her/to surpass or transcend himself/herself/and, because of this, to build culture. Beck, along with many other writers today, would argue that the brain (the other *conditio sine qua non* referred to previously for the emergence of minded entities) is this enabling factor. And the brain of a human being is an enormously complex organ, consisting of over 10,000 million neuron cells and capable of storing information, reading signals, transmitting messages and explaining many of the activities that human beings do.[33]

Yet the question can and must be asked whether everything that human beings do and are capable of doing can be explained sufficiently and adequately in terms of the neurological processes going on within the brain in interaction with a cultured environment. The question can and must be asked whether a human being as a minded entity is a *moral being* precisely and exclusively because he is a being in whom a physical organ, the brain, has achieved a tremendous degree of complexification or whether his being a moral being (a minded entity and a culture-building animal) requires us to infer within his entitative constitution a principle of immateriality, a principle that is his because of his being the kind of being that he is, namely a member of the human species, and a principle that makes the human animal not only to be a being radically capable of becoming a moral being (a minded entity and a culture-building animal) but also to be in virtue of his being human to begin with a being of moral worth.

Upon what evidence and arguments can we seek to answer this question truthfully? The major evidence that I wish to present concerns the moral dimension of human existence and the relationship between this dimension and the existence of civilization. The major arguments that I then wish to present

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[33] For a description in detail of the structure of the human brain and the phenomenal range of activities explainable in terms of its functions, see Rose, *op. cit.*

focus on the capabilities within the human animal that must be inferred if an adequate explanation is to be given of the moral dimension of human existence.

The human animal is the only animal for whom there is overwhelming evidence of a moral dimension to its existence. This is a phenomenon that comes forcefully home to anyone who takes seriously the work of ethnologists such as Lady Jane Van-Lewyick Goodall. Lady Jane lived with a group of chimpanzees (a primate universally regarded as biologically quite similar in development to humans) in the Lake Tanganyika area of East Africa for over a decade. She came to love these animals, to respect them, to recognize them as beings of tremendous capabilities; and she came to be accepted by them as a " friend." Her book describing her life with the chimpanzees is one of the most fascinating and beautiful books about animals ever written. Her studies (and the studies of many other ethnologists, particularly those involved in the research at Yerpes Observatory) amply document the " intelligence " of these creatures (more of this below). Despite the tremendous similarities between the life of chimpanzees and the life of humans that she was able to document in detail, Lady Jane nonetheless concluded that there is a vast gap between the human animal and chimps. In the world of chimpanzees— and from what we know in the world of all other animals other than the human—superior strength and dominance within the group is the fundamental " law " of group relationships, something far different from the factors operative in human relationships. There is a total lack of any " moral " considerations in the existence of chimpanzees, whereas considerations of this kind are definitely central in human existence. As Lady Jane puts it,

When one human begs forgiveness from or gives forgiveness to another there are moral issues involved; it is when we consider these that we get into difficulties in trying to draw parallels between chimpanzee and human behavior. In chimpanzee society the principle involved when a subordinate seeks reassurance from a superior, or when a high-ranking individual calms another, is in no

way concerned with the right or wrong of the aggressive act. A female who is attacked for no reason other than that she happens to be standing too close to a charging male is quite as likely to approach the male and beg a reassuring touch as is the female who is bowled over by a male while she attempts to take a fruit from his pile of bananas.[34]

Human civilization, moreover, has developed only at a price, namely moral discontent or even better, moral anguish. This is something that Sigmund Freud noted with perception, for he observed that no animal other than the human suffers the " discontents " or pains of civilization. Here it is instructive to note that he went on to say that

it is impossible to ignore the extent to which civilization is built upon the renunciation of instinctual gratifications. . . . It is not easy to understand how it can become possible for man to withhold satisfaction from an instinct. . . . But while the intellect is weak in comparison with instinct, while its voice is soft as compared to the clamorings of instinct, it does not rest until it has gained a hearing. Ultimately, after several endlessly repeated rebuffs, it succeeds.[35]

Freud is saying, in other words, that human civilization or human culture is inexplicable unless we can account for the human capacity to renounce instinctive gratification, a capacity that entails anguish and moral discontent. He is pointing to the same unique characteristic of human existence to which Lady Jane was referring when she contrasted the amoral character of simian existence with the moral character of human existence. Freud, moreover, indicates that there is a relationship between the uniquely human capacity to build a civilization by the renunciation of instinctual gratification for moral reasons and human intelligence. Let us now look more deeply into this matter.

Today we commonly speak about " intelligence " both in hu-

[34] Jane Van-Lewyick Goodall, *In the Shadow of Man* (New York: Knopf, 1971), p. 244.

[35] Sigmund Freud, *Civilization and Its Discontents,* translated by J. Riviere (New York: 1930), p. 63. See chapter III, *passim.*

man beings and in other animals. And there is no reason what-soever to doubt that animals other than men " think," if by thinking is meant the ability to learn from experience, to gen-eralize, to discriminate, to solve problems by trial and error and even to make inductive inferences from empirically learned cues. With Mortimer Adler and others I propose that we call this kind of thinking " perceptual thought." [36] Thinking per-ceptually is an activity that human animals share with many other kinds of animals and is the kind of thinking that Aquinas attributed to the *vis aestimativa*, a sensory power.[37]

Perceptual thinking is operative in human and non-human *learning*, particularly with respect to behavior, and it has, I believe, been accounted for quite adequately by contemporary behavioral scientists. Much animal behavior is, of course, the result of instinctive drives and instinctive patterns of opera-tion, but a great deal of animal behavior (including the be-havior of human animals) is learned, and the learning involved can be accounted for by theories of conditioning. A somewhat standard explanation is provided by Jack Michael and Lee Meyerson in an illuminating essay entitled "A Behavioral Ap-proach to Human Control." In it they write as follows:

To produce new behavior . . . or behavior that has not appeared in the response repertoire before, it is sufficient to selectively reinforce one of the variations in the topography which resulted from the previous reinforcement, while allowing the other variations to ex-tinguish. This has the effect of producing a further class of varia-tions from which one may again differentially reinforce some and allow others to extinguish and so on. . . . This procedure for pro-ducing new behavior is called *shaping*. It is the technique which animal trainers use to produce unusual and entertaining behaviors in their subjects. . . . By skilled use of the procedures of reinforce-ment and extinction, we can bring about the more precise type of

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[36] On the distinction between perceptual thought and conceptual thought see Adler, *op. cit.* pp. 136-137, pp. 156-157. Adler's presentation is quite lucid, but I believe that he does not adequately account for perceptual *memory* in nonhuman animals.

[37] On the *vis aestimativa* in animals other than man and the *vis cogitativa*, a sensory power in human animals that performs the functions of the *vis aestimativa* in subhuman animals, see *Summa Theol.*, I, q. 78, a. 4.

stimulus control that is called *discrimination.* . . . If in the presence of a stimulus a response is reinforced, and in the absence of this stimulus it is extinguished, the stimulus will control the probability of the response in a high degree. Such a stimulus is called a *discriminative stimulus.* Although part of the educational process involves extensive shaping, particularly for motor skills, the educator's major efforts are directed toward the development of *discriminative repertoires,* or in more common terminology, knowledge.[38]

Michael, Meyerson, and their more famous fellow behaviorist, B. F. Skinner, would, of course explain *all* human morality in terms of learned behavior brought about by the skilled use of reinforcement, extinction, and discriminative stimuli.[39] And there is absolutely no question that behavioral conditioning with its resultant learning (in turn explicable through the activity of perceptual thinking) plays a large role in human moral development. We teach children " right " and " wrong " behavior by conditioning their lives, by " reinforcing " their behavior when it is " right " (e. g., when little Susie allows her younger sister to play with her doll) and by " extinguishing " it when it is " wrong " (e. g., when seven-year-old Patrick jabs his little sister with a fork at suppertime.) (We might also teach our children that it is " wrong " to play with black children or that it is " right " to cheat on an income tax return, and they would thus learn that these deeds are " wrong " and " right ".) The teaching and learning proper to this mode of shaping behavior can indeed be explained in terms of perceptual thinking, that is, the ability to recognize the kind of thing a perceived object is,[40] namely an item of observable behavior that is either

[38] Jack Michael and Lee Meyerson. "A Behavioral Approach to Human Control," in *Control of Human Behavior,* edited by Roger Ulrich, Thomas Stachnik, and John Mabry (Boston: Scott, Foresman, 1966), p. 26.

[39] E. g. Michael and Meyerson state that " it is necessary to understand at the outset that the familiar characterization of behavior as a function of the interaction of hereditary and environmental variables is accepted, not with the lip service that is sometimes given before fleeing to hypothetical constructs of inner behavior determiners that are neither heredity nor environment, but with utmost seriousness " (*art. cit.,* p. 23).

[40] On this see Adler, *op. cit.,* pp. 136-137.

rewarded or punished; it is evident, moreover, from the ethnological studies of Lady Goodall and others that learning of this kind is highly developed in chimpanzees and in other animals remarkably similar to the human animal.

Yet the meaning of human existence as a *moral* existence cannot be explained adequately in terms of learned patterns of behavior, deemed " right " and " wrong," induced by conditioning and explicable in terms of perceptual thought. Here empirical research is once more critically illuminating, particularly, in my judgment, in the work of the developmental psychologist Lawrence Kohlberg. Kohlberg has centered his work on the study of the development of moral judgment from early adolescence through young manhood. As a result he believes that there are three major levels, each divided into two stages, in the development of moral judgment. These are (1) the preconventional level, (2) the conventional level, and (3) the post-conventional, autonomous, or principled level. What is most striking for our purposes here is the description that Kohlberg provides of the first four stages of moral growth, the stages comprising what he terms the preconventional and conventional levels. During the first two stages of moral development " the child," Kohlberg writes, " is responsive to cultural rules and labels of good and bad, right or wrong, but interprets these labels in terms of either the physical or the hedonistic consequences of action . . . or in terms of the physical power of those who enunciate the rules and labels." [41] During the third stage of what he terms the

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[41] Lawrence Kohlberg, " Stages in Moral Development as a Basis for Moral Education," in *Moral Education: Interdisciplinary Approaches*, edited by C. M. Beck, B. S. Crittenden, and E. V. Sullivan (New York: Paulist, 1971), p. 86. Kohlberg's work, I believe, is quite significant for the ethicist and for illuminating the notions of moral principles. But some cautionary words are in order. Kohlberg terms his position a " cognitive developmental " position. But he qualifies the meaning of " cognitive " quite carefully. He is evidently working out of the context provided by twentieth-century Anglo-American moral philosophy, and he is anxious to reject the emotivism of Ayer and Stevenson, the intuitionism of Moore, and any kind of descriptivistic naturalistic positions. In characterizing his own position as " cognitive," Kohlberg distinguishes it from the " cognitive " positions of Moore and

" good boy-nice girl " period and during the fourth stage when the maintenance of authority and the social order is paramount, " moral value resides in maintaining the conventional order and the expectancies of others." [42] We might say that during these periods of our development as human beings our activities are not so much self-determined and self-controlled as they are governed by factors external to ourselves. The morality according to which we live is in Jean Piaget's terms " heteronomous " rather than " autonomous." [43] During these stages of our lives our "judgments", or better "perceptions", of "right" and " wrong " can surely be explained basically long the lines of a behavioristic conditioning and perceptual thinking. (A Freudian, as opposed to a behaviorist, could explain our moral " judgments " during this stage of human development in terms of the " superego." [44])

But there is far more to our moral existence than this. And here again the work of Kohlberg is significant.[45] For one thing

Dewey, which he calls " descriptivistic." He further characterizes his own position as " prescriptivistic," and it is apparent that in providing a theoretical framework for interpreting his empirical studies he has been strongly influenced by R. M. Hare. Metaethically Hare's " prescriptivism," which Kohlberg endorses, is " noncognitive," and to this extent the position that Kohlberg himself advances is " noncognitive; " indeed, for him ultimately one cannot *know* that it is better to be moral than immoral or amoral, one can only *choose* this kind of a life style. It is important, I believe, to be aware of this aspect of Kohlberg's work in interpreting it and attempting to utilize it in moral education.

[42] *Ibid.*, p. 87.

[43] See Jean Piaget, *The Moral Judgment of th Child* (New York: Free Press, 1964).

[44] For a study of the Freudian superego, conscience, and an interpretation of Kohlberg's thought on the interrelationship between these and the meaning of natural law see my " The Natural Law, Conscience, and Developmental Psychology," *Communio* 2, 1 (Spring, 1975), pp. 3-31.

[45] Human experience as reflected in everyday life and in great literature is also quite pertinent here. Our moral life is not simply a matter of making judgments about " right " and " wrong." It is ultimately concerned with our identity as conscientious subjects, as beings capable of developing virtues and vices as well as good and bad habits. We can become habituated to certain modes of behavior, including certain ways of judging actions, as a result of conditioning. But the conditioning of a human being so that he acquires a " good " habit is quite different from the development of a moral virtue. Virtue springs from *within*, from a

Kohlberg concluded, as a consequence of his empirical research, that ethical relativism, or the position that moral values and appraisals of right and wrong are entirely relative to the culture in which a person lives, is erroneous. He maintains that although not all values (goods) are universal, some " basic moral values are universal." [46] In all the societies that he has examined and at all the levels of moral development to which reference has already been made there are operative universal goods or values (e. g., life itself, justice, the welfare of individuals and groups). These values or goods *are* transcultural and universal. They are recognized by all people everywhere as worthwhile, valuable, good. But human beings disagree in their moral appraisals, according to Kohlberg, because they *conceive* or *understand* these real goods or values differently; and moral development, at least from the perspective of developmental psychology, is to be explained principally in terms of an ever deeper (and implicitly " truer ") understanding of the meaning of these real values or goods that function as choiceworthy purposes of human activity, or what Kohlberg himself terms " universal modes of choosing." [47]

Note that Kohlberg attributes advancement, growth, development in moral life to an advance in the human *understanding* of the *meaning* of the real goods or values that function as choiceworthy purposes of human activity. There is, in other words, a *cognitive core* operative in human moral development. The human animal, in addition to learning modes of behavior through conditioning that can be explained in terms of perceptual thinking, can come to an understanding of the meaning of that behavior and make judgments about the appropriateness or fittingness or justice of that behavior. Human morality,

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willingness to recognize the truth and to act in accordance with a true understanding of our lives and an *unwillingness* to hide from the truth or to act contrary to our own true understanding of our lives. It is for this reason that *caritas* or *agape* is the " soul " or " form " of all the virtues. On this see Thomas Aquinas, *Summa Theol.*, II-II, q. 23, a. 8. See also Stanley Hauerwas, *Character and the Christian Life* (San Antonio: Trinity University, 1974).

[46] Kohlberg, *art. cit.*, p. 41.
[47] *Ibid.*, p. 58.

in other words, is incapable of being explained unless human beings have the capacity or ability to perform acts of understanding and judgment. Such acts, moreover, require a mode of thinking that transcends the level of perceptual thinking and that traditionally has been termed *conceptual thinking*. Consequently some brief reflections on the nature of conceptual thinking are pertinent, and in making them I shall draw on the work of Mortimer Adler, inasmuch as he admirably expresses the difference between perceptual and conceptual thinking and the significance of this difference.

Perceptual thought, as noted already, is something that the human animal shares with other animals, with chimpanzees and baboons and others who do *not*, like the human animal, give any evidence of morality. A percept, the "mental" or psychological construct that makes perceptual thought possible, is, as already indicated, an acquired disposition or learned ability to recognize the kind of thing a perceived object is—an ant, a dog, a rabbit, an observable mode of behavior that issues either in pain or in pleasure. A concept, on the other hand, is an acquired disposition or learned ability to *understand what that kind of thing that one can recognize through an act of perception is like*.[48]

Further to distinguish betwen percepts and concepts Adler points out that a word, in itself a meaningless physical mark or sound, acquires its denotative and connotative meaning enabling it to serve as a *designator* (pointing to a concept in the mind) and not as a mere signal (pointing to a neuronal state of affairs in the brain) *not* from the perceived object itself (otherwise why would different words such as *poodle, dog, animal* all be used to designate the same object?) "but from the whole class of objects to particular instances of which it is applied as a name."[49] Since a *class* of objects is not itself an object of perception—for all that we can perceive is a particular object or instance of a class—the ability to understand what

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[48] Adler, *op. cit.*, p. 156.
[49] *Ibid.*, p. 185.

a class is involves more than the ability to recognize that a particular instance of that class is an instance of that class. In other words, the designative or conceptual meaning of our common names cannot be explained by reference to any factor or construct within the reach of our perceptual powers. In short, " common or general names that function as designators of perceived objects but have different connotative and denotative significance as designators, get their different meanings from the perceived objects *according as these objects are differently conceived.*" [50] In addition, our concepts refer to realities that are not perceptible at all, for instance justice, loyalty, truth, sacrificial love.

Because human beings have the power of conceptual thought they have the ability to utter propositions that can be true or false, to make judgments about the truth or falsity of those propositions in the light of relevant evidence and arguments, and to come to an understanding of the meaning of their lives as moral beings. It is this mode of intelligence that accounts for the pains and discontents that human animals experience in developing civilization and in living together.

The power of conceptual thought, moreover, argues to the presence, within the human animal, of an immaterial principle, of *ruach, pneuma, anima subsistens, Geist, memoire* or whatever one wishes to term that element within the entitative constitution of the human animal making it possible for him to become a moral being. Why? The basic argument is simply that the power of conceptual thought cannot be accounted for in terms of material reality or in terms of neuronal changes occurring in the brain. As Adler expresses it, the argument

hinges on two propositions. The first proposition asserts that the concepts whereby we understand what different kinds of classes of things are like consist in meanings or intentions that are universal. The second proposition asserts that nothing that exists physically is actually universal; anything that is embodied in matter exists as an individual and as such it can be a particular instance of this

[50] *Ibid.*

class or that. From these two propositions, the conclusion follows that our concepts must be immaterial. If they were acts of a bodily organ such as the brain, they would exist in matter, and so would be individual. But they are universal. Hence they do not and cannot exist in matter, and the power of conceptual thought by which we form and use concepts must be an immaterial power, i. e., one the acts of which are not the acts of a bodily organ.[51]

It is because the human animal is radically capable of conceptual thought—and by this I mean that this animal is capable of conceptual thought because of a power rooted in its entitative constitution—that human beings develop into moral, minded entities. The moral anguish that human beings experience cannot be explained in terms of perceptual thought. The basic reasons why human beings refuse to do certain deeds are not the painful or pleasurable consequences that result from their doing, although I by no means wish to deny that consequentialistic considerations (which in essence are explicable in terms of perceptual thinking) are not operative in our moral lives. But the basic reason why a human being can, will, and ought to refrain from doing certain deeds (even though a human being can and may and indeed frequently will do these deeds) is his understanding of the meaning of the behavior in question and his unwillingness to take on the identity of a being who is willing to do this kind of deed. To clarify this with an example: I am a father, and I do not know, nor does anyone know, precisely and definitively what it means to be a father. But I do know that there are certain kinds of deeds that cannot possibly count as expressions of fatherhood. When an infant, for example, rouses me from my sleep, I know that it would be unfatherly (wrong) for me to express my irritation on being awakened by plunging a diaper pin into that infant's buttocks in order to get even with it for disturbing my slumbers. I can, of course, do this deed, and for all anyone knows I may actually have done it. And I can, of course, refrain from doing it because of a realization of unwanted consequences, for instance the wrath of my wife, the screaming of the infant, the

[51] *Ibid.*, pp. 220-221.

possibility of incarceration, considerations that are seemingly operative in regulating the behavior of the chimpanzees with whom Lady Goodall lived. But I (and other fathers) can refrain from acting in this manner because of an understanding of the meaning of this kind of act, of a judgment that to be willing to do this deed is to be willing to take on, as part of my moral identity, the identity of a child abuser, and an unwillingness to make myself become this kind of human being.

