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Jacques Maritain: Reflections on Different Kinds of Knoweldge

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JACQUES MARITAIN: REFLECTIONS ON DIFFERENT KINDS OF KNOWLEDGE

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CHAPTER I

INTRODUCTION: THE STATEMENT OF PURPOSE

How is it possible that we can know necessary and universal truths of contingent and particular things? Again, how is it possible for knowledge of something, which is unified because of its universality, to be knowledge of the actually existing things alleged to be known, which are diversified because of their particularity? In other words, how is it possible for our knowledge expressed by the term "man" to be knowledge of that which both John and Paul are?

This seemingly simple problem has been at the root of much philosophical inquiry, This problem is involved in the pre-Socratic vacillation between being and becoming. When Heraclitus expounded his doctrines of diversity and constant fluctuation he was recognizing the actual condition of the world. When Parmenides expounded his doctrine of the unity and constancy of being he did so on the basis of the necessary and universal principle of identity. This problem led Plato to the doctrine of the Forms, or Ideas, in which that which was known was not the particular and contingent things of the world, but were the ideal types or forms of various things in which the particular things participated. This problem also led Kant to distinguish between the phenomenal world, or the world as it appears to us, and the noumenal world of the things-in-themselves. In terms of this distinction he contended that it is only the phenomenal world which can be known. Em-

piricism speaks to this problem in an opposite manner by maintaining that knowledge is knowledge of particular and contingent things, but it does so at the expense of limiting concepts to images or mental pictures which include in their representations the particularities and contingencies of things.[1] The Thomistic position expounded by Jacques Maritain (1882-1973) maintains that necessary and universal knowledge is in fact knowledge of contingent and particular things. The fundamental difference between Maritain's solution to this problem of knowledge and, for example, those of Plato, Kant and other idealist positions, concerns the involvement of contingent and particular things in the acquisition of knowledge. In other words, one fundamental aspect of Maritain's solution, without which it would not be the realist position that it is, is the involvement of being in all kinds of knowledge.

The primary interest in this work is to examine Maritain's solution to this problem in philosophy, and to examine it as it applies to the various kinds of knowledge. Thus, this position will be examined in connection with knowledge in general, or in connection with what might be called common sense knowledge. We will also examine the kinds

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[1]Aquinas has made this point concerning the limitation of knowledge to images of sensible things in connection with some pre-Platonic philosophers. "For Democritus held that all knowledge is caused by images issuing from the bodies we think of and entering into our souls, as Augustine says in his letter to Dioscorus. And Aristotle says that Democritus held that knowledge is caused by a discharge of images. And the reason for this opinion was that both Democritus and other early philosophers did not distinguish between intellect and sense, as Aristotle relates. Consequently, since the sense is immuted by the sensible, they thought that all our knowledge is caused merely by an immutation from sensible things. This immutation Democritus held to be caused by a discharge of images." Summa Theologica, Ques. 84. Art. 6. resp.

of knowledge which are proper to the various sciences,[2] both speculative and practical. Furthermore, throughout the consideration in this work of Maritain's solution, as it applies to the various kinds of knowledge to be considered, the fundamental involvement of being will be followed.

It must be recognized that this problem in epistemology does not command a large group of interested readers and in this sense it is somewhat esoteric--if this term can be used without elitist overtones. There is another interest in this work, however, which is not as limited in its relevance. This interest is in reflecting upon the kind of knowledge which is acquired by modern science as compared to other kinds of knowledge. Although this reflection is relevant particularly to the philosophy of science--and to those scientists who wish to make philosophical claims--there are implications for other areas of inquiry which may seem threatened by modern science. Psychology, with its historical and contemporary emancipation from philosophy, is a good example of an area for which this reflection has implications. Again, ethics is often thought of as capable of producing merely opinion as compared with the precise and predictable knowledge of modern science. There are also implications here for religious knowledge and theological knowledge in particular. Let us explain this second interest in greater detail.

What degree of importance is to be bestowed properly on the

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[2]The term "science" here does not have the same connotation as that of modern science. The reference of "science" as contrasted to modern science will be explained below.

knowledge offered by the modern experimental sciences? What is the value of an explanation by modern science of the world in which we live? Does modern science have exclusive claim to the explanation of man and his world? Is an explanation of modern science to be esteemed above all other explanations? In other words, just what is the proper place of the knowledge offered by modern science? Again, what kind of knowledge is the knowledge of modern science?

The contemporary placement of modern science is in a rather prominent position. It is often assumed or contended that the knowledge of modern science is the only knowledge which is certain and explanatory of what there is. It is often assumed that if something is to be known with certainty, it has to be proved by modern science. It is more often assumed that that which is known by modern science is not to be disputed (except perhaps by scientists themselves). Modern science has acquired a great amount of authority with regard to the determination of that which is known and that which can be known. Not infrequently, one hears the phrase, in retort, "science has proven that . . ." with the implication being that knowledge which is not acquired by the method proper to modern science is incorrect if it is contrary to the knowledge of modern science. Or, if the knowledge in question is not contrary to modern science, the implication is that it is not as certain as the knowledge which is acquired by modern science. Similarly, the attitude is not uncommon that if one wishes to "get the facts" concerning some situation, or if one wishes to be as precise as possible, one's knowledge should be "scientifically proven." The implication often being that a greater degree of precision--attained by dealing with smaller and smaller parts of the situation and by being

more exact in one's sensible observations--results in a greater degree of certainty or reliability or truthfulness. Or, the attitude is not uncommon that man's knowing capabilities are the same, in kind, as the capabilities of computers. This is implied, for example, by the sense of relief that is often felt upon experiencing that a computer cannot produce something which can be produced by one's own mental activity. Besides the claims of superiority, there are claims of exclusiveness with regard to the method of modern science. It has been claimed, and it is a common attitude, that knowledge consists only of that which is acquired by relying on data which is accessible to modern science. In accord with the manner or method of modern science, it is not uncommon to deny, or at least to doubt, that whatever is not directly sensible (an object of sensation or of the senses) should be believed. Those that do believe in, or claim to have knowledge of, that which is not directly sensible, are often regarded as those who, for purposes of romanticism or whatever, irrationally refuse to be scientific and accept the world as viewed by modern science. Or, with a more general connotation, they may often merely be labelled as "mystics." A more sophisticated form of essentially the same denial or doubt as stated above is that unless something is subject to the imagination, it is not understandable or we do not have knowledge of it. That is, in order to have knowledge of something, it must be possible to construct imaginatively a model of that which is known. This position is usually not explicitly stated; however, it is implicit in the mechanism and materialism which is common in modern science. These are only a few, briefly stated, exemplifications of the authority which modern science possesses with regard to knowledge

itself, or with regard to that which is known or can be known. Further reflection would surely result in other instances. These, however, are sufficient here in order to draw attention to the prevalent influence of modern science.