And there is even more to man's moral life that argues to the presence of an immaterial principle within his entitative makeup, namely self-sacrificial love. Animals other than men frequently manifest great affection for their offspring and kind, and even for animals of other species. Dogs frequently give up their lives for their masters. But a dog, or any other animal other than man, will either fight or flee when attacked, when it is, for example, kicked in the groin. Human animals, of course, manifest the same kind of behavior when they are attacked. But they also manifest an utterly different type of behavior, for the human animal is capable of reaching out to its enemy in love, of returning good for ill. To turn the other cheek, to be willing to accept suffering an injustice rather than to inflict one, and in particular to be willing to affirm the existence of a human being who is bent on one's own destruction and who delights in witnessing one's own misery are all actions of which human beings are capable. They demand, in order for them to be understood, not only the power of conceptual thought but the capacity for self-determination through acts of choice that have as their proper and principal cause the human " self." Human beings are capable of love, and of a love that is not only erotic and philiac but agapeic or self-sacrificial, rooted in a willingness to give of oneself and to sacrifice one's own legitimate needs and goods rather than, in preserving them, betray a moral commitment, perhaps inflict suffering on another, or blaspheme God.

Human beings are indeed capable of such activities, and we must therefore seek to understand the antecedent conditions making these activities possible. As Roderick Chisholm and

others have argued,[52] and in my judgment convincingly and demonstratively, human freedom of self-determination and human agapeic love are inexplicable unless we are ready to admit that within the human animal is present an element that utterly transcends the physical. Indeed, the dynamism that moves human beings to raise what Bernard Lonergan terms " transcendental questions " and pushes us on to know more and more about what we already know—our pure desire for unlimited knowledge—is inexplicable if one existentially identifies the physical organ of the brain with the mind. And this dynamism, " far from being the product of cultural advance, is the condition of its possibility." [53]

The writer of these pages is a human being who has become a moral being and a minded entity, as are those human beings who may happen to read them. My being a minded entity, a moral being, and your being minded entities and moral beings require as *necessary but insufficient conditions* the possession of a brain of a certain degree of complexification and the existence of a cultural environment. But our being minded entities and moral beings cannot be sufficiently explained in terms of these indispensable conditions. An adequate explanation for our being minded and moral demands that we infer the presence, *within our being as humans,* of an entitative com-

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[52] Roderick M. Chisholm, " Responsibility and Avoidability," in *Determinism and Freedom in the Age of Modern Science,* edited by Sidney Hook (New York: New York University Press, 1960), pp. 145-147.

[53] Bernard Lonergan, *Method in Theology* (New York: Herder and Herder, 1972), p. 12. Lonergan's entire thought, as set forth in his principal study, *Insight* (New York: Philosophical Library, 1957), centers on the meaning of human existence as an inquiring existence, as the existence of a being who is at root a pure desire to know. His thought here is not dissimilar from that of Karl Rahner (and there is no cause for surprise at this, inasmuch as both are representatives of contemporary " Transcendental Thomism " and thus derive much of their inspiration from the work of Aquinas). A convenient anthology of Rahner's works, entitled *A Rahner Reader,* edited by Gerald McCool (New York: Seabury, 1975) has just been released. The initial two chapters of this anthology, in particular, provide the Rahnerian texts that develop the idea that a human being is a being in itself open to transcendence, a " question become conscious of itself," and hence capable of being personally related to *Ipsum Esse Subsistens,* to God.

ponent that is the antecedent condition for the possibility of our becoming minded and moral. And that component, which is ours in virtue of our being the *kind of beings* that we are to begin with, namely human beings, members of the human species, is a nonempirical, nonobservable, yet rationally inferable and real component of our humanity. It is in virtue of this component that we are the kind of beings that we are and that we are beings of moral worth, images of God. Membership in the human species, in other words, *is* a morally significant fact simply because human animals are a different kind of animal from other animals. It is for this reason that every human being, every member of the human species is a being of moral worth, the bearer of rights that are inalienable and that demand respect and protection by human societies.

We were led to a consideration of this question—what makes a human being to be a being of moral worth?—by reflecting on the abortion controversy. I want to end the discussion by returning to that controversy and reflecting on its significance for our lives as moral beings and beings of moral worth.

As the abortion controversy makes evident, not all members of the human species are in fact personal subjects, minded entities, moral agents, in the sense that not all members of the human species are enduring subjects of experience, aware of themselves as enduring subjects of experience, and capable of relating to other such subjects. As a matter of fact, not one of us who is now such a subject was such a subject for a considerable period of our individual existence. There is an identity and a continuity *in being* between us at this moment of our existence and all of those moments of our existence, including those during which we were not minded and moral subjects, from the beginning of our existence. We were able to develop into minded and moral subjects *radically* in virtue of our being members of the human species, in virtue of being the kind of beings that we are, namely human beings. But we could never have become what we are today had it not been for the existence of other human beings. We did not, in other words, pull ourselves up by our own bootshaps, nor has any human being.

In order for us to develop into minded and moral subjects we needed a " boot " to which our straps could be attached, and that boot is the human community.

What this shows, I believe, is that our existence as minded and moral beings (as personal subjects) is in the nature of a gift. Human existence, as a personal existence, is inescapably and necessarily a *co-existence*. To be human in the sense that to be human means being personal is to exist *with* other human beings and *by leave of* other human beings. Personhood, thus, is a gift. Ultimately it is a gift that we receive from the One who is our Father and Friend, our Mother and Lover, God. Proximately it is a gift that each of us received from other human beings. It is a gift that we receive, directly and immediately, from the parents who conceived us in an act that was at the very same time, one hopes, an act expressive of the love they had for one another.

Indeed, what this shows is that our existence as human beings is in the nature of a covenant. To be a human being is not only to exist *with* other human beings; it is to exist *for* other human beings. Nor ought this, for one who professes the Christian faith, to be surprising. For as human beings we are the living ikons or created words of a loving God, who is a being not only wholly other than us, not only above us, but also with us and for us: an Emmanuel, a God who othered himself in the non-divine by Himself becoming, in the person of his Uncreated Word, perfectly one with us, his created words.

Seen from this perspective, abortion as an act that expresses our unwillingness to let a fellow member of the human species be, is a rupturing of the covenant that can and ought to exist in and among human beings and between human beings and God. It is a deed that makes nuanced distinctions among members of the human species, deeming some not to be what they really are: beings of moral worth, bearers of a sanctity that is theirs by participation and not by nature.

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WISDOM AND BEING IN ARISTOTLE'S FIRST
PHILOSOPHY

 formula

1) "THERE IS A Science (ἐπιστήμη) which theorizes (θεωρεῖ) being as being (ὅν ᾖ ὅν) . . . ,"[1] says Aristotle. In this formula Aristotle not only gives the classic formula of ontology but also states the fundamental intention of his own first philosophy (πρωτὴ φιλοσοφία) .[2] Having bluntly asserted the facticity of ontology, he immediately distinguishes this science from the so-called special sciences which cut off a part of being and treat only it, whereas the science here claimed treats universally of being, simply as being.[3]

Before we follow Aristotle in his search for ontology, it is necessary for us to ask how he characterizes *this* particular science which is other than the special sciences. We know the intention of this science differs from that of the particular sciences. But what about the science itself? Is it characterized in a special way? If so, how? Such an investigation seems to be a wholly proper beginning to the understanding of ontology, i. e., the intention of 'first philosophy,' for it should uncover the terms or the concepts which provide the architectonic the investigation assumes. Furthermore, Aristotle himself enters the problematic of 'first philosophy' by investigating the science of the philosopher.[4]

2) Book A of *Metaphysics* opens with a discussion of the

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[1] *Metaphysics*, 1003a20.

[2] Cf. N. Hartman, *Zur Grundlegung der Ontologie* (Berlin: Walter De Gruyter, 1965), p. 38. "Aristotle is entirely correct in understanding his 'first philosophy' as the science of being qua being." (Translation mine).

[3] *Meta.*, 1003a23-24.

[4] The three books preceding the above quotation are chiefly concerned with defining Wisdom and its aim.

various species of knowledge, e. g., sensation, memory, art.[5] Wisdom (σοφία) depends in all cases on knowledge; thus Wisdom too is a species.[6] However, Wisdom is a uniquely important and differentiated species of knowledge, for it tells the ' why ' of anything and for Aristotle truly knowing means grasping the ' why ' of things.[7] Elsewhere Aristotle has said that " scientific knowledge is of things that are universal and necessary." [8] If the ' why ' of things are the universal and necessary causes, then Wisdom must be scientific knowledge. Indeed, says Aristotle, " all men suppose that what is called Wisdom deals with the first causes (πρωτή αἰτία) and principles (ἀρχή) [i. e., the ' why '] of things." [9] Furthermore, Wisdom is yet even more unique, i. e., it deals with *first* causes. " Clearly, then, Wisdom is knowledge about certain [i.e ., first] principles and causes." [10]

Having discovered that we seek certain causes and principles, " we must inquire of what kind are the causes and the principles, the knowledge of which is Wisdom." [11] In order to determine the kinds of principles which concern Wisdom, Aristotle examines the characteristics of the wise man and finds the following. The wise man has knowledge as far as possible of all things; he can learn the most difficult, i. e., notions most removed from sensory perception; he is more exact and capable of teaching; he has science for its own sake; he has superior knowledge, for the wise man should order and be followed.[12]

From the characteristic of the wise man, it can be seen that Wisdom " must belong to him who has in the highest degree universal knowledge." [13] Thus it can be said that the scientific knowledge of the most universal is Wisdom, for it is the science of all things since all things in a sense fall under the universal.

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[5] *Meta.*, 980a20-981b10.
[6] *Ibid.*, 981a26.
[7] *Ibid.*, 981b11; *Physics*, 194b18-20.
[8] *Nicomachean Ethics*, 1141b31.
[9] *Meta.*, 981b27.
[10] *Ibid.*, 982a1.
[11] *Ibid.*, 982a5-6.
[12] *Ibid.*, 982a8-19.
[13] *Ibid.*, 982a21.

Wisdom is the most difficult science since the universal is the farthest from the particulars of the senses. It is the most accurate since fewer principles make a science more exact, and it is the most instructive since knowing the highest cause is most instructive. It is science for its own sake since it is most knowable and truly knowledge as there is nothing above it. Hence it is also the most superior since it is by reason of it that everything else comes to be known.[14]

In this manner, Aristotle satisfies himself that the science he calls Wisdom meets all the standards of the wise man.[15] Furthermore, Wisdom is identified with the good, the end, i. e., the highest and most universal principles; therefore, Wisdom is a divine science and deals with divine objects, for the Divine is thought to be among the causes of all and a first principle.[16] Although this identification will be of considerable importance later in the present interpretation, for now we must only mention it as a characteristic Aristotle assigns to Wisdom.

Another characterization of Wisdom is that of wonder. Indeed " it is through wonder that men both now begin and at first began to philosophize." [17] This experience of wonder and puzzlement causes men embarrassment over their own ignorance, and they are gripped by a passion to know which forces them to philosophize, to know more and more, indeed, until they know the ultimate causes, i. e., the ' why ' is answered.[18] Men encounter problems (ἀπορίαι), less of the practical sort of query than a puzzlement as to the ' why ' of things, and the free science which seeks the origin of this puzzlement is Wisdom.

Already in the first two chapters of the first Book of ' first philosophy ' we have learned " what is the nature (ἡ φύσις) of the science (ἐπιστήμη) we are seeking, and what is the goal which our search and our whole investigation must achieve." [19]

[14] Ibid., 982a22-982b4.
[15] Ibid., 982b7-10.
[16] Ibid., 982b25-983a20; cf. N. E., 1141a16-19.
[17] Meta., 982b14.
[18] Ibid., 982b14-27.
[19] Ibid., 983a22-23.

It is worth noting here that Wisdom is referred to as the science or knowledge (ἐπιστήμη) ' we are seeking,'[20] and this characterization will again be of importance later in the present interpretation. Furthermore, we now know Wisdom is concerned with the highest causes, the end, the good and the divine; we know, therefore, from the beginning of the treatise on ' first philosophy ' that Aristotle recognizes that he is engaged at the highest level of thought and most profound depths of reality.

3) Now that we understand the tasks and goals of Wisdom, i. e., ' the science sought,' it is necessary to examine the terms or concepts which establish the architectonic that Aristotle finds essential for his problematic. " Evidently we must attain knowledge of the original causes (ἀρχῆς αἰτίων) . . . and causes are spoken of in four senses."[21] The four causes, or four senses of cause, will be the architectonic of Wisdom. We must now turn to these four causes which will form the structure in which Aristotle pursues Wisdom.

Claiming to have studied the causes sufficiently in the treatise on Nature qua Nature,[22] he only briefly states them in the ' first philosophy,'[23] We should note that in the Physics the reason he introduced the notion of the four senses of cause is to account for the coming-to-be and passing-away of things in Nature: in the Metaphysics he resumes the same notion but here the intention is not to explain Nature qua Nature.

The four senses of cause as given in the Metaphysics are as follows. Since the ' why ' is reducible to its formula (λόγος), the first sense of cause is substance (οὐσία) or the-what-it-was-to-be (τὸ τί ἦν εἶναι), and this sense is traditionally called called the formal cause. Another sense is the matter (ὕλη) or substrate (ὑποκείμενον), which is traditionally named material cause. The third sense of cause is the source of change (ἡ ἀρχη

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[20] Regarding further references to Wisdom as ' science sought,' cf. ibid., A, 1 & 2; B, 1 & 2; Z, 1; Γ, 1; K, 1.

[21] Ibid., 983a24-25.

[22] Physics, II., 3, 7.

[23] Meta., 983b1-2.

τῆς κινήσεως), i. e., the efficient cause. And last there is the so-called final cause, i. e., the end (τέλος), the for-sake-of (τὸ οὗ ἕνεκα), or the good (τἀγαθόν).[24]

The remainder of Book A consists of Aristotle's investigation of his predecessors, an account which he deems important, "For obviously they too speak of certain principles and causes; to go over their views, then, will be of profit to the present inquiry, for we shall either find another kind of cause, or be more convinced of the correctness of those which we now maintain."[25] Obviously he reads them in his own terms, i. e., regarding an etiology, and it is not surprising that he concludes that none other than his own four senses can be named.[26]

The reading of his own past convinces Aristotle all the more to the soundness of his own view, i. e., the science called Wisdom is to be pursued within an etiological structure. Since there is no evidence to the contrary in either of the following Books, α or B, we can conclude that in Book Γ, when announcing the ontological formula, he is thinking of this science on the etiological model. Book B is the "book of problems" (ἀπορίαι) and merely recounts the subjects to be discussed: since the central themes of the *Metaphysics* will be treated later, we shall not examine this book.[27] Several passages in Book α, however, suggest further interpretation concerning "the science we are seeking," and we shall attend to these prior to returning to the ontological announcement wherein we will investigate the subject matter of 'first philosophy.'

4) We are reassured in the second chapter of this book that there are not an infinite number of causes and that we can know the first principle and causes.[28] There are two examples of Aristotle's justification of his position which interest us here.

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[24] *Ibid.,* 983a26-983b1.

[25] *Ibid.,* 983b3-7 (Ross's translation).

[26] *Ibid.,* 993a11-12.

[27] Aristotle refers to as 'problems,' *Ibid.,* 1003a39: cf. W. Jaeger, *Aristotle* (Oxford: Oxford University Press, 1967), p. 197 ff. Jaeger maintains this book belongs to an early version of 'first philosophy' which does not seriously contribute to the later study of οὐσία.

[28] *Meta.,* Book α, ch. 2.

If there were no final cause (τέλος), " there would be no reason (νοῦς) in the world," which is impossible because reasonable men always act for a purpose.[29] Like the determination of Wisdom by the standards of the wise man, here again Aristotle turns to the given fact, i. e., reasonable men *do* act for a purpose, to prove there *is* reason (νοῦς), i. e., in this case etiological explanations, in the world, and this in turn justifies the search for *final cause*. Furthermore, we can be assured that there are formal causes (τὸ τί ἦν ἐιναι): we *could* deny this ultimate definition, but " those who speak thus destroy science; for it is not possible to have this until one comes to the unanalyzable terms [which is to say the formal cause] and knowledge becomes impossible. . . ."[30] Again, that science *is* is a given, and since this would be impossible without ultimate formula, there must be a formal cause.

We know, then, that there is a science of the ultimate principle because men *do* philosophize. " It is right also that philosophy should be called science of the truth (ἐπιστήμη τῆς ἀληθεάς). For the end (τέλος) of theoretical science (θεορητικῆς) is truth (ἀλήθεια)."[31] We here learn that philosophy, i. e., theoretical science, is the science of truth, and truth is the end or final cause of philosophy. In the next line, Aristotle distinguishes the end of philosophy (ἀλήθεια) from the end of practical knowledge (πρακτικῆς).[32] Thus, we find confirmed the fact that philosophy is a different sort of thinking activity than other thinking activities, e. g., practical knowledge. Furthermore, truth as the final cause of philosophy distinguishes it from the other kinds of knowledge. However, we must be careful on this point, for this passage occurs in a section which is a general discussion of truth;[33] therefore, we need to attend to this discussion in more detail.[34]

[29] *Ibid.,* 994b8-16.

[30] *Ibid.,* 994b18022: in this entire section there is strong suggestion of these two causes' coalescence, but we shall attend to this later.

[31] *Ibid.,* 993b19-20.

[32] *Ibid.,* 993b20-23.

[33] *Ibid.,* Book α, ch. 1.

[34] In the ensuing exposition we shall have recourse to interpretative materials,

5) Three points concerning truth stand out in the paragraph following the above quotation: (i) We do not know the truth without the cause; (ii) There are derivative truths which are caused by the most true; (iii) As it is with the being (τοῦ εἶναι) of a thing, so it is with the truth of that thing.[35]

(i) The claim that truth requires knowledge of the cause is rather demanding in light of what we have already learned, viz., etiology is the grasp of the ' why ' and this is theoretical knowledge called Wisdom. And Aristotle has just told us that " it is right that philosophy should be called the science of the truth." [36] It would seem, then, that Aristotle is distinguishing the philosopher's mode of knowledge, viz., theoretical science (θεωρητικὴ ἐπιστήμη), from that of ordinary men, for the philosopher grasps the ' why ' which is the only true knowledge. Aristotle definitely conceives of the life and activity of the philosopher as distinct from that of other men.[37] But the question is just how radically different is the philosopher's science and knowledge? Do ordinary men completely lack truth? We shall now turn to the second point concerning truth where this problem will again be present.