Along with this prevalent influence of modern science the meaning of the term "science" has changed since the onset of the tremendous advances of modern science. The term "science" today refers almost exclusively to the experimental sciences which consist of biology, chemistry, and physics, along with their various divisions and overlappings. "The concept that Aristotle and the ancients had of it [science] is very different from the one that moderns have constructed because, for the latter, it is the eminent dignity of the experimental sciences, the positive sciences, the sciences of nature, the sciences of phenomena as we say, which appropriates the notion of science."[3] The knowledge of these sciences is bound to that which is sensibly observable. Scientific knowledge according to the ancient and medieval understanding of such, however, had requirements other than that of being knowledge of that which is sensible. In the following passage, Maritain gives two requirements for knowledge to be scientific knowledge, namely, that it be explanatory or that it offer the reasons for the existence of that which is known, and that it be necessarily truthful in its representation of that which is known.

> We would contend that science is a knowledge perfect in its mode, or more precisely a knowledge in which, under the compulsion of evidence, the mind points out in things their reasons for being. For the mind is not satisfied when it merely attains a thing, i.e., any datum whatever, but only when it grasps that upon which that

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[3]Jacques Maritain, The Degrees of Knowledge, (New York: Charles Scribner's Sons, 1959), p. 22.

> datum is founded in being and intelligibility. Cognitio certa per causas, as the ancients would say: knowledge by demonstration (in other words mediately evident) and explanatory knowledge. We see at once that it is a knowledge so rooted as to be necessarily true, that it cannot not be true, or is in conformity with what is. For it would not be a knowledge perfect in its mode, an infrangible knowledge, if it could be found false.[4]

The contemporary claims for and attitudes concerning modern science which place it in its prominent position can be explained in terms of this classical notion of science. It is often maintained explicitly or implicitly either that the knowledge of the experimental sciences has exclusive claim to, or is the epitomy of, knowledge which can be called scientific in this classical sense. That is, the knowledge of the experimental sciences is often considered to be the only kind, or the most proper kind, of knowledge which gives a certain explanation of man and the world in which he lives. For the ancients and medievals, however, other kinds of knowledge were capable of offering scientific knowledge or certain explanations of what there is.

The question can now be posed concerning the appropriateness--indeed, the correctness--of the prominent position given to modern science. Does the vast increase in the amount of knowledge which has been acquired by the experimental sciences warrant claims of exclusiveness or superiority? One purpose of this work is to show, through the work of Jacques Maritain, that such claims are not warranted and that such knowledge is only one kind of knowledge which has its proper place among other kinds of certain and explanatory knowledge. In other words, one intention is to inquire into the proper epistemological perspective of the knowledge offered by modern science, as this perspective is

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[4]Ibid., p. 23.

expressed by Maritain.

If modern science is placed in its proper epistemological perspective among all kinds of knowledge, or among all "degrees of knowledge," the implications of this realization can be recognized as being as pervasive as the influence itself of modern science. That is, the implications of this realization are relevant to all the attitudes, beliefs, habits, and values which have felt the influence of, or have been formed by, modern science. For example, it will be possible to recognize the problems, misconceptions, and unjustified assumptions which are involved in the instances given above of the influence and authority of modern science with regard to knowledge claims.

In order to fulfill this purpose, knowledge other than the knowledge of modern science will have to be examined, and will have to be defended as being scientific knowledge in a classical sense. Speculative knowledge--knowledge acquired for its own sake or in the name of truth--will be defended as scientific in the third chapter by the placement of knowledge offered by modern science among the other kinds of speculative knowledge. Practical knowledge--knowledge acquired for the sake of directing human actions or in the name of the good of man--will be defended as scientific in the fourth chapter by means of an example of practical knowledge, namely, moral knowledge or knowledge offered by ethical inquiries.

CHAPTER II

KNOWLEDGE IN GENERAL

In order to distinguish the subject matter of the present chapter from that of the following chapter, a distinction must be made between knowledge in general and scientific knowledge. The concern of this chapter is with knowledge in general, and the concern of the following chapter is that of scientific knowledge. We need to explain this distinction between knowledge in general and scientific knowledge before we proceed with the proper subject matter of this chapter.

If someone were to ask me if I knew of a person who would be willing and able to perform some task, I would know what it is that is desired. That is, I would know whether or not such a person existed among my acquaintances. If, however, someone were to ask me if I could provide information concerning just what a person is, a different kind of knowledge would be called into question. If able, I could provide biological information concerning man's position in the hierarchy of all other living things. Or, if able, I could provide theological information concerning man's relation to God. These two examples merely point to the distinction between knowledge in general and scientific knowledge, and we can elucidate the distinction which is only implicit in these examples.

Scientific knowledge, as previously defined,[1] consists of know-

[1] See above, p. 6-7.

ledge which is necessarily truthful in its representation of that which is known, and which is explanatory of that which is known. Knowledge in general can be defined as knowledge which fulfills only the former requirement of scientific knowledge, i.e., the requirement which deals with the certitude of knowledge of things other than the knower. It is not desirable to consider knowledge in general as non-scientific in this regard, for that would lead the way to a Kantian, or Platonic, position, for example, in which it is maintained that there is no certain knowledge of particular and contingent things other than the knower. As will become clear in the present chapter, it is fundamental to Maritain's Thomistic realist position that we actually do have certain knowledge of contingent and particular things.

Knowledge in general can be further defined in a preliminary way by saying that it does not fulfill the other requirement for scientific knowledge. Knowledge in general is not to be considered as knowledge which is explanatory of what there is, but rather, it is merely knowledge that something is. What is known by knowledge in general is the actual existence (being) of something other than the knower, or the being which is exhibited by actually existing sensible things. We might say that knowledge of this kind merely answers the question of whether or not something exists. Scientific knowledge, on the other hand, not only answers the question of whether or not something exists, but also answers questions concerning what that something is.[2]

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[2]Something like the following objection might be raised here. We would generally consider the knowledge expressed by the phrase "this page is white" to be common sense, "everyday" knowledge. This knowledge however gives partial explanation concerning what "this page" is, and

A further distinction can be made between knowledge in general and scientific knowledge in terms of the processes of abstraction by which they are acquired. The activity of knowing, considered in general, involves a process of abstraction which has traditionally been called "abstractio totalis," or abstraction as it is applicable to all acquisitions of knowledge. Maritain refers to abstraction by the term "intellectual visualization," and correspondingly refers to total abstraction by the term "extensive visualization." He explains extensive visualization as follows.

> At first intellectual visualization is as yet only extensive. That is to say, its object is not explicitly the type or essence abstracted by and for itself, in Platonic terminology the supertemporal form in which objects partake. No doubt the essence is there, but contained in the notion after a fashion wholly implicit or blind, as it were hinted, not such that thought can employ or handle it. What the intellect expresses to itself and explicitly visualizes is simply an object of thought, . . . Contact has been made with the intelligible order, the order of the universal in general; but nothing more. The first step has been taken by which we leave the world of sensible experience

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thus it is not merely knowledge "that something is." So according to the distinctions made here, the knowledge expressed by the phrase "this page is white" would be scientific knowledge. In order to retain these rather general distinctions, which are made for the sake of convenience and orderliness of discussion, let me respond by saying that this objection simply points out some overlap of what can be placed in each "catagory," i.e., what would be called scientific knowledge, according to these distinctions, may be so elementary or primitive as scientific knowledge that it may also be considered a matter of common sense. Consider these more obvious examples: "frogs are animals" is a very primitive biological classification and it is also generally considered to be a matter of common sense; "a triangle has three sides" is a very primitive bit of mathematical knowledge, and it is also generally considered to be a matter of common sense. Thus, in this line, we might say that "this page is white" is a very primitive aesthetic explanation of this page. In order to retain these distinctions then, let us accept the knowledge expressed by examples such as these as scientific knowledge, however primitive, and let us accept that knowledge in general is here restricted to our concepts of "page," "whiteness," "frogs," "animal," "triangle," "three," "side," etc.

and enter the intellectual world.[3]

Let us take an example such as our knowledge expressed by the term "person" in order to obtain greater clarity. Our knowledge expressed by the term "person" which is acquired through *abstractio totalis* is merely knowledge which enables us to distinguish a person from an ape for example. It is knowledge of personhood to the extent that it enables us to point to our neighbor and say "this is a person." The essence of the person pointed to in this instance, that which composes personhood, is not explicitly known, but rather remains implicit in the knowledge which enables us to "point to" a person. Knowledge in general, acquired by *abstractio totalis* is knowledge of examples, or is knowledge adequate to the giving of examples of what is known. Here the knowledge of the essence of a person, knowledge of *what* a person is, remains implicit in the knowledge which enables one to give an example of a person.

There is a second kind of abstraction by which scientific knowledge is acquired. This kind of abstraction has traditionally been called "*abstractio formalis*." By means of this kind of abstraction, knowledge passes beyond the rather simple knowledge in which the essence of that which is known remains implicit, to a knowledge of the essence of the thing known. Maritain prefers to refer to *abstractio formalis* as "intensive visualization." By means of this kind of abstraction "we make contact with the order of the *universal type* and *essential* intelligibility and the typical form is explicitly abstracted and laid bare." In this kind of abstraction "the mind separates from

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[3]Jacques Maritain, *A Preface to Metaphysics*, (New York: The New American Library of World Literature, Inc., 1962), p. 77.

the contingent and material data the essence of an object of knowledge, that which formally constitutes it. This intensive or typifying visualization is the beginning of scientific knowledge, knowledge in the strict sense," i.e., knowledge of the necessary intelligibilities of things.[4]

Maritain's account of knowledge which will be explicated in the present chapter is an account of knowledge in general. The solution to the problem of knowledge which this account offers centers primarily on the formation of concepts of that which sensibly exists apart from the knower. That which sensibly exists apart from the knower will be seen to be the basis for the formation of concepts, and will be seen to be the criteria for the verification of concepts. In other words, that which sensibly exists apart from the knower will be seen to be the starting point of concepts and the point of verification of concepts. Throughout the development and verification of concepts, then, the involvement of that which is, the involvement of being, will become apparent.

Where to Begin--Idealism Versus Realism

As indicated previously[5] Maritain's Thomistic account of knowledge, or solution to the fundamental problem of knowledge, disagrees with idealist[6] accounts in that it maintains that knowledge is depen-

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[4]Ibid.

[5]See above, p. 2.

[6]The term "idealist" here has no reference to romanticism or to those who are prone to eternal optimism. Rather, it is used as a generic term which refers to those philosophers who begin epistemological inquiry with ideas rather than with the sensible things of the world existing apart from the knower.

dent upon particular and contingent being which is other than the knower; and furthermore, it is contrary to idealist accounts in that it maintains that knowledge, necessary and universal knowledge, actually is knowledge of particular and contingent being other than the knower. In view of this fundamental difference between idealist's and Thomistic realist's accounts of knowledge, let us begin our examination of Maritain's solution by considering the initial dependence of knowledge on particular and contingent being which is other than the knower, as this initial dependence is in contrast to the starting point of idealist's accounts.

In Maritain's view, an account of knowledge, or a "critique of knowledge" as he prefers to call it, is an activity of reflecting upon knowledge which has already been acquired. It is not an activity which begins by accepting as known only that which is a product of reflection upon knowledge.

> It is absurd to demand that philosophical thought begin, even before it knows anything validly, by proving that it can know (for it could only do so if it did know). It is absurd to suppose at the very start that anything which cannot help but be judged true by the mind can, as a result of some evil genius, not be true, so that then that self-same mind might be asked to show that, as a matter of fact, it is not so. It is absurd to admit that the mind could only attain phenomenal objects and then ask it to prove that such objects are extramental realities.[7]

The absurdities of which Maritain is here speaking can be grouped under the heading of idealism. Much of Maritain's criticism of idealism is directed towards Descartes, whom he considers not only to be the father of modern philosophy because of the influential changes (indeed, the fundamental reversals in the ancient and medieval structure of philo-

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[7]Maritain, The Degrees of Knowledge, p. 74.

sophical knowledge) which he brought about, but also to be the father of the greatest errors of idealism in modern accounts of knowledge.