(ii) To understand how there are derivative truths which are caused by the most true, we must first recall Aristotle's idea of science and Wisdom. Earlier we found that science is concerned with principles and causes, and Wisdom as a kind of science treats ' certain ' causes and principles.[38] We know further that science as knowledge of causes grasps the universals and the necessary, i. e., an object of scientific knowledge necessarily, hence eternally, exists.[39] Yet there is a decisive differenti-

discussions, and quotations, located elsewhere in the *corpus Aristotelicum*. These excursions outside Book *a* are necessary for a fuller understanding of this text, and at the same time will bring the problem of the characterization of Wisdom as ' first philosophy ' into sharper focus.

[35] *Meta.,* 993b22-30.

[36] *Ibid.,* 993b19.

[37] *Cf. N. E.,* 1139b18; 1141a3; 1177a12-14; 1097b23ff.; 1141a9ff. *Meta.,* 981b26ff.; 982a5ff.; 982a16ff.; 982b27ff.; 1072b18ff.; 1074b15ff.

[38] Cf. section 2 of this paper.

[39] *N. E.,* 1139b24.

ation between science ' as such ' and Wisdom, though both are, to be sure, theoretical. Scientific knowledge has as its task demonstration (ἀπόδειξις) of certain truths.[40] Theoretical science ' as such ' is, then, an apodictic activity; it treats the universal and necessary insofar as it deduces from them or demonstrates by them.

Since theoretical science begins with principles and demonstrates truly (i. e., by correct judgments[41]) *from* them, the fundamental principle or starting point cannot itself be the object of this apodictic science:[42] "The starting point of demonstration is not demonstration."[43] Indeed, Aristotle asserts that those who demand demonstration of the starting point "seek rational account (λόγον) for things which have no rational account (οὐκ λόγος)."[44] Furthermore, such a demand for circular demonstration can easily be dissolved if one is honest and does not " seek merely compulsion in argument."[45] Aristotle discounts the importance of such a demand as sophistic, one which leads to the self-contradicting claims similar to those of Protagoras.[46] Furthermore, such demonstration leads to an infinite regress which is impossible.[47] But if all true knowledge, even in respect of demonstration, depends upon the ' first principles,' which themselves cannot be demonstrated, how is the philosopher to reach true knowledge both of the first principles and of the derived truths demonstrated from them? That there *is* a science of the ' first principles ' is, as we have seen, a given. What, then, can grasp this truth, which is even more truthful than scientific knowledge? Aristotle's unequivocal answer is: " It is νοῦς which apprehends ' first principles.' "[48] Since Wisdom

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[40] Ibid., 1141a2.

[41] Aristotle means here logic and syllogism. Cf. *Posterior Analytics* I, 1; *Prior Analytics* I, 1.

[42] *N. E.,* 1140b31-35.

[43] *Meta.,* 1011a14.

[44] *Ibid.,* 1011a13.

[45] *Ibid.,* 1011a16.

[46] *Ibid.,* 1011a15-1011b12; cf. 1007b18-22.

[47] *Ibid.,* 1006a7-12.

[48] *Post. An.,* 100b10; *N. E.,* 1141a8; νοῦς can be translated as intelligence, intuitive

is the grasp of first principles and highest causes as well as of what follows by demonstration, it follows that Wisdom is the union of νοῦς and science *qua* demonstration (ἡ φυσία νοῦς καὶ ἐπιστήμη).[49]

We now can see that the philosophic activity, i. e., Wisdom, discovers truth in two ways: by the immediate grasp of highest principles by νοῦς, and by the discovery of the truths derived therefrom by apodictic science. This epistemological characterization suggests the way in which to understand the most true and derived truths: surely the grasp of first principles is the grasp of the most true, while the demonstration therefrom is the apodictic scientific grasp of derived truths. However satisfying this analogy seems, we must still search further to adequately understand this important point. Aristotle's texts themselves certainly do not let the matter rest here; and in addition to the above-described two senses of truth, there are two very distinct operative definitions of truth (ἀλήθεια in both cases) at work in Aristotle's texts,[50] and we must attend to these prior to leaving this point.

One sense in which the concept of truth operates is the correct uniting in judgment, i. e., the judgment corresponds with things. In *De Interpretatione* this sense is described: truth and falsity imply combination and separation in order to bring the experiences of the soul into correspondence with things.[51] Further, Aristotle states " truth and falsity together depend on the allocation of a pair of contradictory judgments (for the true judgment affirms where the subject and predicate really are combined and denies where they are separated, while the false judgment has the opposite allocation . . .)." [52] Thus, he is here thinking of truth as correct judgment, and he can say " falsity

reason, mind, immediate apprehension, intellective-intuition. It will be left untranslated here, for no rendering seems adequate.

   [49] *N. E.*, 1149a19.

   [50] Cf. Werner Marx, *The Meaning of Aristotle's Ontology* (The Hague: Martinus Nijhoff, 1954), pp. 16-21. Cf. Werner Jaeger, *op. cit.*, pp. 204-5, 209. Cf. G. R. G. Mure, *Aristotle* (New York: Oxford University Press, 1964), pp. 205, 212-213.

   [51] *De Interpretatione* 16a2-18.

   [52] *Meta.*, 1027b19-22.

and truth are not in things . . . but in thought." [53] There lies latent in this discursive thinking synthetic truth, another meaning of truth: we can arrive at this latter sense best through an example of the former. Let us consider the following judgment: " You are pale." In this case we have a combination of subject and predicate in a judgment. On the ' correspondence theory ' this judgment is true because it conforms to the way you are, i. e., the thinking or judgment is true because you are pale. But Aristotle has something directly to say about this example. " It is not because we think truly that you are pale, that you *are* pale, but because you are pale we who say this have the truth." [54] The important point here is that Aristotle clearly places the emphasis of truth, even in synthetic judgments or discursive thinking, on the fact of the being of that about which judgments are made; thus, we must conclude that the correspondence sense of truth is not adequate to cover the intention of his understanding of truth as here expressed. Elsewhere in discussing this relationship, the Aristotelian text reveals something even more important regarding the point concerning truth we are trying to understand. He states:

The fact of the being of a man carries with it the truth of the proposition that he is, and the implication is reciprocal: for if a man is, the proposition wherein we allege that he is is true, and conversely, if the proposition wherein we allege that he is is true, then he is. The true proposition, however, is in no way the cause of the being of the man, but *the fact of the man's being does seem somehow to be the cause of the truth of the proposition. . . .*[55]

Thus we not only learn that the truth of the proposition rests upon the being or fact, but also we learn that the being somehow is the *cause* of the truth of the proposition. To be sure, the judgment can be said to be true, but the *cause* of this truth is the being of that about which it is a true judgment. That there is then a more fundamental sense of truth than that of true judgment cannot be denied, and we have seen Aristotle is well

[53] *Ibid.,* 1027b26.
[54] *Ibid.,* 1051b7 (translation by Ross).
[55] *Categories,* 14b14-20 (translation by E. M. Edghill: emphasis mine).

aware of this. Indeed, we may begin to suspect that somehow the being of the thing is the most true which causes derivative truths, viz. true judgments. However, we need to explore further if we are to understand the more fundamental sense of truth.

We have been examining the truth as grasped by theoretical science functioning as a discursive or demonstrative activity; it seems fair to name this mode of truth as synthetic. We also have seen that such truth derives from a more fundamental mode of truth which we shall call a-synthetic (ἀσύνθετα): it is this latter mode which we shall learn is grasped by νοῦς. Furthermore, the truth grasped by νοῦς we shall learn is the first principle upon which all demonstration depends. In order to gain an understanding of these points we shall begin by examining this first principle. The prior question, then, which now confronts us is none other than " What is this highest principle? "

Aristotle says, " The most certain principle of all is that regarding which it is impossible to be mistaken," [56] and it is a " principle which everyone necessarily has who understands things which are." [57] This first principle is the principle of non-contradiction, and is variously stated: " the same attribute cannot at the same time belong and not belong to the same subject and in the same respect . . . ; " [58] " It is impossible for anyone to believe the same thing to be and not to be. . . ." [59] We have claimed earlier that the highest truth is the foundation for the derived truths of apodictic science, i. e., the starting point for demonstration; thus, if this is the principle, the grasp of which is the highest truth, it too must be the starting point of all derived principles and the ultimate basis of demonstration. It is to precisely such an important role that Aristotle assigns this principle, and he says this principle cannot be demonstrated. [60] If it is νοῦς which grasps the first principle,

[56] *Meta.*, 1005b12.

[57] *Ibid.*, 1005b15.

[58] *Ibid.*, 1005b19-20.

[59] *Ibid.*, 1005b23: cf. 1006a1-3; 1061b35-1062a18.

[60] *Ibid.*, 1005b31-34; 1006a5-8.

then the science called Wisdom, i. e., the philosopher's ac-
tivity,[61] will certainly recognize it.

In the passage we are now examining,[62] the philosopher's
study is of beings qua being (τῶν ὄντων ᾗ ὄντα).[63] And he
whose subject is beings qua their being must state the first
principle of all things; thus, a task of the philosopher is to state
the first principle of beings qua their being.[64] We must, then,
admit that the first principle of demonstration is an ontological
principle, and the highest truth is somehow a grasp by νοῦς
of beings qua their being, and Wisdom is in a sense ontology.
The first principle, grasped by νοῦς, is the highest truth, and
though not grasped by demonstration, is present as the basis of
all demonstration.[65] We might re-formulate this entire affair
in more contemporary terms as follows. The first principle
grounds the apodictic science but is not comprehended by it;
rather, it is Wisdom as the grasp by νοῦς of the highest truth
which comprehends or unconceals the ground of apodictic
science, i.e ., it grasps the universal ground only assumed by
separate sciences; as the comprehension of the ground is the
unconcealment of the highest truth, it is a grasp of the first
principle of beings qua beings (τῶν ὄντων ᾗ ὄντα).[66]

The fundamental sense of truth which we set out to discover
can now be expressed in a traditional Greek sense. The first
principle, which is the ground of demonstration but not dis-
covered by demonstration, is revealed or un-concealed in νοῦς:
νοῦς un-concealing the first principle is truth in the highest
sense. Truth (ἀλήθεια) is etymologically understood as the
negation, signified by ἀ, of concealment or forgetfulness, sig-
nified by ληθεια. This is the traditional meaning of truth in
Pre-Socratic thought and it is alive in Aristotle.[67] Truth, in the

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[61] *N. E.,* 1141a16-20.
[62] *Meta.,* 1005b6-34.
[63] *Ibid.,* 1005b9-10.
[64] *Ibid.,* 1005b6-12.
[65] *Ibid.,* 1005a20-30.
[66] Cf. Mure, *op. cit.,* pp. 193-194, 221; Jaeger, *op. cit.,* p. 215.
[67] Cf. Martin Heidegger, *Being and Time* (New York: Harper and Row, 1962),
p. 268 ff.

fundamental sense, is unconcealment accomplished by the grasp by νοῦς of the basic principle which is hidden from, i. e., not discovered by, apodictic science, though it grounds this science. We might say this principle is operationally or functionally present in all discursive thinking so that in discovering derived truths, he whose activity is apodictic science has the highest truth present as ground of his science yet has not grasped the ground by νοῦς. In this sense ordinary men do not, indeed cannot, lack truth for they make use of it though are not aware of it, i. e., it remains in concealment (ληθεια) . The philosopher's grasp by νοῦς of this provides the ἀ-λήθεια and is in this sense radically different. As the first principle is operationally present in all derived principles, it in a sense is the cause of them; thus, the fundamental sense of truth is present in derived truths as in a sense a cause. We have now answered the questions raised in the discussion of point (i) of this section.

We must now attend to two questions arising from the preceding discussion of the first principles; viz. in wha. sense is the grasp of this principle a grasp of the being of beinₖs? And in what sense is it impossible to be mistaken in regard to this principle? The investigation leading to the answers for our questions will involve the discussion of our third point concerning truth.

(iii) If it is with the being of the thing as it is with the truth of the thing and there are basic and derived senses of truth, then it would follow that there must be basic and derived senses of being. According to Aristotle this is in fact the case:

There are several senses of the term being (τὸ ὄν) . . . . In the first sense being denotes the-what-it-is (τὸ τί ἐστι) or the this-ness (τό δε τι); in another sense it means a quality, quantity or some other categorial sense that is predicated as these are. While being has also these senses, certainly the primary meaning of being (πρώτων ὄν) is the-what-it-is (τὸ τί ἐστιν) which means categorially the substance (τὴν οὐσίαν) . . . . All the other categorial senses of being derive from (i. e., are said to be by virtue of) this category.[68]

[68] *Meta.*, 1028a10-20; cf. *ibid.*, Δ, 7; E, 2-4; K, 7-8.

Now we know that the categories form the basic structures of thought; it seems, therefore, that the categorial senses of being are the basic structures of being, at least insofar as these basic structures or senses are thought.[69] We are here provided with a clue for us to bring the question concerning point (iii) into sharper focus.

In the passage cited above we learn that the basic category, substance (οὐσία),[70] is the basic categorial sense of being (τὸ ὄν) and it denotes the-what-it-is (το τί ἐστι), i. e., the this-ness (τόδε τι), of a being or thing that is. Now the grasp of this basic category involves or is achieved through the first principle, i. e., the principle of non-contradition. We can understand this important fact in the following way. In grasping of the what-it-is (which necessarily involves some grasp of that-it-is)[71] one must grasp the this-ness, i. e., the uniqueness or individuality. Such a grasp involves at the same time both ' that since it-is, it cannot not-be ' and ' it is this and no other.' In other words, the grasp of the primary sense of being as the grasp of the-what-it-is excludes its not-being in the sense that it is and in the sense that it excludes its not-being by the grasp of its this-being (which excludes that-being). The first principle is functioning in such a grasp in its positive and negative senses. The thing is, thus is not not-being: the thing's is-ness means it is this and excludes what it is not.[72] A grasp of the primary sense of being through the first principle is obviously a grasp of an a-synthetic, i. e., a whole of an incomposite (ἀσύνθετα) ; we can see, then, that such a grasp must be accomplished by νοῦς and is the most fundamental sense of truth.

Further, as the primary sense of being, i. e., the basic or sub-

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[69] Some philosophers maintain Aristotle reduces ontology to categorical discussions. Cf. N. Hartmann, op. cit., p. 39. "Aristotle in his Metaphysics far too quickly restricted and played out the Being-question on particular questioning of certain categories. . . ."

[70] The relation of οὐσία and ὄν will be taken up later in this paper.

[71] Cf. Meta., 1025b19, ". . . the same thinking shows what it is and that it is." The sense in which actuality of the being is involved in its what-it-is will be taken up later in this paper.

[72] Meta., 1051b35-1052a2.

stantial category, the other senses are in virtue of it, i. e., the other categories are predicated of it. The derived senses are united with (form a synthetic whole with) the basic sense by predication, i. e., by synthetic judgments; therefore, the derived senses of being are in relation to the derived senses of truth. That is to say, by virtue of what-it-is, correct judgments involve a substance having, in fact, the senses of being predicated of it by the synthetic judgment uniting the secondary categories with the primary. In this way the basic sense of truth, i. e., the basic sense of being, the what-it-is, causes the truth of the derived senses. Consider our example given above: "You are pale." The judgment unites the category of quality, i. e., paleness, with the basic category of substance, i. e., the what-it-is which in its individuality is designated by you. The correctness of the judgment, i. e., a derived truth, is caused by the primary sense, the being of the subject; i. e., the-what-it-is of ' you ' admits of the predication ' paleness.' [73] We are led thus to a further understanding of point (ii), i. e., how highest truth causes derived truths. Also, we can now see how the truth is as the being is to a thing (a thing is conceived as a what-it-is, τὸ τί ἔστι or as a substance, οὐσία). We have, then, answered our first question posed at the end of section 5 (ii), for we have seen that the grasp of the being of a being (i. e., the-what-it-is) is accomplished by the function of the first principle; νοῦς grasps the first principle and the being qua what-it-is simultaneously. Such a grasp by νοῦς is unconcealment, ἀλήθεια, or truth in its highest sense, and this highest sense is the cause of derived truths or correct synthetic judgments.

We must now discover why it is impossible to be mistaken in regard to the primary sense of being, the first principle, the highest truth. The synthetic judgments of apodictic sciences are facts that are contingent upon the being (in the primary sense of τὸ τί ἔστι).[74] The correctness of the judgment as contingent fact we have seen depends upon the fundamental truth con-

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[73] Cf. section 5 (ii) of this paper. Cf. *Cat.*, 14b14-20; *De Anima*, 430a26ff.

[74] *Ibid.*, 1051b13-14.

cerning the being of a being. This primary sense of truth we know is not synthetically grasped by demonstration; rather it is grasped immediately by νοῦς as a whole, i. e., as a-synthetic. And with regard to the a-synthetic wholes or incomposites Aristotle says the following: [75] ". . . truth or falsity is as follows— contact and assertion are truth (assertion not being the same as affirmation), and ignorance is non-contact. Indeed it's impossible to err about the-what-it-is (τὸ τί ἔστι)." [76] It is impossible to err regarding the primary sense of being, because at this fundamental level of thought, it is a question of either to think or not (ἢ νοεῖν ἢ μή). [77] Note well that Aristotle uses the term νοεῖν, i.e ., the verb form of νοῦς, to express the activity which grasps or not the primary sense of being, i. e., the a-synthetic whole, the-what-it-is. In other words, νοῦς either does or does not grasp the fundamental truth, which is the unconcealment of the substance (οὐσία) or primary sense of being of a being (τὸ τί ἔστι). Regarding the primary being Aristotle says, ". . . if it *is* then it *is* in a certain way and if it is not in this way it is not at all." [78] We recognize herein the first principle in full expression: when νοῦς comprehends the primary truth (ἀ-λήθεια) in its contact with the primary being (τό τί ἔστι) of a τόδε τι, it does so in the formula which is the first principle. We recall that it is impossible to be mistaken in the grasp of this formula. We can now understand why Aristotle says, " Truth means the comprehension by νοῦς of the-what-it-is (τὸ δὲ ἀληθὲς τὸ νοεῖν ταῦτα) and falsehood or error is not, but only ignorance—and ignorance is not like blindness which is like total absence of the power of νοῦς." [79] Truth and falsity do not apply because νοῦς either grasps or does not grasp;

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[75] *Ibid.*, 1051b17-1052a4.

[76] *Ibid.*, 1051b24-25: cf. *De An.*, 429a26-29.

[77] *Meta.*, 1051b32. We should note that in this line Aristotle expresses that of which the grasp is as εἶναι τι, it-is-what sometimes translated ' essence,' and actuality ἐνέργεια. Why these expressions are the same as the primary sense of being as we have been using it should become clear later in this paper.

[78] *Ibid.*, 1052a1-2: This formulation is an expression of the grasp of being through the Principle of Non-Contradiction.