The most fundamental error of Descartes and subsequent idealists is the point at which they begin an account of knowledge. Such a starting point might be stated in general as an act of knowledge about knowledge. In Descartes the starting point is the cogito. This starting point is absurd, according to Maritain, because it is not in accord with our first apprehensions, namely, that something exists. It is not in accord with what has been called a primary "judicative intuition of being," or an immediate and direct apprehension that things other than ourselves are.[8] Any kind of Cartesian cogito is absurd as a starting point of an account of knowledge because one "cannot think about a 'thought thing' until after one has thought about a 'thinkable thing.'"[9] In starting with a Cartesian cogito one is starting at the wrong end so to speak. That is, rather than starting realistically with the acceptance of the things about which we have primary and direct knowledge and then giving an account of the process involved in acquiring such knowledge, Descartes starts with an act of knowing about knowledge and then attempts to connect that act with things other than the knower. Cogito, ergo res sunt is the very antithesis of scholastic realism which starts with the res.[10] Maritain points out[11] that

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[8]Oliver Lacombe, "Jacques Maritain Metaphysician," The New Scholasticism 46 (Winter 1972): 20.

[9]Maritain, The Degrees of Knowledge, p. 108, (italics mine).

[10]Ibid., p. 71.

[11]Jacques Maritain, The Dream of Descartes, (Port Washington, N. Y.: Kennikat Press, 1969), pp. 35-6.

one of the two important truths[12] which Descartes pointed out is the old truth stated by the command, "Go back into thyself and into the spiritual element which is within thee." The problem here is that this truth, and consequently the first revelation which adhering to this truth brought to Descartes, namely his cogito, is not to be the starting point of an account of knowledge but is to be recognized as a part of the process of acquiring knowledge. In the process of retreating into himself in his method of doubt, Descartes failed to adopt the natural starting point of the senses and of what is sensed.[13]

Contrary to the place of any kind of Cartesian cogito in an idealist account of knowledge, Maritain maintains that such knowledge is secondary and not primary; and even as secondary it is not cut off from being in the form of extramental things. Our primary knowledge is knowledge of the existence of things other than ourselves, i.e., knowledge of extramental existents. This knowledge might be termed common sense knowledge, or knowledge acquired prior to reflection upon that knowledge. This knowledge is primarily oriented to sensible objects which are independent of the knower, i.e., the origins of human knowledge are in sensory perceptions.[14] A critique of this knowledge, or an account of the process of acquiring this knowledge is second-order knowledge, or knowledge of knowledge. A critique of knowledge consists of reflective knowledge, or a knowledge which is acquired by reflecting

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[12]The other truth, namely, the possibility of a physico-mathematical science, will be dealt with in the next chapter.

[13]Maritain, The Dream of Descartes, p. 39.

[14]John J. FitzGerald, "Maritain's Critical Realism," in Jacques Maritain: The Man and His Achievement, ed. Joseph W. Evans, (New York: Sheed & Ward, Inc., 1963), p. 59.

or by turning back upon the mind's previous work of knowing things other than itself. Thus, a proper critique of knowledge does not begin by doubting the existence of extramental things and then attempt to deduce an account of knowledge of extramental things from a supposedly primary act of knowing about knowledge. Rather, a proper critique of knowledge begins by accepting as immediately evident, not that I think, but that I know that something exists, (scio aliquid esse), and then gives an account of the process which makes this knowledge possible.[15] In the process of reflecting on the primary activity of knowing, the actual starting point of all knowledge is determined to be knowledge of the existence of things other than the knower. This experience of knowing, established upon reflection as prior to that reflection and as the starting point for that reflection, i.e., for the critique of knowledge, can be expressed as follows: "I am aware of knowing--I am aware of knowing at least one thing, that what is, is; not I think."[16] Irrefutable evidence of this experience (knowledge) of extramental things being the actual starting point of a critique of knowledge is supplied, according to Maritain, by the principle of identity.

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[15]It is appropiate here to note what Maritain says about the so-called naivete of accepting such immediate evidence. "Let us note parenthetically, naivete and the superstitious fear of being naive are the two foes of a sound critique. Insofar as philosophy is a wisdom, it has to verify its organs and instruments in proportion to its advances. It should accept nothing from nature or culture without examining and judging it for itself. But to claim 'to justify itself from its very roots' and to accept nothing whatever from nature, to make the passage to the world consist in its being verified, these contentions shut philosophy up in a pure artificiality that is much the worst kind of naivete, for it is the naivete of the professor. That is what those philosophers do who apply themselves in this fashion to the task of 'putting an end to all naivete' so that one often wonders how they could have been born." The Degrees of Knowledge, pp. 82-3.

[16]Maritain, The Degrees of Knowledge, p. 76.

When one accepts as immediately evident that what is, is, one is acknowledging already a reference to things other than the knower. Thus, even in the immediately evident principle of identity there is not a limitation of what is known to a simple cogito. The principle of identity thus provides a necessary connection between the mind and things.[17]

In Maritain's starting point of knowledge, namely, I know that something exists--scio aliquid esse--two meanings can be distinguished which involve the distinction between primary, direct knowledge and its starting point, and secondary, reflexive knowledge (knowledge of the critique) and its starting point. In the statement, "I know that something exists," one can intend to convey that something exists, or one can intend to convey that one knows such. When referring, as in the former case, to the fact that something exists, one is referring to the starting point of one's first and direct knowledge of extramental things, i.e., one is referring to the starting point of all knowledge, or to the "starting point of philosophy as a whole." When referring, as in the latter case, to the fact that one knows such, one is referring to the starting point of one's secondary, reflexive knowledge of knowledge of extramental things, i.e., the starting point of a critique of knowledge.[18] In other words, one is referring to the secondary reflexive activity of making explicit (coming to know explicitly) what was only implicit in the direct knowledge that something exists. It should remain clear that Maritain's starting point of the critique is in no way a Cartesian cogito, cut off from extramental things, for in emphasizing the I know in order to indicate the starting point of the

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[17]Ibid.

[18]Ibid., p. 76-7.

critique, as reflective knowledge of knowing, it yet remains the case that the critique consists of acquiring knowledge of what is involved in knowing that something exists. In either case the starting point is not the knower but is that which is other than the knower. As Maritain states:

> The position we are defending should be clear. Inasmuch as the intellect primarily bears neither on itself, nor on the ego, but on being, then the very first evidence (I mean first in the order of nature, I am not talking about the chronological order, in which, what is first in itself is often only implicit), the evidence that is first in itself for the intellect, is that of the principle of identity 'discovered' in the intellectual apprehension of being or the real.[19]

Other differences between a Thomistic account of knowledge and an idealist account can be seen to follow from the fundamental difference in starting points. Maritain presents the following two.[20] First, since that which is known is the existence of extramental things, an attempt at universal doubt concerning such things (or a "'bracketing' of all certitude about the being of things") is not in order. Obviously, when one accepts the primacy of knowledge of the existence of extramental things, i.e., the knowledge of such before a reflective critique of that knowledge, one rules out the legitimacy of adopting the method of initially doubting the existence of such things in order to account for knowledge of such things.

Secondly, Descartes and others (notably Husserl) consider a critique of knowledge to be a prerequisite to any future philosophical inquiry. That is, in order to engage in other inquiries we must first be certain about the possibilities of knowledge. Here again the star-

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[19]Ibid., p. 77.

[20]Ibid., pp. 78-80.

ting point is assumed not to be a prior knowledge of the existence of extramental things. When one accepts on the other hand, in accord with Thomistic realism, that the "being of sensible things" is what is first known, one also realizes that a critique of knowledge "presupposes a long effort of knowing" prior to such reflective activity.[21]

Thus a Thomistic critique of knowledge is different from every idealistic critique with regard to the point at which such critiques start (simply stated as being or existence, as opposed to knowledge), and involved in this difference are differences with regard to the method employed and the connections a critique of knowledge has with other intellectual inquiries.

An Account of the Formation of the Concept

Thing as Thing and Thing as Object

In order to begin an account of how the acquisition of knowledge of extramental things is possible, Maritain begins with an examination of the relation and differences between the extramental thing in itself (thing as thing) and the thing as part of the intellect (thing as object).

The thing as thing is to be understood as that which exists or is able to exist for itself. It is the material object in Thomistic terms. "What characterizes any thing as thing is its being what it is and existing as such apart from its originating cause or causes," i.e., it exists when the initiating causes are no longer present.[22] This existence of the thing up to now has been called "extramental"

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[21] Ibid., p. 79.

[22] FitzGerald, "Maritain's Critical Realism," p. 61.

existence of the thing. Maritain also uses the terms "premental, i.e., preceding the knowledge we have of it," and "metalogical" existence, in that the thing as thing does not belong to "that which is properly constituted by the life of reason."[23] The thing as object is to be understood as that which exists as known or considered in the realm of intelligibility. It is the formal object in Thomistic terms. It is that which belongs to the order of the known as known.[24]

Here again, the work of Descartes is seen to be the initiator

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[23]Maritain, The Degrees of Knowledge, pp. 91-2. Maritain also points out in this connection that extramental existence is intended to refer not only to actual extramental existence, but also to potential existence of the thing as thing. The reason for this involves an understanding of the notion of judgment which follows from the relation of the thing as thing and the thing as object. That is, we can not only judge concerning what actually exists, but also what can possibly exist. Maritain states that "our intellect, in simple apprehension, abstracts from existence in act and in its judgments it does not only judge of that which exists but also of a thing that can or cannot exist." He adds a concise insight here when he says that many modern accounts of knowledge confuse that which is possibly real, or potentially extramentally existent, with a being of reason--an object of the intellect which is incapable of extramental existence but which is constructed from that which can or does exist extramentally--and consequently consider the "actual real" or actual extramental existence as the only real.

[24]In this connection Maritain offers what he considers to be more pedantic terms for distinguishing the knowing subject and the thing in order to avoid being suspect of a "vulgar tongue." In giving these terms he also hints at doctrines to come such as knowing consisting of being that which is known, and the identity, as far as that which is known, of the formal object and the material object. He says that he "will say that just as the object is the correlative of a knowing subject, an ontological 'for itself,' to which it shows itself and which, by reflecting upon its own acts of thought immediately perceives . . . the fact of its own existence--we may call this the cisobjective subject--it is also not correlative to, but inseparable (because it is itself) from, an ontological 'for itself' which precisely takes the name 'object' [thing as thing] from the fact that is presented to the mind and this we may call the objectifiable subject or transobjective subject--not, certainly, because it is hidden behind the object [here meaning object as known, or thing as object] but, on the contrary, because it is itself grasped as object and yet constitutes something irreducible in which the possibility of grasping new objects always remains open." Maritain, The Degrees of Knowledge, pp. 93-4.

of that to which Maritain is so much opposed. In Descartes and subsequent idealists, what is here called the object is cut off or "de-related"[25] from the thing in which it does or can exist. "The tragedy of modern noetic began when the scholastics of the decadent period--with Descartes in their wake--separated the object from the thing; from that point on, the thing became a problematic 'lining' concealed behind the object."[26] The allusion to Kant's de-related phenomena and noumena (or, if related, unknowably so) is here evident also. This "de-relation" occurred in order to account for necessary and universal knowledge. If the object is taken as such, i.e., separate from any extramental thing, then one will either have to reconstruct the thing starting with the object, as Descartes attempted to do (whereas Kant concluded that it really didn't matter whether or not the phenomena was related to the noumena), or one can attempt to "reabsorb the thing and its existentiality into transcendental subjectivity," as Husserl attempted to do.[27]

It is appropriate to add here that the extramental thing is a singular existent, individualized by matter. It is, for example, my next door neighbor who exists for himself with all his accidents which place him in a particular spatio-temporal situation. The thing as object on the other hand is abstracted from such existence and is universal, as evidenced by the fact that our knowledge of "man" is in-

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[25]I use the term "de-related" here in view of Aquinas' account being prior to Descartes.

[26]Maritain, The Degrees of Knowledge, p. 91.