[79] *Ibid.*, 1052a2-5.

thinking or ignorance applies. It is impossible to be mistaken. Yet obviously, all knowledge though dependent upon this primary truth does not grasp it. The sciences which do not grasp the primary being are not mistaken concerning it; rather they simply do not grasp it, for they have marked off a part of being and do not seek being simply. In contemporary terms we might say the grasp by νοῦς of the fundamental truth articulated in the first principle is the thematizing of the unthematic presupposition, i. e., the condition of possibility of all demonstrative thinking.[80] Now the ground of all science must be present in all the sciences: it should be most obvious as the most fundamental fact, yet it remains hidden to all but the grasp by νοῦς. Insofar as the soul thinks at all, it does so by virtue of this fundamental, yet not necessarily thematized grasp by νοῦς, and the soul does not necessarily grasp this fundamental truth. " For as the eyes of bats are to the blaze of day, so is the νοῦς in our soul to the things which are by nature most evident of all." [81] Yet it is the task of Wisdom to un-conceal this truth by the grasp of νοῦς: since the grasp by νοῦς of the fundamental truth is a grasp through the first principle of the being of beings, i. e., a thing's what-it-is, it is a grasp of beings as being (τῶν ὄντων ᾗ ὄντα). The task of the philosopher, of Wisdom, is ontology. Now we must attend to the ontological formula given in Book Γ: perhaps there we will find the way to clarify the science we are seeking, and also how primary truth of being is thematized.

6)   We recall that Aristotle announces that " there is a science which theorizes being as being and what belongs to it in virtue of itself." [82] This science cannot be any of the so-called particular sciences which see only a portion of being, e. g., being qua na-

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[80] Cf. *ibid.,* 1004b7ff; Jaeger, *op. cit.,* p. 215; John Peter Anton, *Aristotle's Theory of Contrariety* (London: Routledge and Kegan Paul, 1957), p. 13, 100-102.

[81] *Meta.,* 993b9-10: This important point cannot be further explained here: the full explication involves in-depth interpretation of νοῦς and Wisdom and the study of the being of man in *De An., N. E.,* and *Politics.*

[82] *Ibid.,* 1003a20-21.

ture or qua mathematicals.[83] We have seen how Wisdom is distinguished from the other sciences and is prior to them, i. e., " Wisdom must be the most precise and perfect form of knowledge." [84] We have seen that Wisdom must recognize the first principle, the act of which is the most fundamental truth; Wisdom has been characterized as etiology. Further, since the search for highest causes and first principles is Wisdom, these must belong to something in virtue of its own nature,[85] i. e., these principles and causes must belong to that which Wisdom seeks not by accident but simply as being. Thus since Wisdom is the science of these causes and principles and is that science which studies being qua being in which these principles and causes inhere qua being, ". . . it is of being qua being that we too must uncover the first causes." [86] Wisdom qua etiological science is precisely ontology, for being is not other than its cause: the grasp of first causes and principles *is* the grasp of being qua being seen through them. Having investigated at some length the notion of Wisdom and seen it is an ontological science which seeks to uncover being qua being by a grasp by νοῦς of the highest principles and causes, we can now attend to Aristotle's own investigation and articulation of being qua being, i. e., we shall attempt to understand how being is contemplated qua being through the grasp by νοῦς of principles and causes.

7) Chapter 1 of Book Γ has boldly held out the promise of a science of being qua being and the previous books characterized the science as Wisdom. We should expect that chapter 2 would begin the description of being qua being. However, Aristotle immediately enters into a discussion of the senses of being, i. e., categorical ways to be. Of the many senses of being, substance (οὐσία) is primary, for the others are as related to substance.[87]

[83] *Ibid.*, 1003a23-27.

[84] *N. E.*, 1141a15.

[85] *Meta.*, 1015a13ff. " Nature " is from φύσις which could be here understood as being. Cf. Marx, *op. cit.*, pp. 23-24.

[86] *Meta.*, 1003b25-32.

[87] *Ibid.*, 1003b5-10; cf. *Cat.*, ch. 5.

Now there are as many branches of philosophy, or species of science, as there are kinds of being, but there must necessarily be a ' first philosophy,' [88] And the philosopher whose science is truly Wisdom will study substantial being:

But everywhere science deals chiefly with that which is primary, and on which the other things depend, and in virtue of which they get their names. If, then, this is substance (οὐσία), it will be of substances (οὐσίαι) that the philosopher must grasp the principles and causes.[89]

We see now that Wisdom, the etiological science which is conceived as ontological, undergoes a shift to an ousiological inquiry. Indeed, the exhortation to turn to the concrete beings, as the subject of inquiry, remains in the Books following the Book of Words Δ, viz., E, Z, H, Θ.[90]

Book E opens with the following re-formulation of the ὂν ἧ ὄν formula: " We are seeking the principles and causes of beings (τῶν ὄντων), and obviously of these qua being (ἧ ὄντα)." [91] Here the ontological formula is beings qua being (τῶν ὄντων ἧ ὄντα). Aristotle repeats that the various sciences mark off particular beings and study them qua genus, but these particular sciences treat neither being simply (ὄντος ἁπλῶς), nor beings qua being. Obviously, then, these sciences do not treat the substance (οὐσία) or the-what-it-is (τοῦ τί ἐστιν), hence they omit the question of being or not-being (ἔστιν ἧ μὴ ἔστι), for the same science that thinks the-what-it-is (τὸ τί ἐστι) thinks if-it-is (εἰ ἔστιν).[92] Thus, we learn the science we are seeking treats beings qua their being which means it turns to the substance of beings

[88] *Meta.*, 1004a2-4.

[89] *Ibid.*, 1003b16-19 (translation by Ross).

[90] Werner Jaeger says Books Z, H, Θ belong to Aristotle's ' mature ' period when his metaphysics had taken a definite substantialistic turn. Book E is a transitional Book written earlier but revised. We shall discuss this matter later. Cf. Jaeger, *op. cit.*, ch. 8.

[91] *Meta.*, 1025b1-2; cf. *ibid.*, 1061b25-28 where Aristotle expreses the task of philosophy as the study of particular being so far as it *is*, i. e., speculates about being (of beings).

[92] *Ibid.*, 1025b9-18.

wherein it thinks the-what simultaneously with "the-if," i.e., existence. The exact identification, though, is announced in the following Book: "Indeed, the question raised long ago and now and which will always be raised, and which is the source of our puzzlement is 'What is Being?' and this is the same as 'What is substance?'"[93]

Now, the shift of inquiry from ontology to ousiology in no way denigrates the science called Wisdom. To be sure, the following three Books, viz., Z, H, Θ, introduce sensible substance into 'first philosophy'; but these "concern precisely the 'actual existence' ($\dot{\epsilon}\nu\dot{\epsilon}\rho\gamma\epsilon\iota\alpha\nu$ $o\dot{v}\sigma\dot{\iota}\alpha$) of things perceptible by sense."[94] That is to say, they are concerned with material beings qua their being. Yet preceding this investigation, Aristotle has suggested the distinction between eternal, immovable, and separate substance and substance that is movable yet not separable from matter; furthermore, the science dealing with the former is called theology, for the divine will be present in them if anywhere.[95] Following the Books on sensible substance we see in Book K that first philoosphy is viewed as a science of the immaterial;[96] then Book Λ follows with the explicit theology.

We must not conclude that there is an internal contradiction in Aristotle's conception of Wisdom and its inquiry. He says that we must look at sensible substance, for one must start with what is imperfectly yet immediately known and proceed to the perfectly knowable by nature, i.e., we shall learn the absolutely knowable in itself is separable substance; thus the goal of the examination of sensible substance is to reach its being, and in this way reach being-itself.[97] Further, the developmental view which Jaeger[98] presents seems quite convincing, and we herein agree that the manifold senses of being embrace the divine

[93] *Ibid.*, 1028b1-4.
[94] Jaeger, *op. cit.*, p. 207.
[95] *Meta.*, 1026a6-20.
[96] Cf. Jaeger, *op. cit.*, pp. 209-210.
[97] *Meta.*, 1029b1-12.
[98] Jaeger, *op. cit.*, ch. 8.

and sensible substance so that the science of being qua being (ὄν ᾗ ὄν) studies being both immanent and transcendent.[99] Indeed, the final version of the metaphysics admits of no dualistic view of being: there is no true supersensible being as opposed to illusion. Again, as Jaeger expresses it, " In the revision this either-or becomes a not-only-but-also, as the latest state of the Metaphysics presents it to us in the co-ordination and superordination of the immanent and the transcendent forms." [100]

Our task now is to examine Aristotle's attempt to express ontology as ousiology and theology, i. e., to see how the study of οὐσία or τῶν ὄντων ᾗ ὄντα can be the study of ὄν ᾗ ὄν, how being qua being is grasped in beings as well as in the Divine. Since our main effort is to understand Wisdom, our interpretation will have to be as short as possible; hopefully, though, it will be adequate to allow us to see how the subject-matter of ontology structures the science called Wisdom.

8)   Aristotle turns to the this-what (τόδε τι) in order to see how it reveals substance. First, he approaches the problem in a categorical way, and he gives the name ' substratum ' (τὸ ὑποκείμενον) to the substance of the concrete being. Substratum is that which lies under, i.e., is thrown under, the other categories, and it is thus the determining unity, i. e., the subject, and it is primary.[101] Substratum *in this context* cannot be matter

[101] *Meta.*, 1028b35-1029a2; cf. *Cat.*, 4a10.

(ὕλη), for form (μορφή) is prior to matter and form is prior to the combination of form and matter.[102] Yet substratum implies the unity of the concrete being, i. e., the determination of the this-what. Now the what-it-was-to-be of each-being (ὅτι ἔστι) is that which is in virtue of itself for this is precisely what the being is.[103] The expression what-it-was -to-be is a new name for substance, and it names the substance of the concrete

[99] *Ibid.*, p. 208.

[100] *Ibid.*, p. 211; cf. W. D. Ross, *Aristotle's Metaphysics* (Oxford: Oxford University Press, 1966), vol. 1, pp. 252-253, 261ff.

[102] *Meta.*, 1029a2-32: that substratum in this categorical sense cannot be matter, cf. 1049a26-1049b1.

[103] *Ibid.*, 1029b14, 1030a1.

being.[104] With this new name the substance qua substratum is expressed in such a way that the what-it-is of the this-what is seen as that which always was and will be; i. e., the manifold ways to be, e. g., ' Socrates sitting ' and ' Socrates standing,' of the concrete being are held together in substantial unity. " In general the thinking of those things which are thought in their what-it-was-to-be is indivisible and since the thinking cannot separate them in time, space or definition, they are truly a unity; moreover, among these, substances are most truly a unity." [105]

Aristotle considers whether the what-it-was-to-be is the same or different than the concrete being, and this is precisely the question of Forms or Ideas.[106] His unqualified answer is against the theory of Forms or Ideas. Each concrete being and its what-it-was-to-be are one; furthermore, to *know* a being is precisely to know its what-it-was-to-be.[107] Now to know a being implies its form is known, for matter itself is unintelligible,[108] and this is not surprising for Aristotle says, " By form (εἶδος) I mean the what-it-was-to-be of each being and its primary substance," [109] " and when I speak of substance without matter [i. e., primary substance] I mean the what-it-was-to-be." [110] Thus the form—the substance, the what-it-was-to-be—is the intelligible unity of the concrete being: this unity cannot be other than the being, i. e., as transcendent Form or Idea; rather it is an indwelling form, i. e., the form unifies in an indwelling way.[111] Form is thus the third name given to substance.

In a sense substance is of two kinds, viz., the concrete being and its form; [112] and it is not always clear whether the name, which signifies the this-what, means the concrete being or its

[104] *Ibid.*, 1030a29-30, 1030b5, 1031a10-14, 1031a15-18; cf. Marx, *op. cit.*, p. 44.

[105] *Meta.*, 1016b1-4.

[106] *Ibid.*, 1031a15-1032a10.

[107] *Ibid.*, 1031b18-22.

[108] *Ibid.*, 1035a9.

[109] *Ibid.*, 1032b1. He says primary substance here because he has spoken earlier of secondary substances.

[110] *Ibid.*, 1032b14.

[111] *Ibid.*, 1037a29.

[112] *Ibid.*, 1017a22-25, 1039b20-22, 1038b-3.

form.[113] In speaking of substance without matter, i. e., bare form, Aristotle means the what-it-was-to-be of the being and this is primary substance.[114] This distinction is important since ". . . there is some matter in everything which is not the what-it-was-to-be, i. e., a bare form, but is a this-what [i. e., a concrete being]." [115] Thus, we see primary substance qua form is not identical with (is something more than) a concrete being, yet it determines in an immanent way and is one with the being of *this* complex of mater and form. Now, concrete beings are capable of coming-to-be and passing-away while the form or substance of these is not so capable, and this is so because the former have matter while the latter do not, and those beings which come-to-be and pass-away are a complex of form and matter.[116]

The concrete being is a complex of form and matter, and because it has matter, it is capable of being or not being.[117] But matter does not *determine* the being of the concrete entity, rather it is form that does this. The form we have seen is the what-it-was-to-be or the substance in the primary sense, and as such is the unity of the being, is the determination of the being. Now the existence of the concrete being is given, hence for the philosopher, who we recall is an etiologist in the science called Wisdom, ". . . clearly the question is *why* matter is a definite thing." [118] " Therefore we are seeking the cause, i. e., the form, by reason of which matter is a definite being, and this is the substance." [119] We must examine further in what way substance is the cause of a concrete being's being.

Aristotle recognizes that substance is a principle and a cause and establishes this as a starting point to pursue the question of what substance is.[120] In any inquiry the question is always,

[113] *Ibid.,* 1039b20, 1043a30.
[114] *Ibid.,* 1032b14, 1031a10-18, 1032b1, 1030b5.
[115] *Ibid.,* 1037a1.
[116] *Ibid.,* 1033b17-22, 1039b20-30, 1043b18-19.
[117] *Ibid.,* 1032a21, 1039a28.
[118] *Ibid.,* 1041b3-4.
[119] *Ibid.,* 1041b6-8; cf. 1043a2-3, 1043b13.
[120] *Ibid.,* 1041a6-10: this examination is the whole of Book Z, ch. 17.

" Why does a particular predicate attach to a subject " : this is precisely to ask for the cause. And this is the what-it-was-to-be of the thing. Now in the case of coming-to-be and passing-away, we seek the efficient cause also. (But this kind of inquiry is that of the theoretical science, physics.) [121] In the case of being (τοῦ εἶναι), the final cause is also (besides the what-it-was-to-be) sought.[122] It is extremely important here to bear in mind that Aristotle is seeking what kind of cause substance is: we should note also that material cause was *not* mentioned, and that efficient cause was relevant only regarding sensible substances when studied not qua their being.

What we are looking for is obscure when a term is not predi-cated of another, for here the term is simple (ἁπλῶς) . Yet we must articulate our question before we can inquire. In the case of a this-what, i. e., a particular concrete substance, which we know is a complex of matter and form, the question must be articulated as " Why is matter a definite thing, i. e., a this-what? " The answer is that the what-it-was-to-be is present. The question asks precisely the cause of the being-this of a thing, which is to ask the reason in virtue of which matter is something definite. This we know is the form (εἶδος) , which is to say the substance. Substance is the primary cause (qua formal) of the concrete being, and substance is to be thought of in the sense of formal cause.[123] Again, we can see this by looking at a this-what as a compound of elements. A syllable is more than its compound of elements, e. g., ' ba ' is more than ' b + a.' A syllable is something, not only its elements but also something more. This ' something more ' is the cause which makes this-being precisely to be what-it-is. And this cause is the substance or being of the this-being; and substances are formed according to their own what-it-was-to-be. Thus, formal cause is the substantiality of individual substances or of any this-what.[124]

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[121] Cf. *ibid.*, Book M, ch. 1, 1076a5-10.
[122] *Ibid.*, 1041a10-34.
[123] *Ibid.*, 1041b1-10.
[124] *Ibid.*, 1041b12-35.

Now, what substance qua cause of a this-what is cannot be reached by inquiry, i. e., inquiry conceived as categorical judgment or attachment of a predicate to subject, for substance is a ' simple ' ($\dot{a}\pi\lambda\hat{\omega}s$) or, as we saw earlier in our discussion of truth,[125] an incomposite ($\dot{a}\sigma\acute{v}\nu\theta\epsilon\tau a$). Nor is demonstration possible. Our attitude towards such things is not the same as in inquiry.[126] To be sure, as philosophers, our attitude must be that of Wisdom and is determined by its intention, viz., being, which is sought in the simple substantiality of a this-what.

Aristotle next considers substance or being of the this-what as distinguished in respect of potency ($\delta\acute{v}\nu a\mu\iota s$) and actuality, or complete reality, ($\dot{\epsilon}\nu\acute{\epsilon}\rho\gamma\epsilon\iota a$ and $\dot{\epsilon}\nu\tau\epsilon\lambda\acute{\epsilon}\chi\epsilon\iota a$) and of function, sometimes called action ($\dot{\epsilon}\rho\gamma o\nu$).[127] We saw that in directing our attention to the this-what, the problem of the unity of form and matter, in fact, is the question of the being or substantiality of the concrete being. Now the examination in terms of potency and actuality will reveal how this immanent process of determination, i. e., the in-forming of matter, occurs: in other words, we face the same question, only we view the this-what dynamically: "As we said, the matter and form are one and the same [i. e., in a this-what], the former as its potentiality, the latter as its actuality. Therefore, it is the same question in general as what is the cause of the unity and being-one of a thing." [128]

We are now in a position to understand how form and matter become one: ". . . matter is a potentiality precisely because it may become its form; and when it is actual, then it is in its form." [129] Viewed dynamically, we find confirmed our earlier conclusion that the concrete being is caused by form; here we find form identified with actuality. Aristotle explicitly makes the identification we should expect: " Obviously, therefore, sub-

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[125] Cf. this paper, section 5; cf. *Meta.*, 1051b18ff.

[126] *Meta.*, 1041b10-11; cf. 1064a9; cf. Marx, *op. cit.*, pp. 8-10 for discussion of philosophical attitude.

[127] This discussion primarily occurs as the whole of Book Θ: it is resumed in Λ.

[128] *Meta.*, 1045b18-21, cf. 1048a30-35: cf. *De An.*, 412a10.

[129] *Ibid.*, 1050a15-17; cf. 1014b20.

stance or form is actuality." [130] Again, the priority of actuality over potentiality in their co-relation is established in respect of formula, time, and substantiality.[131]

Clearly, Aristotle thinks actuality on a par with form and substance, and as such, actuality must be said to be the cause of a this-what. Earlier, this primary cause of beings was found to be formal cause; now we must see how actuality is cause. All action or function, e. g., coming-to-be, is toward an end (τέλος); the end is that for the sake of which any thing acts or becomes: actuality is the end or for-sake-of-which of potency.[132] "For the action (ἔργον) is the end (τέλος) and the actuality (ἐνέργεια) is the action. And so even the term actuality is derived from action, and tends to mean complete reality (ἐντελέχεια)." [133]

Let us examine closely how this final cause is thought in the same way as formal cause, viz., they are both said to be the cause of a thing's being or are both substantiality qua cause of particular substances. Actuality (ἐνέργεια) is, we recall, form viewed dynamically; hence ἐνέργεια is ". . . an activity complete at any and every moment of itself, containing its end fully immanent within it throughout its course. . . ."[134] Again, ἐνέργεια means ἐντελέχεια: let us break this word into its components. ἐν means in, τελ indicates end, and ἐχεια derives from the infinitive ἐχεῖν, meaning to have or possess. Hence, we can understand in English ἐντελέχεια as possessing-the-end-*in*, or actual existence also means possession-of-the-end-within. This latter rendering of the Greek term ἐντελέχεια seems to do full justice to Aristotle's meaning. The end as cause must be understood as an immanent cause, like in-dwelling form. Now, we recall that the formal cause was earlier named τὸ τί ἦν εἶναι, which we

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[130] *Ibid.*, 1050b2; cf. 1015a13-20, 1043a1: here the what-it-was-to-be is included in the same identification.

[131] Cf. *ibid.*, *Book* Θ, ch. 8.

[132] *Ibid.*, 1050a5-10.

[133] *Ibid.*, 1050a22-24; cf. 1047a30.

[134] Mure, *op. cit.*, p. 86; cf. *Physics*, 199a1ff., for a physical science approach to this final cause as immanent.

translated as what-it-was-to-be. This term also reflects the indwelling of the end at every step of the way as well as form, i. e., the form is the actuality and end and as such it causes the being as inner principle.

9) Now, our intention is to discover the nature of Wisdom as ontology, so we can now find a preliminary explanation. Wisdom is etiology, yet its intention is to grasp the ultimate ' why ' of beings. In turning to the being of beings, we find the ' certain ' causes which Wisdom seeks are formal-final, i. e., substance of every this-what.[135] Also, we learned previously that the philosopher grasps being by νοῦς through the first principle.[136] This principle is attained in the grasp of the substance of every this-what for that-it-is and what-it-is are grasped in the incomposite whole (ἀσύνθετα), i. e., the being or cause of being-this: a being-this cannot not-be (-this), hence contrary attributes cannot be predicated of it. We see, then, that this grasp by νοῦς of the philosopher is the most fundamental truth; and just as the being (οὐσία) it grasps is the cause of the this-what, the truth which grasps it is the cause of derived truths, for correct predication is only possible on the basis of, i. e., is caused by, this fundamental truth, though correct predication can occur without being aware of its own cause.

Early in our research we characterized Wisdom by five points;[137] let us now see how the grasp of substance fulfills these demands. Wisdom was said to be science of the most universal. In the grasp of substantiality qua formal-final cause, the philosopher grasps the causes of all things, for the causes of substance are the causes of all things: ". . . therefore all beings have the same causes for without substance movements and modifications cannot be."[138] And, "All beings which are are said to be in the same way; each being that is is said to be insofar as it is a modification of being. . . ."[139] This universality

[135] Cf. this paper, section 8.
[136] Cf. this paper, sections 5 and 8.
[137] Cf. this paper, section 2.
[138] Meta., 1071a2-3.
[139] Ibid., 1061a7-10; cf. Book K, 3.

of being one might think would make it most obvious to grasp. But this is not so, for νοῦς in man's soul is blind to the most obvious,[140] and so the grasp of it is most difficult. However, the grasp of it is most accurate, for it is grasped through a single principle and ultimately a single cause, for only the coalesced formal-final cause is the ' why ' of substance. And it is the most instructive grasp, for though it cannot be demonstrated, it is the basis of all demonstration. And surely one who grasps the ultimate ground most truly has knowledge, and as grasp of ultimate cause, no knowledge can be above it. It remains only to see why Wisdom as ontology is a science for its own sake. This will become clear in the discussion of Aristotle's theology.

10)   The science of being qua being studies not only the being of concrete beings but also separate substance to which Aristotle had hoped the former study would lead.[141] The theology which occurs chiefly in Book Λ is sometimes identified with ' first philosophy,' [142] but a strict identification of these would exclude the study of being qua being which we have just examined. However, if we assume Jaeger's convincing argument,[143] we can bracket these references and begin to appreciate theology as another approach to being qua being, which the philosopher undertakes as a complement to the previous approach to being via beings.

Aristotle rules out the possibility that separate substance can be the mathematicals or the Ideas.[144] Yet the movement of and coming-to-be and passing-away in the universe, the eternal cyclic motion of the spheres, all demand the existence of an eternal mover which is itself unmoved.[145] This unmoved mover is eternal substance and actuality, and as such it moves as final cause; furthermore, this unmoved mover, which names

[140] *Ibid.*, 993b10.
[141] *Ibid.*, 1041a7-10.
[142] Cf. *ibid.*, E, 1; K, 7; Λ, 1, 7; A, 2.
[143] Cf. Jaeger, *op. cit.*, ch. 8.
[144] Cf. *Meta.*, Book M, 1-9, Book Λ, 10.
[145] *Ibid.*, Book Λ, ch. 6ff; *Physics*, Books VII, VIII.

the final cause, moves as the object of desire, as being loved.[146] As final cause we might suspect that the unmoved mover is immanent within beings of the universe, for we have seen the cause of beings is immanent and universal. In a sense, this is true, "for all beings are ordered together to one end . . . ," [147] i. e., *the* final cause moves all. We can see this most clearly in Aristotle's discussion of how the universe contains the highest good, i. e., the unmoved mover,[148] as separate or as order of the parts.[149] His answer is that the good is to be thought in both ways, and he gives the analogy of an army: ". . . for its good is found both in its order and in its leader, and more in the latter; for he does not depend on the order but it depends on him." [150] Here we see ' the not-only, but-also ' view of ontology pictured in metaphorical terms. Being (qua final cause) is immanent within the universe of beings, yet it is transcendent and independent. And the present interpretation maintains this is precisely Aristotle's achievement in ontology, viz., his treatise reveals a philosopher in his struggle to articulate ὂν ᾗ ὄν; and his articulation must recognize that beings are and are not being qua being which is in them yet more than them. Theology and ousiology are, then, merely two approaches to ontology, *not* separate sciences; they are simply two ' ways ' Wisdom carries out its task, viz., to theorize being qua being in such a way that the articulation retains the tension between the immanence and transcendence. Theology emphasizes the latter, naming it the Divine; ousiology emphasizes the former.

11)   The importance of our interpretation of Aristotle's ontology will come into greater focus when we see how it determines Wisdom, i. e., how being qua being determines its own science. We shall discover this in our final interpretation of theology.

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[146] *Meta.*, 1072a25-1072b4; cf. 1073a3-5.

[147] *Ibid.*, 1075a19.

[148] The identity of final cause and good will be discussed later. Cf. *ibid.*, Book Λ, 7.

[149] Cf. *ibid.*, 1075a11-25.

[150] *Ibid.*, 1075a14-16; cf. 1075b8-10, 1076a4, 1072b13.

The unmoved mover is separate substance, hence is pure ac-
tuality; since it is without matter and potentiality, its activity
must be mental activity.[151] Such mental activity must be one
with its object, for it is possession rather than reception, and
this kind of thought is Divine.[152] The thinking of the Divine
is not dependent (it is pure actuality, not potential) as is man's
thinking on an object, and the Divine thought is of the highest
good: " Thus, since it is best, Divine thought thinks itself; and
it is thought thinking on thought (νόησις νοήσιως νόησις) ." [153]

This self-dependent actuality is the best life, for the actuality
of thought is the Divine and the life of the Divine is best.[154]
For man, such a life is the best that he can have and as such
is his highest happiness, yet one which he can enjoy but for a
short time.[155] Furthermore, Wisdom in a sense is an imitation
of the Divine in its very act of theorizing, for theorizing is the
most pleasant and best, which is the Divine element of theo-
rizing.[156] Thus, we find Wisdom is a Divine science both in
character and in intention; thus, another of the original char-
acterizations of Wisdom is satisfied by Wisdom qua theological
ontology. As an imitation of Divine thought, Wisdom has for
its precise goal or end theorizing; men have theoretical science
in order that they may theorize, they do not theorize in order
to *have* theoretical knowledge.[157]

We saw earlier that wonder characterized philosophy.[158] Now
we can see this characterization more clearly. Wisdom is the
good state in which men sometimes are, and Wisdom is grasping
being; as the grasp of transcendent being, in Divine terms, Wis-
dom grasps the complete actuality of this good state (and
names it the Divine) and this compels wonder. But the Divine
is in a state better than man's good state since It is pure ac-

[151] *Ibid.*, 1073a3, 1072b15-30; cf. Ross, *op. cit.*, p. 182.
[152] *Meta.*, 1072b15-24; cf. *De An.*, Book III, Chs. 5, 6, 7.
[153] *Meta.*, 1074b25-35; cf. Ross, *op. cit.*, p. 182.
[154] *Meta.*, 1072b25-30.
[155] *Ibid.*, 1072b14-17; *N. E.*, 1077a12ff.
[156] *Meta.*, 1075a3, 1071b23-24, *De An.*, 415b1-3.
[157] *Meta.*, 1050a13.
[158] Cf. this paper, section 2.

tuality, and this compels man's wonder even more.[159]   The actuality of thinking compels man to wonder, and the complete actuality named the Divine compels even more.

Now at last we can see how ontology is Wisdom *par excellence* and thus how being qua being structures Wisdom. Since Wisdom is theorizing which has as its goal theorizing, Wisdom is theorizing for its own sake; thus the final criterion of Wisdom is fulfilled.[160] We have seen that Wisdom qua ontology can be pursued in both ousiological and theological terms. We have seen how these approaches indicate the immanent-transcendent tension in ontological thinking, and this tension is demanded by the intention of ontology, viz., being qua being, for being is immanent and transcendent. Any science aspiring to be ontology must retain this tension as its very structure, and this Wisdom does since it is theorizing for the sake of theorizing. Wisdom can again be expressed as the grasp by νοῦς of being; and since being is immanent and transcendent, Wisdom must remain theorizing for its goal though immanent is transcendent. Wisdom is seeking, is a science ever sought. Wisdom is moved by being a transcendent, as final cause or complete actuality; yet the final cause is immanent as formal cause, as the actuality of theorizing. Wisdom is the philosopher's imitation of or striving for the Divine, which is an ontological-theological naming of being.

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[159] *Meta.,* 1072b24-25.
[160] Cf. this paper, section 2.

REVIEW ARTICLE

BURIDAN, OCKHAM, AQUINAS: SCIENCE IN THE MIDDLE AGES

THE DEATH OF Ernest A. Moody in December of 1975 deprived the academic world of one of its foremost medievalists and intellectual historians, a person to be ranked surely with Pierre Duhem and Anneliese Maier for the many difficult texts he made available to scholars and for the novelty of the insights with which he continually stimulated them. Fortunate it was that just six months before his death the University of California Press saw fit to publish his collected papers, together with an autobiographical preface that explained his intellectual odyssey, why and when he wrote what he did from beginning to end, and how he finally evaluated the results of all his labors.[1] This series

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[1] Ernest A. Moody, *Studies in Medieval Philosophy, Science, and Logic.* Collected Papers, 1933-1969. Berkeley: University of California Press, 1975. 477 pp., no index, $20.00. Apart from the Foreword and the Preface, the papers include: "William of Auvergne and His Treatise *De Anima*," pp. 1-110, written as Moody's M. A. thesis at Columbia in 1933 and previously unpublished; "John Buridan on the Habitability of the Earth," pp. 111-126, which originally appeared in *Speculum,* Vol. 16 (1941); "Ockham, Buridan, and Nicholas of Autrecourt," pp. 127-160, reprinted from *Franciscan Studies,* Vol. 7 (1947); "Ockham and Aegidius of Rome," pp. 161-188, also from *Franciscan Studies,* Vol. 9 (1949); "Laws of Motion in Medieval Physics," pp. 189-202, reprinted from *The Scientific Monthly,* Vol. 72 (1951); "Galileo and Avempace: The Dynamics of the Leaning Tower Experiment," pp. 203-286, reprinted from the *Journal of the History of Ideas,* Vol. 12 (1951); "Empiricism and Metaphysics in Medieval Philosophy," pp. 287-304, reprinted from *The Philosophical Review,* Vol. 67 (1958); "The Age of Analysis," pp. 305-320, reprinted from *Proceedings and Addresses of the American Philosophical Association,* Vol. 36 (1963); "A Quodlibetal Question of Robert Holkot, O. P., on the Problem of the Objects of Knowledge and Belief," pp. 321-352, reprinted from *Speculum,* Vol. 39 (1964); "Buridan and the Dilemma of Nominalism," pp. 353-370, which appeared in *The Harry A. Wolfson Jubilee Volume,* published at Jerusalem in 1965 by the American Academy for Jewish Research; "The Medieval Contribution to Logic," pp. 371-392, reprinted from *Studium Generale* (Heidelberg), Vol. 19 (1966); "Galileo and His Precursors," pp. 393-408, which appeared in *Galileo Reappraised,* ed. C. L. Golino, Berkeley: University of California Press, 1966; "William of Ockham," pp. 409-440, reprinted from the *Encyclopedia of*

of papers, together with Moody's three books,[2] stand as a monument to the man's impressive scholarship; they also afford those of us who knew and admired his work the opportunity to reflect on his achievement and to offer our own critique of his central theses.

My research interests have paralleled Moody's in a remarkable way, although we came to approach our common area from diametrically opposite directions. In my case Thomism provided the initial framework for my deep interest in Aristotle and in the medieval commentaries on the *Physics*, *De caelo*, etc., that led, by howsoever circuitous a route, to Galileo and his *nuova scienza*. In Moody's case it was Ockham who provided a similar inspiration, and this, oddly enough, precisely because of opposition to him from the Thomist camp. As he tells us,

What attracted me to Ockham, in the first instance, was the bad publicity given to him by the Thomists and particularly by Gilson, who portrayed him as a diabolical genius who tore down the beautiful edifice of scholastic philosophy and theology erected by Saint Thomas Aquinas. Since it was natural for me to side with the underdog, I felt the urge to find out what Ockham had to say.[3]

This enticed Moody into his doctoral study of Ockham's logic, which in turn led, after years of maturation, to his most famous work, *Truth and Consequence in Medieval Logic*. Logic and methodology then gave way to concern with physical science, and here Moody found in Jean Buridan a congenial figure with whom to continue his Ockhamist interests. The fourteenth century became his focal point for ever more detailed studies, and the more he studied it, the more he saw that century as the one to which our own age is most in debt. As Lynn White points out in his foreword, quoting Moody's overall conclusion,

. . . if the later fourteenth century " has seemed to the historians of philosophy an age of decline, to the historians of science and logic it has seemed an age of rebirth and advance. . . . For better or worse, it gave a new character and direction to all later philosophy, of which we have not yet seen the end." [4]

Philosophy, Vol. 8 (1967); and " Jean Buridan," reprinted from the *Dictionary of Scientific Biography*, Vol. 2 (1970).

[2] Moody's books include *The Logic of William of Ockham* (New York and London: 1935), *The Medieval Science of Weights* (*Scientia de ponderibus*), coauthored with Marshall Clagett (Madison, Wisconsin: 1952), and *Truth and Consequence in Medieval Logic* (Amsterdam: 1953).

[3] Preface, p. xi.

[4] Foreword, p. viii; see also pp. 300, 302.

My first contact with Moody came, predictably, shortly after the appearance of his classic essay, " Galileo and Avempace: The Mechanics of the Leaning Tower Experiment," [5] at which time I took issue with the mechanical doctrines he there attributed to St. Thomas and particularly with his attaching the labels " Cartesian " and " Platonist " to Aquinas's thought.[6] As a result of an initial interchange both of us prepared notes for the *Journal of the History of Ideas* and corresponded about them over a considerable period; in the end, however, neither was pleased that he had understood and met the other's objections, and by mutual consent we withdrew our manuscripts. Neither of us returned to the precise matter of the interchange, although I later attempted to set the record straight on Aquinas's contribution to medieval mechanics in my treatment of him in the *Dictionary of Scientific Biography,* without, however, making reference to Moody's interpretation.[7] Fortunately, in the intervening years my Dominican confrere, James A. Weisheipl, has written two scholarly articles wherein he makes essentially the same points I had indicated to Moody, without himself being aware of that interchange.[8] Since Aquinas's teaching is thus now well exposed in the literature, a few comments may serve here to relate that teaching to Moody's exposition of it in " Galileo and Avempace."

Paralleling his work in medieval logic, where he was able to translate the discursive Latin texts of the fourteenth century into the symbolic expressions of twentieth-century logic, Moody attempted to formulate a key problem of medieval and early modern dynamics in terms of equations that would be intelligible to twentieth-century physicists. He thus pictured the difference between Aristotle and Galileo over the possibility of motion through a void, a topic discussed in Galileo's Pisan work *De motu,* as captured in the two equations, $V = P/M$ (Aristotle) and $V = P - M$ (Galileo), where V stands for the velocity or speed of motion, P for the motive power urging the body moved, and M for the resistive medium through which the body passes.[9] In a void, of course, since there

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[5] Pp. 203-286.

[6] P. 244.

[7] " Saint Thomas Aquinas," *Dictionary of Scientific Biography,* Vol. 1 (1970), pp. 196-200, esp. p. 198.

[8] " The Principle *Omne quod movetur ab alio movetur* in Medieval Physics," *Isis,* 56 (1965), pp. 26-45, and " Motion in a Void: Aquinas and Averroes," in *St. Thomas Aquinas Commemorative Studies 1274-1974,* 2 vols., Toronto: Pontifical Institute of Mediaeval Studies, 1974, Vol. 1, pp. 469-488.

[9] Moody, *Studies,* p. 215.

is no resistance to motion, M takes the value of zero. For Aristotle this has the consequence that the motion becomes instantaneous, which is another way of saying that motion in a void is impossible; for Galileo, on the other hand, motion takes a definite value determined by the motive power alone, and thus motion through a void is possible. Then, searching out the medieval antecedents of these very different conceptions, Moody discovered them quite unexpectedly in the teachings of Averroës and Avempace: Averroës upheld the validity of Aristotle's equation, $V = P/M$, whereas Avempace rejected Aristotle's equation and in its place substituted the equation later to be found in Galileo, $V = P - M$.[10] More than that, Avempace's progressive views were not unappreciated in the Latin West; although some scholastics rejected them, " the outstanding defender of Avempace's theory was St. Thomas Aquinas," [11] who not only defended that theory but actually adopted "Avempace's ' law of difference ' represented by the formula $V = P - M$ . . ." [12] Thus Aquinas, acting as an intermediary for Avempace, played a key role in the development of Galileo's new science.