[27]Ibid., p. 93.

clusive of our knowledge of both Socrates and Plato for example.[28]

Rather than separating the thing as thing and the thing as object, Thomistic realism maintains that they are distinguishable only with regard to their mode of existence. They are not two different knowables. This is fundamental in proceeding from the thing as thing to the concept, i.e., it is fundamental to the retaining of being, other than the knower, or to the retaining of that which is and is other than the knower, as that which is known. The thing as object, which exists as known, is abstracted from the actually existing thing as thing and as such has a potential extramental existence (it obviously has an actual intelligibility). The thing as thing, on the other hand, possesses actual extramental existence and potential intelligibility. Thus the thing as thing and the thing as object are one thing that is known even though its existence as known is different than its existence apart from being known. Although somewhat contrived, it might be stated that the thing as thing is knowable, i.e., it is the same as the thing as object because of its potential intelligibility which is actualized in the thing as object; and that the thing as object is "existable," i.e., it is the same as the thing as thing, because of its potential

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[28]This point is in contrast with the position of empiricism on this matter. In attempting to account for knowledge of particular and contingent things, it was maintained that the mental existence of that which is known includes the contingencies and particularities of the natural existence of that which is known. Evidence of this is the position on abstraction of Berkeley and Hume in which it is maintained that "general ideas" are actually particular ideas, i.e., images or ideas of one particular thing, which are called upon to represent all other similar things. (The obvious question here concerns how it is known that the particular idea or image chosen is representative.) This position rests on the incorrect assumption that concepts are limited to images, or to representations of that which can be sensed. See Hume's A Treatise on Human Nature, L. A. Selby-Bigge, ed., (Oxford: The Clarendon Press, 1968), pp. 17-25, and Berkeley's, Principles of Human Knowledge, sections 1-19.

existence which is actualized in the thing as thing.[29] Maritain states:

> that if we admit that the mind does truly attain an object that is valid for itself and by which the mind is measured, we should also, and to the same degree, admit that it attains a thing (be it actual or possible), a transobjective subject, which is one with that object.[30]

And again:

> But what is capital in this regard is that while existing in two different states (I^o in the concept, in a state of abstraction and universality which allows it to be handled, divided, compared by the mind, and to enter into the concatenations of discourse; 2^o in the thing, in a state of individuality and concreteness), nevertheless the object and the thing do not constitute two known terms, two quod's, but only one. One and the same term of knowledge, one and the same quod, exists for itself as thing, and is attained by the mind as object.[31]

Thus one does not have to exclude either the thing as thing or the thing as object from that which is known. We do not have to choose either one or the other as that which is known. What we have then is one thing which is known. This one thing which is known exists both extramentally as a singular existent, in itself--the material object--and in the mind as abstracted and universal--the formal object.[32]

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[29]This is contrary to Platonism, idealism, and empiricism, all of which incorrectly assume that the manner of existence of the thing as known must be the same as the manner of its natural existence. Thus, Plato developed the necessary and universal Forms as that which is known; Kant, for example, developed the phenomenal world of things as they appear to us; and Berkeley and Hume, on the other hand, relegated knowledge to imaginable constructs of things which included the particularities and contingencies of things.

[30]Maritain, The Degrees of Knowledge, p. 94.

[31]Ibid., p. 121.

[32]Maritain reproduces an objection (The Degrees of Knowledge, p. 94), given by Fonsegrive, to this fundamental tenet concerning the identity of the thing as thing and the thing as object with regard to that which is known, and he also gives J. de Tonquedec's reply. This objection and reply seem significant enought to me to reproduce them again. "'The concept of an object that would at the same time

Intentionality and the Species

We have been considering knowledge in its relation to extramental being, and this so far has involved the distinction and relation between the thing as object and the thing as thing. As indicated above, the thing as thing and the thing as object are distinguished with regard to their modes of existence. We must now consider the mode of existence which is proper to the thing as object, or the mode of existence of that which is known considered as actually intelligible. This discussion will lead to a more complete understanding of that which is actually intelligible, i.e., that which is actually intelligible will be seen to involve the concept, considered in its intentional function, as species. Thus, this discussion will lead to a more complete understanding of the relation between that which is actually intelligible and that which is potentially intelligible, i.e., the thing as thing. In other words, we now move to a consideration of the formation of the concept on the "side" of intelligibility.

For Maritain the concept has two functions; first, its entita-

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exist in itself and be the object of knowledge is quite clearly contradictory. . . . For, to speak of the object of knowledge is to speak of the thing as known. . . . Now, it is only too clear that the known does not exist in itself, since it exists as thing known' (Essais sur la connaissance, p. 186). J. de Tonquedec correctly replies: 'This rather formal argument proves only one thing: the fact of existing in itself is different from the fact of being known. But because the one is not the other, it does not follow that the one excludes the other. The concepts are different but it is not 'quite clear' that they cannot be realized together and in the same being. By pitting abstractions one against the other in this way it could just as well be proved that the 'concept' of a moon that was at once round and shining 'is clearly contradictory' because the moon is not round insofar as it is shining' (J. de Tonquedec, La critique de la connaissance, p. 32, note)."

tive function in which it is considered as a modification of the knower, and second, its intentional function in which it is considered as a formal sign of that which is known. Since our aim here is to consider the concept in its relation to the thing known, we will thus be considering the intentional function of the concept. (Its entitative function will be readily understandable in the process.)

It has been pointed out that the thing as object is part of the realm of intelligibility. That which is potentially intelligible in the thing as thing comes to be actually intelligible in the knower as the thing as object. This points to an important tenet of Maritain's account of knowledge. According to such, knowing involves an acquisition, on the part of the knower, of that which is other than the knower, (of course, that which is acquired, is acquired immaterially). Knowing involves the knower coming to be other than what he is, i.e., the knower actualizes in his intellect something other than what he is.[33] As Maritain states, "to know is to be in a certain way something other than what one is: it is to become a thing other than the self, . . . to be or become the other as other."[34]

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[33]The entitative function of the concept can be understood in connection with this assimilation of the knower and the known. In such assimilation the knower (the intellect of the knower) acquires greater actuality and the concept can be considered as an accident or modification of the knower.

[34]Maritain, The Degrees of Knowledge, p. 112, see also Jacques Maritain, The Range of Reason, (New York: Charles Scribner's Sons, 1952), p. 12. In this connection one can readily understand the following two points in a Thomistic account of knowledge. First, that knowledge adds to the existence of the knower, i.e., it increases the actuality of the intellect. "Knowing is an active, immaterial super-existence whereby a subject not only exists with an existence limited to what that subject is as a thing enclosed within one genus--as subject existing for itself--but with an unlimited existence in which by its own activity

It would appear initially that this would compromise drastically the distinction between the knower and the known. How can it be the case that the known is distinct from the knower and yet be a part of the knower? The solution to this apparent problem is provided by the notion of intentional existence. By distinguishing between natural existence and intentional existence, and then by maintaining that the known intentionally exists in the knower, one can yet maintain that the knower and the known in their natural existence are distinct. Natural existence can be understood as the positing of a "thing outside nothingness for itself and as a subject."[35] In this natural mode of existence the knower and the known are other to each other. Or, there is an "ontological diversity" between the two.[36] Intentional existence however, is to be understood as "an entirely tendential and immaterial existence" in which something exists "for another thing and as a relation" and does not exist for itself.

> The same things, in this view, may and do occupy two universes, a universe of knowledge and a universe of existence. They exist both outside of the mind by their esse naturae and at the same time within the mind by their esse intentionale. Since human knowledge involves inseparably but distinctly the object known and the subject knowing, it may be described, on the part of the thing known, as the process in and through which the thing acquires an esse intentionale, and on the part of the subject knowing, as the process in and through which the subject confers on the things an esse intentionale, or simply the process of immaterializing things.[37]

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it is and becomes itself and other things." Secondly, that knowing does not consist of the production or the making of anything, but consists essentially of being something. The Degrees of Knowledge, pp. 113 & 117.

[35]Ibid., p. 114.

[36]FitzGerald, "Maritain's Critical Realism, p. 67.

[37]Ibid., p. 68.

It has been said above that the thing as object has a potential existence in extramental things. We have now said that that which is known intentionally exists in the knower. What is the difference in meaning here? In stating the former, what is being referred to as having potential existence in extramental things is exclusively that which is the object of knowledge or that which is known. In the latter case it is also that which is known which is now given intentional existence. But there is another "aspect" of actual intelligibility which intentional existence implies, namely, the intentional function of that which is actually intelligible. In other words, intentional existence implies reference to the fact that that which is actually intelligible is not only that which is known (as known), but also is the means by which something is known; and thus, that which is actually intelligible is the means by which the known becomes intentionally part of the knower. That which is actually intelligible when considered as such, i.e., as the means by which the knower assimilates himself to the known, (resulting in the intentionally existing known) is termed, in Thomistic language, the "species," or what Maritain calls the "presentative form."[38] The species, or presentative forms, in that they are the means by which something is known, are formal signs of something known and not instrumental signs of something known. That is, they are signs whose whole essence is to make known something else and are not known themselves; and they are not signs which are themselves first known, and being known, then make known something else.[39]

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[38]Maritain, The Degrees of Knowledge, p. 115.

[39]Ibid., p. 119.

"Thus, presentative forms, concepts in particular, are pure means of knowing; scholastics called them objectum quo, mental objects by which knowledge takes place. What is known through these immaterial species, they called objectum quod, the object which is known."[40]

We are now presented with an apparent problem, namely, that which is actually intelligible is both that which is known--the thing as object, the formal object--and, is that by which something is known--the species or presentative form, the formal sign. It will be remembered that the thing as object--that which is known, the quod--was described as actually intelligible and potentially existent in extramental things. On the other hand when it is said that that which is known exists intentionally in the knower, we are referring, because of the nature of intentionality, to more than the quod which exists intentionally. We are referring also to the fact that that which is actually intelligible is that by which something is known. In other words, the presentative forms, or that by which something is known, is now also seen to be that which is actually intelligible. How can that which is actually intelligible be both that by which something is known, and that which is known? In still other words, it would seem that, on the one hand, the species and the object as known are identical in that they are that which is actually intelligible; and on the other hand, it would seem that they are distinct in that the former is a sign of the latter.

This problem has been raised and presented to Maritain by Father Roland-Gosselin. Maritain represents this objection as follows.

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[40]Ibid., p. 121.

> If, precisely in respect to the intelligible elements delivered to the mind in the act of understanding,[3] there is an identity between the essence, attained as object, and the concept in its intentional function, how, asks Father Roland-Gosselin, can the concept be a formal sign? To him 'it appears impossible to aim to fuse into one' these two principles of solution. In short, he thinks that 'a choice must be made between relation of identity and relation of sign.[41]

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[3]It is quite clear, as Father Blanche has so well noted (Bulletin Thomiste, Nov. 1925, p. [5]), that it is only from this point of view that we say the presentative form and known object constitute but one nature.

In other words, the following is being asked. If the presentative form, or "the concept in its intentional function" and that which is known, or "the essence, attained as object," are identical in that they are that which is actually intelligible, or in that they are "the intelligible elements delivered to the mind," then how is it possible for the presentative form to be a formal sign of that which is known?

Maritain finds the solution to this apparent problem given by John of St. Thomas. This resolution essentially involves a clarification of the nature of a formal sign. As a formal sign, the species is not itself known, but is purely that by which something is known. The species may of course "become the object of knowledge reflexively, and thanks to the production of a new concept,"[42] but as a formal sign they are not themselves known. "The concept must be a formal sign, i.e., precisely as species it must be nothing but sign; it is a pure 'maker' known,'"[43] In order to be a formal sign, and thus in order to contain nothing in itself which can be known apart from that of which it

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[41]Ibid., p. 387.

[42]Ibid., p. 120.

[43]Ibid., p. 388.

is a sign, the species must be an exact replica of that which is known, considered as the formal object. "We claim that it [the concept as species] is the very likeness of the object, the very similitude and the pure similitude of the thing understood. . . . Thus, we claim that the concept is 'identical' with the object, in reference to the intelligible constituent or quidditative traits."[44] (It will be remembered that the formal object is not an exact replica of the material object, even though, as pointed out in the previous section, they are one thing which is known. This is so because the formal object is an immaterial, and actual intelligible, abstracted from that which is potentially intelligible in the thing as thing. Thus, the absurd result of an exact replica of the thing as thing existing materially in the mind is avoided.) The species "therefore must consist in being a pure representer or vicar of the object, possessing no trait of nature, no quidditative note, that is not a note and trait of the object. There is the relation of 'identity' demanded by the relation of sign itself."[45] We might say that as a formal sign, the species is the sign of that which is known, and that which is known is here intended to include the formal object and the material object. On the other hand, as part of an identity, the species is identical with the formal object only, since the identity is "in reference to the intelligible constituent or quidditative traits," or that which is actually intelligible. Thus, the species is a sign of that which is known and as such it "differs from the object signified in that [the] object exists or can exist not only

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[44]Ibid.