Flattering as it may be to propose Aquinas as such a precursor of Galileo, Moody's way of doing so does not do justice either to Aquinas's discussion of the possibility of motion through a void or to Aquinas's exegesis of Aristotle's text. As Weisheipl makes clear, Aquinas did not subscribe to the view that the dynamic formula $V = P/M$ represents Aristotle's own teaching, for he regarded the arguments in Aristotle's text on which this formula is based as merely dialectical and not in any way demonstrative.[13] Thus Aquinas had no reason to endorse either that formula or an alternate one such as Avempace's. It is true that fourteenth-century thinkers, following Thomas Bradwardine, became interested in dynamic formulas of various types, and that earlier Averroës (whose views on this matter Aquinas regarded as *omnino frivola* [14]) had championed $V = P/M$ as Aristotle's authentic teaching. But Averroës did this because of his idiosyncratic philosophical understanding of the principle *omne quod movetur ab alio movetur* and how that principle could be justified in the case of falling bodies. In no event did Aquinas agree with Averroës on such matters, although unfortunately Anneliese Maier thought that all scholastics

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[10] *Ibid.,* p. 227.
[11] *Ibid.,* p. 236.
[12] *Ibid.,* p. 242.
[13] Weisheipl, " Motion in a Void," pp. 476, 487.
[14] *Ibid.,* p. 480.

shared common views both on the principle *omne quod movetur* and on the problem of motion through a void—views that in her estimation constituted a fatal barrier to the rise of classical physics.[15] Weisheipl has been at pains, because of Maier's widespread influence, to show how diverse were the teachings of scholastics on these matters, and particularly how nuanced was Aquinas's view, being incapable of ready assimilation into what is fast becoming a standardized exposition among historians of medieval science.[16]

Weisheipl's studies are mentioned here as only a mild corrective to some of Moody's statements in the " Galileo and Avempace " article, for Moody rightly discerned Aquinas's rejection of the more obvious aspects of Averroës's teaching, and this was indeed a contribution at the time of his writing. Since that time twenty five years have elapsed, and my own recent researches, mainly in Galileo's early notebooks, have uncovered further connections between Aquinas and Galileo.[17] With regard to Moody's overall thesis these new discoveries work two ways: they serve to ground in an unsuspected fashion Moody's suspicion of Aquinas as an influence on Galileo, and at the same time they tend to diminish Ockham's importance and to highlight Buridan's—not indeed as an Ockhamist, as Moody thought, but as an unlikely transmitter of Aquinas's methodological doctrines to Galileo.

Buridan's importance lies in his explanation of the methodology of *ex suppositione* reasoning, a topic touched on in one of Moody's papers in this collection entitled " Ockham, Buridan, and Nicholas of Autrecourt." [18] In view of Buridan's well-known condemnation, while rector of the University of Paris, of Nicholas's teaching and the suspicion that this condemnation was actually directed against Ockhamism, Moody decided to study the complex relationships between Ockham, Buridan, and Nicholas to ascertain the precise target of the condemnation and whether Ockhamism was *de facto* involved. Moody's conclusion, which comes as no surprise, is that the condemnation was indeed against Nicholas but that it was not anti-Ockhamist, at least not against the type of Ockhamism advocated by either Ockham or Buridan.[19] Moody points to various

[15] *Ibid.,* pp. 469-470.

[16] *Ibid.,* pp. 487-488.

[17] The beginnings of these researches are reported in my article entitled " Galileo and the Thomists," which was published in the *St. Thomas Aquinas Commemorative Studies* (see note 8), Vol. 2, pp. 293-330; some of these results will have to be revised in light of my later studies reported in notes 26 and 29 below.

[18] Moody, *Studies,* pp. 127-160.

[19] *Ibid.,* pp. 157-160.

passages in Buridan's commentaries on Aristotle where he defends, apparently against Nicholas, the validity of causal analysis and man's ability to achieve certain knowledge of nature; such passages, of course, can easily serve to align Buridan with the Thomistic tradition, as Moody was well aware.[20] What is surprising is Moody's attempt to align Buridan with Ockham's position on similar matters. Now Ockham's denial of local motion as a distinct reality and his clear assertion of the inapplicability of causal analysis to this phenomena was certainly *not* accepted by Buridan; had it been, the impetus theory would never have been developed, to say nothing of the subsequent studies in medieval dynamics that make Buridan and his followers so important for the history of science generally.[21] And in the matter of certain, scientific knowledge of the world of nature, Buridan's commitment was much stronger than Ockham's; if it is to be identified with any medieval tradition, it fits more readily with Aquinas's than with that of the Venerable Inceptor.

Ockham, like Aristotle, had a theory of demonstration, but as De Rijk has made clear, for Ockham a demonstration is nothing more than a disguised hypothetical argument and thus is not completely apodictic.[22] Unfortunately Moody reads Buridan with precisely this Ockhamist bias, and so he interprets Buridan's claim that *scientia naturalis* is capable of attaining truth and certitude in a rather peculiar way. Failing to understand, as I see it, the technique of demonstration *ex suppositione,* which for Aquinas could lead to true and certain results, Moody interprets Buridan's use of the expression *ex suppositione* to mean that Buridan is advocating a type of hypothetico-deductive reasoning as proper to the natural sciences. So he draws the inference that, with Buridan,

an ineradicable element of *hypothesis* is introduced into the science of nature, and, as its counterpart, the principle that all scientific hypotheses require empirical verification, and retain an element of probability which cannot be completely eliminated.[28]

I do not believe that this is the correct meaning of Buridan's thesis. Its exposition occurs in Bk. 2, q. 1, of Buridan's commentary

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[20] *Ibid.,* p. 154.

[21] I have given some references to these teachings in my *Causality and Scientific Explanation,* 2 vols., Ann Arbor: The University of Michigan Press, 1972-1974, Vol. 1, pp. 53-55, 104-109.

[22] L. M. De Rijk, " The Development of *Suppositio naturalis* in Mediaeval Logic," *Vivarium,* 11 (1973), pp. 43-79, esp. p. 54.

[28] Moody, *Studies,* p. 156.

on Aristotle's *Metaphysics*, which inquires " Whether it is possible for us to comprehend the truth concerning things? " [24] Buridan answers the question affirmatively through a precise and thorough analysis of the types of evidence on which truth and certitude must ultimately rest. From this he draws an inference that is quite different from the one Moody attributes to him. Buridan's own words read:

It follows as a corollary that some people do great harm when they attempt to destroy the natural and moral sciences because of the fact that in many of their principles and conclusions there is no evidence *simpliciter*, and so they can be falsified through cases that are supernaturally possible; for evidence *simpliciter* is not required for such sciences, since it suffices for them that they have evidence *secundum quid* or *ex suppositione*. Thus Aristotle speaks well in the second [book] when he says that mathematical certitude is not to be sought in every science. And since it is now apparent that firmness of truth and firmness of assent are possible for us in all the aforementioned modes, we can conclude with regard to our question that the comprehension of truth with certitude is possible for us. [25]

To affirm that " the comprehension of truth with certitude is possible for us " seems to me to be quite different from affirming, as Moody does, that " all scientific hypotheses require empirical verification and retain an element of probability which cannot be completely eliminated." The latter affirmation would reduce science to dialectics, it would clearly eliminate apodictic certitude from all scientific conclusions, and this is precisely the error Buridan has set himself to refute.

Now it seems to me more than coincidental that Galileo made many epistemological claims for science and demonstration in the

[24] Iohannes Buridanus, *In metaphysicen Aristotelis quaestiones. . .* , Paris: 1518 (reprinted Frankfurt a. M.: 1964), fol. 8r, Utrum de rebus sit nobis possibilis comprehensio veritatis.

[25] *Ibid.* fol. 9r: Ideo conclusum est correlarie quod aliqui valde mali dicunt volentes interimere scientias naturales et morales eo quod in pluribus earum principiis et conclusionibus non est evidentia simplex sed possunt falsificari per casus supernaturaliter possibiles, quia non requiritur ad tales scientias evidentia simpliciter sed sufficiunt predicte evidentie secundum quid sive ex suppositione. Ideo bene dicit Aristoteles secundo huius quod non in omnibus scientiis mathematica acribologia est expetenda. Et quia iam apparuit quod omnibus predictis modis firmitas veritatis et firmitas assensus sunt nobis possibiles, ideo concludendum est quid querebatur, scilicet, quod nobis est possibilis comprehensio veritatis cum certitudine. . . .

matters with which he worked, and that he, like Aquinas and Buridan, very frequently justified his results by an appeal to reasoning *ex suppositione.*[26] This technique, as I have explained elsewhere, is implicit in Aristotle's *Physics* and *Posterior Analytics,* and it was explicitly shown by Aquinas to be capable of generating strict demonstration in the contingent subject matters with which natural science is concerned.[27] However, most commentators on Galileo, and most translators of his works, fail to grasp the nuances of this methodology and interpret Galileo, as Moody interprets Buridan, to be advocating and employing the hypothetico-deductive methods used in twentieth-century science. Such methods, of course, could never achieve the results that Galileo claimed, either by demonstrating the truth of the Copernican system or by establishing the *nuova scienza* of local motion of which he was so justly proud. To see Galileo as practicing a method that derives from Aquinas, on the other hand, and perhaps *via* Buridan but surely not *via* Ockham, would be to locate him in a methodological tradition that provided adequate canons for attaining the demonstrative certitude he claimed, however defective he himself might have been in applying such canons to the materials he had at hand.

Moody, moreover, notes of Galileo that his medieval thought context was essentially that of the thirteenth century, and suggests that " the sources of [his] dynamics . . . are to be sought elsewhere than in the tradition of fourteenth century Oxford or Paris, or than in the tradition of fifteenth century Padua." [28] Now my recent work on the sources of Galileo's Pisan notebooks, oddly enough, would appear to confirm the validity of this particular insight. Much yet remains to be done, for the work is still actively in progress, but results to date strongly suggest that the main source of Galileo's early writings on logic and the physical sciences were contemporary Jesuit professors at the Collegio Romano.[29] These

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[26] The specific texts are discussed and analyzed at length in my article, " Galileo and Reasoning *Ex Suppositione:* The Methodology of the *Two New Sciences,*" in *Boston Studies in the Philosophy of Science* Vol. 32, Proceedings of the Philosophy of Science Association 1974, eds. A. C. Michalos and R. S. Cohen, Dordrecht / Holland: D. Reidel Publishing Co., 1976, pp. 73-98 (currently in page proof).

[27] For a summary account see my "Aquinas on the Temporal Relation Between Cause and Effect," *Review of Metaphysics,* 27 (1974), pp. 569-584, esp. pp. 572-574.

[28] Moody, *Studies,* p. 274.

[29] I have reported these results in December 1975 at the annual conventions of the American Philosophical Association in New York and of the History of Science Society in Atlanta. The more significant conclusions are recorded in my article, " Galileo Galilei and the *Doctores Parisienses,*" forthcoming in *New Perspectives on Galileo,* eds. R. E. Butts and J. C. Pitt, a projected volume in the University of Western Ontario Series published by D. Reidel & Co. (probably 1977).

Jesuits were all thoroughly trained in the Thomistic tradition, but they were also eager to search through and evaluate the common teachings of the Schools, and their works are replete with references to Averroists, Scotists, nominalists, and others. I would not be surprised if Galileo derived his knowledge of Avempace, for example, from the writings (mainly *reportationes* of lectures) of such Jesuits. And this fact alone would serve to explain why Galileo's discussion continues to focus on issues that were central in thirteenth-century thought, even though they touch tangentially on problems dating from the fourteenth and fifteenth centuries that have been regarded for so long as the seed bed of modern science.

Moody's heroes, by his own admission, were the fourteenth-century thinkers who contributed much to logic and to the mathematical modes of thought that have become popular among philosophers in our own " age of analysis." Like many of us, he did his history of philosophy, of logic, and of science with an ulterior goal in mind: he thought that careful studies of the type he engaged in would cast light on present-day problems and perhaps point the way to new directions for the future.[30] Having such a goal did not corrupt his historical scholarship: withal he was careful, objective, dogged in his search for truth, and ever willing to pursue that search wherever it might lead. His loss at this time, needless to say, will be deeply felt, all the more because of the new research materials that are now becoming available on Galileo and his relationships to medieval science. That particular problem engaged much of Moody's effort over a long period of his life, and he was uniquely endowed to give a critical evaluation of the many factors that bear on its solution. My own reaction to the new materials (again, predictably) is that they connect Galileo's *nuova scienza* much more strongly with the *via antiqua* of Aquinas than they do with the *via moderna* of Ockham. This is not to say, of course, that Ockham and the nominalist movement were unimportant either for Galileo or for the rise of modern science. To be convinced of that all one need do is read these collected papers that summarize Moody's life work so well, and that now stand as such a fitting memorial to his scholarly endeavors.[31]

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BOOK REVIEWS

Actualitas Omnium Actuum: Man's Beatific Vision of God as Apprehended by Thomas Aquinas. By WILLIAM J. HOYE. Meisenheim am Glan: Verlag Anton Hain, 1975. Pp. 363. 79 DM.

If God is subsistent *esse* and creatures are modes of participation in *esse,* what can we thence conclude concerning man's beatific vision of God? William J. Hoye has posed this problem and worked out an answer. *Actualitas Omnium Actuum* represents his effort to apply " existential " Thomism, especially as developed by Gilson, Fabro, and the late William E. Carlo, to eschatology, an enterprise, surely, of interest and importance even in the eyes of those who might question his " existential " exegesis of St. Thomas Aquinas. The big question for the reviewer, then, is how well Hoye has carried out his chosen task. In the opinion of the present reviewer his work in certain respects deserves praise but at the same time suffers from grave shortcomings. Adopting the more gracious sequence, I shall speak first of the virtues, then of the deficiencies.

First of all, Hoye has massively researched almost all facets of his problem, and his book shows admirable zeal in the pursuit of pertinent materials. A quick run-through of his bibliography (from Adamczyk to Zychlinski), a casual riffling to see how high on the average page lies the division between text and footnotes, will verify this judgment. One notices immediately, also, that this is a decidedly multilingual book: English, Latin (mostly St. Thomas's), French (especially Gilson's and Fabro's—the latter's Italian writings are almost totally ignored), and German greet the eye not only in the footnotes but also in the text, which is studded with quotations, sometimes quite lengthy, so that one might well expect even the reader who is competent in all these tongues to weary of the constant switching. The author has read far and wide in later and particularly in present day literature (though I should perhaps mention that Hoye's research for this 1975 book stopped, as he tells us on page 307, in early 1970 and that no works published in the seventies are listed in his bibliography); yet he has kept close at all times to the works of Thomas himself, whose doctrine he is trying throughout to expound. His special table of citations to texts of Thomas shows how complete his coverage has been.

Furthermore, the general path followed in the book is one that touches all the bases and touches them in the right order, or at least in a good order. There are two main parts, of roughly equal length: one, " Uncreated Beatitude," concerned with God as *ipsum esse* and with the relation of creatures to *ipsum esse*; the other, " Created Beatitude," treating of man

as subject of beatification. In the first part are chapters on God as unknowable, on God as *ipsum esse, on esse commune,* on participation (the Fabro influence is here much to the fore), and on God as object of the beatific vision. The second part offers chapters on man as subject of the beatific vision (introductory to the succeeding chapters), on the fulfillment of all desires, on the actualization of all potencies in the resurrection, on sex in Heaven (an eyebrow-raiser), on the " anthropological factor "—man's unchangeable nature as perduring in the beatific vision (with a good deal of recourse to Rahner), on the act of vision (especially the *lumen gloriae),* and, finally, on life in the world as predetermining life in God.

On the whole, the first part seems superior to the second, which is more affected by certain failures—soon to be discussed—to maintain crucial distinctions. Hoye's chapter on the unknowableness of God is quite good, a weaving together of a rich assortment of texts, a fine starting-point for reflection. Hoye, at least in this segment of his book, accepts, as not all purported Thomists really do, the position of Thomas, that we simply do not know the essence of God, that our striving in this life to know God culminates in " learned ignorance." Hoye, in the later chapters, is excessively anxious to establish a kind of extensional, point-for-point correspondence between the desires of the present life and the satisfactions of the next. Knowing so little about God, he knows so much about seeing God. Very soon I shall say something about why this is so.

Anyone interested in the " existential " interpretation of Thomas's metaphysics, anyone interested in eschatology and the beatific vision, and *a fortiori* anyone interested in the wedding of such metaphysics with eschatology, will not merely find Hoye's study consistently helpful because of its remarkable collocation of texts from Thomas and others, but will also find Hoye's comments and interpretations provocative, even—or especially—where they are most questionable. Hoye's literary craftsmanship in this volume leaves something to be desired, above all with respect to precision, but he is by no means dull or soporific. I myself, at any rate, found *Actualitas Omnium Actuum* engrossing and exciting.

And now the bad news. First, as just indicated, Hoye is not careful or exact in the articulation of his thought. Many, but unfortunately not all, of the shocking things which he says he turns out not to mean, or to mean in a merely Pickwickian sense—for example, his statement (p. 113) that " God is the universal material cause." One is relieved to find that Hoye does not really mean it, but one still regrets that he said it. Nor is Hoye very deft in interpreting the words of others, with the result that he is often crying " war, war " when there is no war, as when (p. 20) he sets St. Thomas in opposition to Maritain on the issue whether it is through mystical experience or through theology that we " find the unknowable God "; surely a distinction can dissipate the semblance of conflict here.

More generally, one has the feeling that Hoye does not have full mastery over his materials, that at times he staggers under the weight of his own erudition.

The most serious fault, however, is a substantive one, one that goes very deep and that manifests itself repeatedly in the course of the book and most pervasively in the concluding chapters, causing distortions and errors that cannot be lightly dismissed, even though a large part of the book remains sound and unvitiated. Perhaps I can best indicate Hoye's root error by saying that he permits the utter distinction between God, *ipsum esse subsistens* (whose unknowableness he maintains so stoutly in Chapter One of the first part), and creatures, which merely participate in *esse,* to suffer, at least intermittently, a certain collapse. Creatures as they preexist in the creative power of God somehow come out of solution; they seem to rise up in their own creaturely reality apart from any divine decree to create them. Symptoms of this are to be seen in many places. It first becomes clearly visible where (pp. 116-117) Hoye, misreading Aquinas, identifies the creature as endowed with distinct existence and the creature as it is one with God in its preexistence in the divine power. (Cf. also pp. 163, 165 ff., 190, 245, and 295, as significant in this regard.) The sovereign primacy of God and the sheer gratuity and contingency of creatures are not sufficiently taken to heart. As a consequence, the unity of God is compromised, and—the other side of the same coin—the multiplicity of creatures seems at times to be treated as an illusion (cf. p. 36: our "pluralistic grasp" of the world is a result of the weakness of our intellect; p. 121: for God all things are an undivided unity.)

As to why Hoye has fallen into such an error, one might conjecture that a too narrow, too exclusive, possibly one could even say, a too study-chamberish preoccupation with "existential" Thomist metaphysics has corroded the sense of the high and mysterious transcendence of God, notwithstanding the verbal honors paid to it (most notably in the chapter on God's unknowableness). One has the feeling, whatever section of this book one is reading, that Hoye's metaphysics is not serving but subjugating his theology. Whether the Fabro influence, carrying a temptation to think that we can understand creatures by descending upon them from unparticipated *esse*—as if we knew unparticipated *esse,* and the Carlo influence, which by its attenuation of essence and matter to mere intrinsic limits of *esse,* makes *esse* too familiar and knowable, as if all around us were nothing but *esse*—these are questions that are hard to repress, although one assuredly should not make Fabro or Carlo responsible for Hoye's conclusions.

Tendencies to collapse at other points are linked with the one already noted. The distinction between the natural and the supernatural is at the very least placed in peril: Hoye disapproves, for example, of the position, hardly debatable, that eternal happiness is measured by holiness rather

than humanistic cultivation (p. 244, n. 39); man advances (p. 297) towards eternal life by increasing openness to being, by " acquiring desires." Even as God's free decision to create slips into oblivion, so for man the moral order tends to disappear into the metaphysical: man (p. 158) seeks God " willy-nilly "; man's destiny (pp. 300-301) is achieved independently of his own initiative. The hierarchy of human powers seems also at times to totter (cf., e. g., pp. 212 ff., 296-297).

The most startling consequences, however, pertain to man's beatitude. For Hoye this demands a satisfying of " all desires " in an almost egalitarian sense (cf., e. g., pp. 161, 172); he evinces little awareness that the satisfaction of lower desires might be included eminently in the satisfaction of higher desires, inasmuch as God contains in Himself, not formally but eminently, all limited goods. And, in particular, we get the strange chapter on sex in Heaven. Hoye finds (pp. 227 ff.) a contradiction in St. Thomas in that he calls for the satisfaction of all desires yet denies, because reproduction is excluded, that sexual activity will be an element in man's eternal bliss. The way out, Hoye urges (pp. 229 ff.), is to allow for sexual activity in Heaven—only between spouses, one presumes, though Hoye says nothing about such a restriction—on the basis of its contribution to knowledge of being. Hoye, here as everywhere, ignores the scriptural roots of Thomas's theology and takes no notice of the words of Christ which (short of a frightful exegetical wrenching) negate his thesis (cf. Luke 20:35-36; Matt. 22:30; Mark 12:25). Hoye likewise (p. 175) rejects the very question whether one's everlasting happiness might be marred by the knowledge that a person whom one loves has landed in Hell. The same person is apparently also in Heaven, in all his or her concreteness, as present in the divine essence. (Elsewhere, as I have already intimated in speaking of his submersion of the moral in the metaphysical order, Hoye seems to imply that all men must be saved, since man seeks God in all his acts. *Respondeo distinguendo* . . .)

Having said unpleasant things after laudatory things, I should like to sandwich the unpleasant things between kind things by concluding on a favorable note. Hoye's book does importantly advance the purpose which he intended it to fulfill: the total exploration of the implications of " existential " Thomism with respect to man's eternal happiness. If he fails to accomplish this purpose in a definitive and magisterial way, if there are serious flaws in his thinking and in his exegesis of Aquinas, his book will nonetheless be a stimulus, an opulent treasury of relevant materials, a comprehensive first draft, as it were, for others who may devote themselves to the same undertaking. And, if he exaggerates the continuity between this life and the next, he at least gives us a Scylla to complement the Charybdis of so many eschatologists.

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Experience, Inference and God. By JOHN J. SHEPHERD. New York: Barnes and Noble, 1975.

The tide of authors attempting to construct various kinds of viable natural theologies continues to swell, John Shepherd's work being the latest in line. Though, as he states in the Preface, he originally began to " carry out a sort of mopping-up operation on such remnants of the rational defences of Christian belief in God as were left," the resulting book represents a positive and constructive about-face.

Shepherd commences by rejecting both a refusal to consider inferential approaches to God's existence and appeals to self-authenticating religious experience as establishing it. Yet for him religious experience is not entirely without merit as a basis for inferential justification of theism, for it not only provides contact with our emotional experience, but allows for the possibility of a connection between the inferred being, which would otherwise be religiously void, and the God of religion. However, the experience he wants to focus on, contingency, is not uniquely a religious experience.

His own interest is in the experience of contingency in the sense of a "capacity to arouse a sense of ontological shock." (p. 16) Shepherd feels that this sense of contingency, which can be experienced by theist and non-theist alike, implies or is the same as the contingency usually involved in traditional cosmological arguments, viz. lack of ontological self-sufficiency, though proof of this crucial inference is left to a later chapter. The experience of contingency involves asking world-contingency questions such as " Why is there or why does there continue to be a world at all? " Much of the second chapter is devoted to disposing of some common objections to the legitimacy of such questions.

Before developing his own argument, Shepherd considers two competing approaches from contingency to the existence of God. He rejects a metaphysical intuitionism which contends that we intuit or feel a dependency which is itself revelatory of the reality of God (a " cosmological relationship ") on the grounds that contrary claims are made on the same basis of self-authenticating experience. Whereas the first approach rejects any inferential use of the feeling of dependency, the second uses it to construct what Shepherd calls the " hard " or deductive cosmological approach. He criticizes two aspects of the traditional or Thomistic argument: its move from a necessary being to a personal, spiritual God (the God of religion) and its notion of a necessary being whose essence is to exist, i. e. whose existence is in some sense (unknown to man) logically necessary.

In contrast to these Shepherd constructs a " soft " or " abductive " argument from contingency. He contends that, though a tenseless sense of contingency (Why does the world exist?) does not occasion ontological

puzzlement, the tensed sense (Why does the world *continue* to exist?) does. As such, this sense of contingency requests (as opposed to compels) some sort of explanation for the world's continuance. He rejects historical causal, natural causal and purposive kinds of explanation as not being apropos, and instead opts for a non-natural explanation modeled on the creativity of a spiritual self. That is, if we assume the model of human creativity and apply it to a Cosmos-Explaining Being (CEB), he argues that we can fruitfully provide what the sense of contingency requests, namely, a terminal, non-natural explanation of the continued existence of the world.

Taken by itself, it might seem that the notion of a CEB is a religiously sterile concept. However, Shepherd goes on to argue that the CEB is religiously significant, i. e., that he can be identified with the God of religion. He does this by contending that he is the Creator of the world, that he is worthy of worship because he created a world that provides the possibility of happiness and thus is good, and that he would want to reveal himself. But which revelation-claim provides true knowledge of God? In searching for an influential figure of religious history who can act as a spokesman of God's revelation, we find in Jesus, who uniquely addressed God as "Abba," one with authority " rooted in an intense experience of special intimacy with God." (p. 90) No other claims are considered, nor does he say whether Jesus's claim to intimacy can be validated, except that he lived as he preached, humbly—a feature certainly not unique to Jesus.

Chapters Six to Eight contain an attempt further to characterize the CEB. First he considers the teleological or qualitative argument, particularly in the " soft " form advocated by F. R. Tennant. He concludes that though this argument fails to provide an acceptable independent argument for a Cosmos-Explaining Being, yet it can function satisfactorily both to confirm the conclusion of the cosmological argument and to develop features or characteristics of the CEB.

Chapter Seven presents Shepherd's all-too-brief attempts to flesh-out the concept of a CEB by describing the features of the deity which follow or emerge from the argument from contingency, while the following chapter provides some framework of meaning for religious language. Here I. T. Ramsey's model-qualifier theory is adopted (basically again as an assumed working model), with the additional (and important) provision that religious language has descriptive as well as evocative force.

An outline of the general and specific epistemological truth-conditions governing an adequate natural theology is detailed in Chapter Nine. This endeavor is particularly helpful because it not only provides a general schema for the conditions of truth for religious theories (proposals) but also attempts to ferret out the principles and standards of judgment which

might be held in common, and, conversely, which might provide the focal point of disagreement, between theists and non-theists.

Having established his brand of Christian theism as rationally plausible, Shepherd concludes with a consideration of whether it can be taken to be true. He seeks confirmation of the conclusion of his argument from contingency in the presence of intelligent, personal life in the universe, the experience of aesthetic value, intersubjective agreement about experiences of the transcendent, and the ability of theism to enhance the meaning of life. Yet he concludes, in a most—and, in light of what has gone before, un-justifiably—tentative manner that, though one cannot outrightly claim that it is true or proven, " it would not be unreasonable to plump for tentative commitment to Christian theism as a working hypothesis, with a to a greater or lesser degree faltering verdict of ' true.' "   (p. 174)

The heart of the book's argument is found in Chapter Four, and to the discussion there I would like to turn in more detail. Rejecting the causal sense of explanation, Shepherd searches for a notion of explanation which will be adequate to the ontological contingency which he experiences. He introduces the model of human creativity as that which will most fruit-fully unpack the sense of dependency involved in contingency. Just as a human creation, for example, a new work of music, can be totally de-pendent upon the non-material self, so the world is dependent upon God as a self. The CEB is thus seen as the self-creative cosmic self.

This approach not only begins on dubious grounds but eventually leads back to the very point which Shepherd earlier rejected, namely, the model of explanation which invokes the causal principle. It begins on dubious grounds because to make his model applicable he assumes the intelligibility and truth of psycho-physical dualism. The model must contain a non-material entity; otherwise it would not be applicable to a transcendent, non-natural CEB. But the doctrine of psycho-physical dualism is subject to serious questions of intelligibility, and is therefore at least as dubious as the doctrine of the CEB for which he is arguing. The crucial model chosen thus loses much of its explanatory power and attraction, and ac-cordingly fails to provide the needed common ground to make the argu-ment work.

Further, the model of creativity is itself a causal model. That is, for the production of a work of music, a certain set of conditions is required to bring it about. What these conditions are might be open to legitimate dispute, but whatever the make-up of the conditions, there must be a certain set of conditions, necessary and sufficient to produce the effect; without them, there would be no music. Thus, creativity itself is a sub-class of causality, involving in its productive acts the very causal prin-ciple upon which Shepherd has frowned.

Why has he rejected the causal thesis?   Presumably because natural

historical causation is inadequate in particular cases to explain the change within the cause itself as a result of the causal activity. But Shepherd's restriction of causation and the causal principle to natural historical causation suggests that what he has failed to do is fully to develop an adequate theory of causation. If one adopts the notion of a cause as the totality of conditions necessary and sufficient to produce an effect, then the effect, no matter what it encompassed, would be explained by the causal conditions, provided they were sufficient. Applied to the argument from contingency, the existence of a contingent being then does more than " request " an explanation; the contingency of any being requires that there be a set of conditions sufficient to account for that contingent being.[1] Thus, the whole appeal to the dubious psycho-physical dualistic theory is circumvented, and a stronger argument results.

Likewise in Chapter Four, Shepherd introduces the distinction between the tensed and tenseless senses of the contingency question. Though considered central by him to his argument, the distinction ultimately seems to be based on a confusion. His tensed question seems to be composed of two questions: Why is there a world now and why will there be a world tomorrow? (p. 45) The first question clearly invokes his tenseless sense of contingency. The second question either requests (necessitates) a non-temporally prior series of explanatory conditions (in which case it would be the same as the tenseless sense) or else it requests a temporal series of conditions, in which case we are requesting an intransitively-ordered causal series, a position which both Aquinas [2] and at times Shepherd (p. 27) reject.

Hints that Shepherd has confused, missed, or failed to understand the crucial distinction between transitively and intransitively ordered causal series [3] can be found in his listing of cases of natural, historical causation. (p. 41) Here he recognizes no distinction between these two types of causal explanatory ordering. Whereas " B is the parent of A" is an example of an intransitively ordered series, " The glass fell because the table moved, and the table moved because the house shook " is an example of a transitively ordered one. The consequence of this oversight or confusion is the talk about temporally prior states being sufficient or insufficient to account for later states of affairs (pp. 65, 102), and, most peculiarly, his view that the CEB is self-creating. The latter entails the possibility that the CEB could cease to create himself and hence cease to exist, a position which is impossible if one adopts the requisite notion that the CEB is a non-con-

[1] Bruce R. Reichenbach, *The Cosmological Argument: A Reassessment* (Ill.: Charles Thomas, 1972), ch. 1.

[2] *Summa Theol.* I, q. 46, a. 2, ad 7.

[3] Patterson Brown, " Infinite Causal Regression," *Philosophical Review* LXXV (Oct. 1966), pp. 510-525.

tingent (necessary), being, i. e. a being which, if it exists, cannot not exist.

Though the book generally is replete with developed arguments, the section where Shepherd undertakes to develop the characteristics of the CEB is much too brief and sketchy, and at times characterized by bad arguments. A case in point is his foray into the theology of God's timelessness. The argument which he gives for God's temporality is simply that creativity is "correlative with temporality." (p. 112) But the form of the argument used here is precisely an inference which he labels illicit on the following page. That is, he argues from the fact that human creativity is correlative with temporality to the conclusion that divine creativity is such. But what independent grounds are there for applying to God concepts associated with the human model? No careful decision procedure is provided to allow us to decide which concepts are applicable and which are not.

These objections aside, there is much to be said for the book. It again shows that the argument from contingency can be developed as a plausible support for theism. Further, though his attempt to connect the CEB with Chrisianity is simplistic and dogmatic, he has, I believe, shown that a CEB (or better, a necessary being) is a religiously relevant concept.

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God and Creatures: The Quodlibetal Questions. By JOHN DUNS SCOTUS. Translated with an introduction, Notes and Glossary by Felix Alluntis, O. F. M., and Allan B. Wolter, O. F. M. Princeton University Press, 1975. Pp. 582. $25.00.

The story of the influence of Duns Scotus remains to be written. In the English speaking world, there is the intriguing matter of his direct and indirect appearances around the turn of the century: Harris's two-volume work, for example, and even in James Joyce and Gerard Manley Hopkins. Perhaps Charles Peirce's eccentricity has distracted us from asking why Scotus was there to be read at all. Since the philosophy (and theology) departments of Catholic colleges generally have tended away from scholastic manuals, there is probably not interest enough at present to trace the extensive Scotist influence in the development of neo-scholasticism. And although there is now a ferment of sorts in Medieval Studies at secular universities, Scotus seems less worked on than Aquinas and Ockham or even Anselm and Abailard. Of course, Scotus is a difficult thinker—and writer!—and it is not as if he were being completely ignored.

But the research effort does not seem to match the extent of his in-
fluence in medieval and modern thought.

So it is not only against the background of limited skills in Latin today
that one welcomes the appearance of Scotus-texts translated into English.
I thought potential translators had been put off by the fact that the critical
edition of Scotus's works is still incomplete. But Frs. Wolter and Alluntis
have shown that the problems are not insurmountable. It was no easy task,
of course; for the Spanish edition, which is the ancestor of the present
volume, Alluntis had produced an almost entirely new text.

The choice of the *Quodlibeta On God and Creatures* is an apt one. In
this single, mature and wide-ranging text, we find succinct displays of
major themes in Scotus. In the present book, helpful footnotes direct
the reader to relevant passages in the other works of Scotus, so that, al-
though it was not so intended by the editors (or Scotus), anyone relatively
familiar with Scotus could—were it not for the price!—use the book to lead
beginning students in philosophy and theology into Scotus's system. It
is clearly suitable for advanced courses that follow up some specific topic.
And, with a minimal sophistication in scholastic philosophy, one could
use it and its references to educate oneself in Scotus.

The theological content of most of the questions is obvious: the Trinity
of Persons, the Human Nature of Christ, the Eucharist and so on. There
is even a touch of " casuistry " in a discussion of the benefit of masses offered
for one or many. Philosophical issues are, of course, mingled with these ac-
counts. Question 9, on the Eucharist, has a discussion of quantity that is
important (at least) in connection with Ockham's criticisms. Question 7,
on the demonstrability of God's omnipotence, is a supplement to material
already available in English on Scotus's proofs of the existence and at-
tributes of God. Other discussions of philosophical interest are: Question
3, an extended treatment of relations, which helps to understand Scotus's
insistence that relation can be " a thing " (in fact, the first six questions
bear on his account of relations) ; Question 9, whether an angel can inform
matter, on substantial form; Questions 13, 15, and 16, on the intellect and
will, the latter question with an account of freedom and necessity in
human actions; Question 18, on the goodness and badness of interior and
exterior acts; Question 17, on love; and Question 21, on fortune.

The English text is remarkably readable—one recalls Gilson's quip that
Scotus is as much decoded as translated. The editors are confident enough
in their knowledge of Scotus not to be afraid to expand sentences and add
clarifying headings and explanatory phrases. Technical terms and phrases,
even when a revealing translation can be provided, need some special
treatment, and the editors have adopted the reasonable course of providing
a glossary. So that the various questions can be read independently, they
have marked each term covered in the glossary with an asterisk the first
time it appears in each question.

The glossary was prepared by Fr. Wolter and represents a kind of mini-lexicon for Scotus. It is hardly a substitute for the extended analysis many of us would like to see him publish, but one can gratefully add it to his other contributions in presenting and interpreting the thought of Scotus. There are indices but no bibliography. Bibliographical details for this *Quodlibet,* along with a brief account of Scotus's life and works, are given in the Introduction. The editors have chosen to limit references outside Scotus to those authors to whom Scotus alludes. This eliminates the need for becoming involved in controversial interpretations and is, I think, a prudent decision. It is preferable to being very selective about commentary; and the only alternative, especially given the range of topics discussed, would be an extensive secondary work in its own right.

The book is quite handsomely done. The more expensive but convenient placing of notes at the foot of the page, a tasteful and readable selection of type, quality paper, a sturdy, good-looking binding and a slick jacket—all attest that, in our inflated times, the twenty-five dollar price tag is (probably) not rapacious. But it is out of the class-text range, and this raises a serious question: where is the Latin text? If all but reviewers and the well-to-do are going to consult it in libraries, the present volume should have been as useful as the Spanish edition.

But, then, why should such a book be produced primarily for libraries rather than for the desks of students, amateur or professional? The issue is important enough for some comment; for, even apart from our present economic hard times, something ought to be done to counter the trend in scholarly book publication. No one can deny the high cost of everything these days, but we seem to be witnessing a " packaging " problem that rivals that of the food industry. Except for careful proof-reading, there is nothing here that demands special handling: no charts, illustrations, formulae, and so on. And neither Wolter nor Alluntis can be holding any-body up for extravagant royalties. Surely scholars and students would be satisfied with the format of the lowliest penny dreadfuls.

Perhaps college libraries will eventually be the instruments of change. There seems to be an idea that they should bear a major part of the cost of low volume, scholarly work—an idea that seems to me on a par with soaking insurance companies. If only in self-defense, libraries might sup-port a " cheap press " of some sort. The model should be the student editions of prewar Europe, not the present textbook paperbacks. (There lies a stable full of problems I do not wish to take on.) Why not uncut pages, cheap paper, cardboard covers, or no covers at all? With some ad-justment in home bookshelves, we could get along with rolls like galley proofs. If libraries need something more—and if technology cannot provide something truly economical—they could support small binderies for what they are paying now for " packaging."

There does not seem to be enough external or internal pressure to make college faculties take any independent action on these problems. And one cannot expect to lay the responsibility on book publishers. University presses, in particular, perhaps because they have worked so hard to be accepted as professionals in the book publishing field, are not really very flexible in their format. In the final analysis, a large share of the burden may lie with the unlikeliest group of all: the authors. Those of us who work in these areas are usually so grateful to find a publisher that we do not want to make any trouble. In the present circumstances, though, we may have to assume as much responsibility for our books as for the ideas we put into them.

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The Natural Law Tradition and the Theory of International Relations. By E. B. F. MIDGLEY. New York: Harper and Row Publishers, Inc., 1975. Pp. 607.

The inadequacy of modern juridical positivism is felt in many areas of human responsibilities and nowhere more, perhaps, than in the areas of the new biological and nuclear technology where decisions concerning human life and death and the survival of the human race disturb consciences and create fear. Who and on what grounds can make such decisions? Who and for what reason can still declare a war? There is a growing awareness among scholars and scientists that at least part of the problem of ethical dilemmas confronting modern man stems from the separation between the technological advances and a sound teleological principle concerning their use. There is a moral vacuum in the modern technological possibilities. Mr. Midgley's book reflects upon and attempts to correct such a vacuum in the realm of international relations, focussing particularly on the issue of war. The book, hardbound, photolithographically printed from type-written copy, with notes, bibliography and an index, is the product of both study and experience. Mr. Midgley's familiarity with both scholastic and modern philosophy is clearly manifested, and his work in the department of defense in Great Britain's Civil Service must have been a valuable experience. He returned to research work at the London School of Economics and Political Science and is presently a Senior Lecturer in Politics at the University of Aberdeen.

Convinced that the classical and especially thomistic conception of natural law may still play a role in the present crisis, the author is critical of contemporary superficial and wasteful ways of dealing with fun-

damental problems of human existence. " Current approaches," he writes in the Introduction, " are variously based upon juridical positivism, upon purely behavioural analysis of the international process, upon game theory techniques, upon amoral or pseudo-rational models of the international system, upon an eclectic attitude which depends upon some esoteric notion of 'good judgment' unrelated to any traditional wisdom, upon situation ethics, or upon paradoxical notions of the so-called antinomies of diplomatic-strategic conduct. All these approaches inevitably lapse either into inconclusiveness or into contradictions to the extent that they are not based upon any definite philosophy of man, *a fortiori*, not upon a true philosophy of man." The need for some fundamental and truly human criteria in guiding the praxis of international relations calls, once again, for a philosophy of man. Although the writing of another history of political theories is not what the author has primarily in mind, a research of this kind is bound to be largely historical. Modern positivism itself is the result of a historical chain of various ideologies. Consequently the book covers a long sequence of political philosophers and their ideas, from Aquinas and his first neoscholastic commentators through rationalism and contract theories to the modern liberalism and positivism. Some names, such as Suarez, Vitoria, Grotius, Puffendorf, Wolff, Hume, Kant, and Weber, will be quite familiar to students of political thought; others, especially more contemporary ones like Toparelli, Sturzo, Aron, Delos, and a number of contemporary thomistic commentators, may be less so. References are made also to the papal encyclicals and the Vatican II documents on peace, war and international relations in general.

In studying the natural law tradition and its relevance for the contemporary scene, Mr. Midgley's position is that it is both necessary and sufficient to begin with Aquinas. A number of Aquinas's key ideas are pointed out to serve subsequently as a point of reference for further developments or rather departures from Aquinas's notion of the natural law. Two such ideas of particular importance to the author are the rational (intellectual) foundation of the natural law and the harmony between the natural and the supernatural in man. To the author they suggest not only that to accept God as the supreme common good in a real sense is fitting to man's spiritual aspirations but that this may in fact be also his best political gamble in contemporary confusion. " While conceding . . . that ' a humanism closed in upon itself ' may sometimes achieve a kind of success, we hold that ' the organization of the world apart from God ' can be done in the end only to man's detriment " (p. 427).

Although this reviewer disagrees little with Mr. Midgley's arguments and much less with his intention, a few observations concerning both may be in order. In discussing Aquinas, Suarez, and Vitoria the author engages in rather technical subtleties concerning grace, sin, and similar issues

that may discourage a reader seeking the meaning of the natural law in contemporary international relations and unfamiliar with scholastic reasoning. Nevertheless, if there is too much of the supernatural for the purpose of a book dealing with natural law and international relations, it must be remembered also that one of the author's complaints is precisely the absence of theology in contemporary thinking. Modern man destroyed the unity betwen the natural and the supernatural and suffers from this destruction.

Another remark concerns the natural law itself. It is true that to be effective in life and action the natural law cannot remain on the level of intellectual abstraction but must be expressed in concrete commands. It is the feeling of this reviewer, nevertheless, that Mr. Midgley's understanding of these commands is more static than is necessary or than is even true to Aquinas. There has been real and challenging progress since the thirteenth century. Consequently, to make Aquinas's natural law morality both more credible for modern man and—at least in this reviewer's opinion—more faithful to Aquinas himself, greater attention and a more positive attitude toward the modern theories of man and his universe are called for than the author seems to allow.

Along the same lines Mr. Midgley is critical also of the modern transitional period from the Renaissance on. In his view, it "yielded no new doctrine capable of securing universal acceptance as a philosophy of international law or of international society." True as this too may be, a successful dialogue (if this is one of the book's intentions) between the tradition and the contemporary world calls for a more mitigated evaluation. The modern period might not have produced a universally acceptable philosophy; it has served, nonetheless, as a useful vehicle of many social and political changes for the better. The Church recognizes this contribution in her own more positive attitude toward and acceptance of the " secular values " with and since the Vatican II Council.

Of special interest are Chapters Eight, Nine, and Twelve. It is here that, after a useful recapitulation of the natural law tradition discussed in the previous chapters, the author addresses himself to its contemporary relevance to issues such as defense, just war, protection of the innocent, armament and preparation for war, and resistance to war, all in the context of a substantial historical change, namely that the war we are talking about is the nuclear war. The United States defense position and policy are brought in as an illustration of how the just war theory with its best intentions has become unworkable. The purpose of all this discussion, which includes a review of the United Nations Organization and "its weakness," is not, we are assured, to pass a judgment on what is right and what is wrong or to make "impracticable recommendations," but rather "to discover, even in the controverted state of the existing positive

498   BOOK REVIEWS

international law, a fragmentary manifestation of some of those natural principles of public wrong which justify the refusal of formal cooperation by individuals or groups in systems of illicit preparation " (p. 264).

What applies to preparation applies also to other dimensions of modern warfare. It is in this context that the author finds some significant rapprochements between the positive jurisprudence as tested, e. g., at the Nuremberg and Tokyo trials, and the natural law principles. Such contemporary experience together with serious study of tradition may prove, as the author rightly claims, that the modern jurisprudence rejected in fact a distorted natural law. Could not the same be said for at least some modern criticism of the " traditional " moral theology?

Mr. Midgley describes how this distortion developed and how it could be corrected. But whether his discovery of the original is complete and whether the original itself without a modern retouch can be convincing enough to the modern mind may still be a question. With this question open, the students in law and philosophy will find Mr. Midgley's research both instructive and stimulating.

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Bibliography of Bioethics. Edited by DR. LEROY WALTERS. Detroit: Gale Research Company, 1975. Pp. 249. $24.00.

The term " bioethics " is relatively new and still perhaps raises a few eyebrows. Van Rensselaer Potter, a cancer researcher, claims to have coined it when he wrote *Bioethics: Bridge to the Future* (1971). The content of bioethics can be broadly described as problems and issues of the life sciences. A mini-controversy has developed among bioethicists as to how to understand the nature of their endeavor. Lawyers, physicians, scientists, ethicists, theologians, sociologists, and experts in other disciplines have expressed a special concern for the problem that man faces in the field of medicine in general and biomedical research in particular.

If the interest is new, many of the problems are not. Nor can it be said that the academic community, especially physicians and theologians, has not been concerned with the ethical implications always present in the practice of the medical profession. Though of lesser scope than the present studies, there existed manuals on medical ethics serving as textbooks for courses included in the curriculum of medical schools with religious affiliation. Well known medical codes and directives isued by national or international medical associations served as ethical guidelines for the practice of medicine.

The spirited controversy in the sixties on the morality of contraception and that on abortion since the beginning of this decade have attracted a widened interest on the part of many sorts of people. The interesting studies of Dr. Kubler Ross on death and dying, considered weird at the beginning, came to enjoy a popular acceptance outside of the medical field. Rapid advances in biology, science, and medicine, particularly in genetic and fetal research, and the possibility of cloning and behavioral modification became issues of major ethical concern because of their multi-disciplinary implications. Funds from private foundations and some government agencies helped to establish institutes and centers whose primary goal has been to study the humanistic and ethical aspects of the new biomedical problems. Among such centers one can mention the Institute of Society, Ethics and the Life Sciences at Hastings-on-Hudson, the Kennedy Institute for the Study of Human Reproduction, Bioethics and Population at Georgetown University, the Interfaculty Program in Medical Ethics at Harvard University (also funded by Kennedy), and the Institute for the Medical Humanities at the University of Texas Medical Branch in Galveston. Other medical schools are creating similar institutes or introducing special programs as part of the medical curriculum.

This scientific curiosity, however, has gone beyond the borders of the academic world. Cases such as Roe vs. Wade, decided by the Supreme Court, Dr. Edelin's well publicized conviction in Boston, and lately the Karen Quinlan controversy have captured national and international attention. Publications in overwhelming quantity, special monographs, selected readings, articles in the scientific journals, popular magazines, and the daily press have appeared, with the result that it is becoming almost impossible, even for the specialist, to keep up with them.

It is within this context that one can appreciate the significance of the *Bibliography of Bioethics,* edited by Dr. LeRoy Walters, Director of the Center for Bioethics of the Kennedy Institute. Contrary to what the title suggests, Dr. Walters's work is more than a bibliography, more than the mere listing, in alphabetical order, of the 800 entries that the present volume contains. After a short introduction of the field of bioethics, the scope of the *Bibliography* is explained. Walters and his staff have devised an information retrieval system to monitor a number of reference tools in an effort to secure all pertinent documents, printed or nonprinted, books, articles, commentaries, court decisions, etc., related to bioethical problems. The most important feature of the *Biobliography* is its *thesaurus,* an index-language developed by the bibliographers for the purpose of of translating the user's concepts into searchable terms and of enabling the user to broaden or narrow the scope of a search. Employing this method, the user, by looking up a word, can obtain an increased number of citations and cross-references. For each entry he will find an abundance of in-

formation, with references to bibliographic details, number of footnotes, " description " and " identifiers " which in turn would indicate parallel topics and studies. The *Bibliography*, thus, becomes an indispensable working instrument, a real thesaurus. To maximize its helpfulness the user is encouraged first to read the instructions and to spend some time getting an understanding of the method followed (pp. xiii-xx).

The present volume is limited to the documents which were first published during calendar year 1973. It constitutes the first and initial volume of what we are promised will be a continuing series. Regrettably, it is limited to English-language materials, for, though the current concern for biomedical problems has been greatest in the United States, there has been no lack of literature in other languages on these issues. National differences in mentality, cultural background, practices, and philosophical tendencies, as they are reflected in publications in various languages, will play a considerable part in the elucidation of the nature of these problems and in the quest for their elusive answers. In this respect the Kennedy Institute's *Bibliography* will not be of much help. But one understands the immense added effort and expense that would have been entailed by including non-English literature. Perhaps a simple alphabetical listing, as an appendix, of articles that have been published in major foreign language journals, above all French and German, would have sufficed.

The initial stages of what is now called bioethics were marked by a certain urgency and took the form of counseling or advice for the scientist or the physician facing difficult decisions. Today the tendency is to see bioethics as an independent discipline, which Walters defines as " the systematic study of value questions which arise in the biomedical and behavioral field " (p. ix). The two aspects are so intimately connected that they complement each other and both fall very much within the scope of this new endeavor. Bioethics as an independent and new discipline is still in its nascent stage, and, while it should not lose its practical aspect of contributing in the framing of policy-making decisions, whether at national or at private levels, it must continue searching for its own brand of reflection and argumentation, borrowing and blending together whatever it can take from the fields of law, moral philosophy, social sciences, and theology, on the one hand, and from the biomedical sciences on the other. To pursue this enterprise, whether in regard to a particular subject or to this new field of study as a whole, the *Bibliography of Bioethics* will prove to be a helpful, not to say an indispensable, tool.

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The Common Catechism: A Book of Christian Faith. Edited by JOHANNES
FEINER and LUKAS VISCHER. New York: The Seabury Press, 1975.
Pp. xxv + 690. $10.95.

A recent revival of the catechism must rank as one of the most unlikely
outcomes of post-Vatican II Catholicism. The book under review is but
one of four new catechisms which are currently advertised on the American
scene. This phenomenon is in sharp contrast to the rapid decline of the
catechism in the 1960's. Why this revival, particularly of catechisms of
such theological diversity? A convincing answer could well be in the
growing recognition of that very diversity as a permanent feature of present-
day Catholicism. Where once a single theology dominated catechesis there
is now plurality. This shift from uniformity to variety is mirrored in a
diversified catechesis which attempts to answer the needs of a diversified
Catholic community.

The distinguishing characteristic of the theology pervading *The Common
Catechism* is its ecumenical dimension, vaguely hinted at in the title. This
book, the work of mostly German-speaking Catholic and Lutheran scholars,
is an effort to provide a joint statement of Christian faith. As such the
overall plan of the " Catechism " reflects both consensus and disagreement.
Parts One to Four (God, Christ, Church, and Faith) are described as " the
common content of opposing viewpoints " (p. 553). Part Five, however,
which comprises the last one hundred pages of the text, is intended to
address " opposing viewpoints among those who hold common views; " in
other words, it deals with issues concerning which no common statement
is yet possible.

Most readers will applaud the authors for their achievement and en-
dorse their concern for ecumenical understanding. The authors also deserve
full marks for the high quality of their scholarship on specific topics, e. g.,
Jesus's Resurrection. As a pioneering enterprise in ecumenical theology *The
Common Catechism* ranks high. No comparable work has been attempted
elsewhere and the odds against other such ventures are great, given the
difficulties both with respect to methodology and with respect to agreement
on content. Some of these difficulties, however, impair the total effectiveness
of this book.

First, as to the ecumenical dimension: since the common agreement is
the work of theologians primarily from Lutheran and Catholic traditions,
a modification of the book's title to that effect would have been helpful.
This attempt at a common agreement is probably well suited to the
ecumenical needs of the German Churches, but when transplanted to the
pluralistic Christianity of the United States its limitations become obvious.
Inclusion of joint statements (by way of the Appendix) on Eucharist and

Ministry from Anglicans and Methodists is hardly adequate to represent the theology of both these churches. The book falls short, therefore, in meeting the ecumenical needs of American Christians for a common hand-book of their Churches' teachings.

Second, as to the " catechism " format: this is likely to generate some confusion. Traditionally the catechism was conceived of as a confessional document and an authoritative one at that. Compilers sought to communi-cate the basic message of the creed to a largly illiterate populace and used the question and answer framework as the most appropriate for their task. The book under review neither represents an official Church body nor follows the traditional question and answer mode. Admittedly there is a precedent for a new kind of catechism in the work produced in Holland a decade ago, the " Dutch Catechism." While its format was a radical de-parture from previous catechisms, it was nonetheless commissioned by that country's hierarchy. Since this ecumenical catechism does not have a com-parable authority, one must question the appropriateness of the term " catechism " for what the authors intended as a common statement of faith. Furthermore, one has to take into account the kind of audience for whom this book was written. A volume of over seven hundred pages, it was written by a team of specialist theologians and appears to be oriented towards the highly educated if not theologically sophisticated reader. Yet in the introduction the authors assure us that they have tried to reach " all those who are in any way interested in religious questions " (p. xiii) .

Third, there are lacunae which are all the more significant in a work of this nature and scope. Thus on the subject of Ministry there is no recogni-tion of the ferment taking place in the churches over the role of women. Given the relevant research that has been under way in Europe and par-ticularly in Germany this omission is all the more surprising. As an issue affecting common Christian faith the question of woman and ministry has emerged as one having tremendous implications for the future of the Churches. Ironically the authors offer some insightful comments on the equality of the sexes (p. 496) but fail to comment on the unequal access to the exercise of ministry. That omission seems more glaring when one observes the all-male list of authors contributing to the composition of the book. By way of contrast, several of the new American catechisms, by including women as authors, show more sensitivity.

Notwithstanding these defects, *The Common Catechism* is a happy commentary on the improved relationships among some of the Christian Churches after Vatican II. Publication of such a book would have been impossible even fifteen years ago. Against that backdrop we can only rejoice that so much has been achieved in such a short time.

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BOOKS RECEIVED

Colegio Alberoni, Piacenza: *La Teoria del Naturale e del Soprannaturale secondo S. Tommaso D'Aquino*, by Giacomo Crosignani, C. M. (Pp. 103, paper. No price listed)

Barnes and Noble: *Matter and Mind*, by Ilham Dilman. (Pp. 244, $13.50) *The Presumption of Atheism*, and other Essays, by Anthony Flew. (Pp. 183, $20.00)

Les Éditions Bellarmin, Montréal: *La Philosophie et Les Savoirs*. Collected essays. (Pp. 273, paper. No price listed)

Bobbs-Merrill Co.: *Philosophy and Language*, by Steven Davis. (Pp. 261 paper. No price listed); *The Prince*, by Niccolo Machiavelli. Edited and translated by James B. Atkinson. (Pp. 446, $9.25 cloth, $6.95 paper); *Periphyseon: On the Division of Nature*, by John the Scot. Edited and translated by Myra L. Uhlfelder. (Pp. 401, paper, $5.95); *Inquiry and Essays*, by Thomas Reid. Keith Lehrer and Ronald Beanblossom, eds. (Pp. 429. paper, $5.50) *Action, Knowledge and Reality; Studies in Honor of Wilfrid Sellars*. Hector-Neri Castaneda, Ed. (Pp. 364, $17.00)

Dimension Books: *Prophets and Lovers in Search of the Holy Spirit*, by Brennan Manning, T. O. R. (Pp. 125, $3.95); *Footprints of God*, by Francis Martin. (Pp. 131, $2.95)

Harper & Row: *The Religion of the Chinese People*, by Marcel Granet. Maurice Freedman, Ed. (Pp. 200, no price listed)

Luigi Loffredo, Napoli: *Trattato sul Cosmo per Alessandro, di Aristotele*, by Giovanni Reale. (Pp. 388, L. 9.000)

McGraw-Hill Book Co.: *St. Thomas Aquinas Summa Theologiae*. Vol. 31 (2a2ae, 1-7): *Faith*, by T. C. O'Brien. (Pp. 268, $15.00)

Oxford University Press: *Mankind and Mother Earth*, by Arnold Toynbee. (Pp. 671, $19.50); *The New English Bible, with the Apocrypha*: Oxford Study Edition. (Pp. 1464, paper, $8.95)

Priory Press: *Witness to Change, a Cultural Memoir*, by Richard Butler, O. P. (Pp. 230, $7.50)

Pontificia Accademia Teologica Romana: *Mons. Francesco Faberj: Profilo della sua vita e della sua spiritualità*, by Giuseppina Carillo. (Pp. 236)

The Seabury Press: *The Power of His Resurrection: The Mystical Life of Christians*, by Arthur A. Vogel. (Pp. 106, $6.95); *America in Theological Perspective*, Thomas M. McFadden, Ed. (Pp. 248, $9.95); *Body as Spirit: the Nature of Religious Feelings*, by Charles Davis. (Pp. 181, $8.95)