[45]Ibid.

in the mind, where it is known, but also extra mentem in esse naturae as identical with the thing (from which it is not really distinct), while the concept in its very function of species, exists in esse intentionali."[46] The species is also, considered as that which is actually intelligible, identical with that which is known because it is a formal sign of that which is known, and can thus consist of nothing more than what is contained in that which is known as it is actually intelligible.

Thus we can see that that which is actually intelligible is to be considered as more than just the formal object having potential existence in extramental things. That which is actually intelligible is also to be considered as intentionally existing in the knower and as such it fulfills the intentional function of the concept, i.e., it is considered as the presentative form, or species, which is the means by which something is known.

We have thus far progressed in this account of the formation of the concept from the extramentally existing thing as thing to the species which performs the intentional function of the concept. That which was potentially intelligible has acquired actual intelligibility (and consequently the intellect has acquired greater actuality on account of the assimilation of the knower to the known).[47]

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[46] Ibid.

[47] It can be added that the concept acquires actual intelligibility not only as the species or formal sign--this may be considered its first actuality--but it also acquires actuality--its final act--as the expression or mental word of the formal sign. "To this initial interior determination or actuation, [the presentative form] it [the intellect] responds by producing within itself a concept, the expressed intelligible species, in and through which it raises the object to the peak of intelligible formation and actuality, and thus comes itself to

Now that we have acquired an understanding of the concept in terms of its intentional function (and in the process, in terms of its entitative function), we can proceed back in the "direction" of the extramental real by considering the verification of the concept.

The Returning Verification in Things

A verified concept is intended here to refer to a concept which is judged to be true. What does it mean for a concept to be judged as true? The Thomistic notion of truth, which Maritain adopts, consists of a conformity between the mind and the thing. Truth is the "'conformity of the mind with being, according as it says that what is, is, and that what is not, is not.'"[48] A true judgment is made when it is judged that the concept--which, as we have seen, refers to the thing of which it is a formal sign--not only refers to the thing, but accurately refers to the thing, or when it is adequate in its reference to the thing. Thus, the criteria for truthful judgments concerning concepts is being or that which is. In our judgments of what is or is not, which are based on our concepts, we are thus returning to being which is other than ourselves. We are returning to that which our concepts refer in order to verify the adequacy of our concepts. The function of judgment then is to make the mind "move" from its concepts to the thing as actually existing which is represented by the concept. In making a judgment, the knowing subject "restores to the thing as encountered in his actual experience what, in conception, he has separated or ab-

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be in final act the object." FitzGerald, "Maritain's Critical Realism," p. 70.

[48]Maritain, The Degrees of Knowledge, p. 88.

stracted from it," namely, its actual existence.[49] Thus, for example, I can make the simple judgment expressed by saying "this page is," or I can make the more complex judgment involving two concepts and expressed by saying "this page is white."[50] In either case, I am referring to that which is other than my concept, and I am affirming on the basis of that which is other than my concept--this page, or this white page--that my concept is in conformity with what is.

Maritain's notion of judgment, in which the data originally started with now serves as the criteria for the verification of the concepts, is in prominent contrast with idealist's notions of judgment. Let us conclude this section by briefly considering the important differences between Maritain's notion of judgment and those of Descartes and Kant.

The process of judgment occurring sequentially is called reasoning, and it can be understood that reasoning in a Thomistic account of knowledge is a laborious task of attaining true knowledge. A view which is drastically opposite is again that of Descartes. Maritain sees in Descartes the rejection of the scholastic process of reason and the replacement of such by a means of discovery in which all knowledge is the result of direct intuition producing clear and distinct ideas which do not have to be judged with regard to their conformity with things other than the knower.

> Descartes saw then, . . . a means of discovery incomparably more powerful than reason heavily armed and the logic of the phi-

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[49] FitzGerald, "Maritain's Critical Realism," p. 63

[50] "And what is judgment if not an act by which the mind asserts that a predicate and a subject, which differ in notion or in their intramental existence, are identical in the thing, or outside the mind?" Maritain, The Degrees of Knowledge, p. 97.

> losophers. We know, moreover, that Cartesian reason with its immediate knowledge of 'simple natures,' its innate ideas, its atoms of evidence, its claim to replace syllogism with a succession of discontinuous intuitions, and its quasi-Platonic attempt to reduce demonstration to the transcendental unity of a non-discursive intellection--briefly, with its angelic ambitions, had to remain something entirely different from the classical reason recognized in the human being by Aristotle and the Schoolmen.[51]

In the following passage also, Maritain accuses Descartes of attributing an angelic intellect to man in that Descartes desired to reduce all thought to intuitions--direct and simple perceptions--with the result that the process of reasoning which involves the intellect and the things other than the knower, is excluded.

> What does this mean, but that the sole authentic and legitimate archetype of Knowledge is, for him, angelic Knowledge? The angel neither reasons, nor proceeds by reasoning: he has but one intellectual act, which is at once perceiving and judging: he sees consequences not successively from the principle, but immediately in the principle; he is not subject to the progressive actualization of knowledge which constitutes logical movement properly so called; if his thought travels, it is by intuitive leaps, from perfect act to perfect act, from intelligible fullness to intelligible fullness, according to the discontinuity of wholly spiritual time, which is not a succession of instants without duration, but the permanence of a stable instant which lasts motionless so long as it does not give place to another motionless instant of contemplation. That is the ideal limit, the pure type of reason conceived in the manner of Descartes.[52]

The difference between Maritain's notion of judgment and that of Kant results from the fundamental difference with which we began, namely, the difference between starting points of knowledge. Because of Kant's "de-relation" of the phenomenal and noumenal worlds, there is no possibility in his system of returning to the noumenal world for the verification of concepts. Judgment thus becomes for Kant a synthe-

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[51]Maritain, The Dream of Descartes, p. 24.

[52]Jacques Maritain, Three Reformers: Luther, Descartes, Rousseau, (Port Washington, N.Y.: Kennikat Press, 1970), pp. 59-60, (italics mine).

sis of concepts. When I make the judgment expressed by the statement "this page is white," the judgment consists of the synthesis of the concepts expressed by the words "page" and "white." There is no reference in this judgment to the actual conditions of the noumenal world. This position is in obvious contrast with Maritain's notion of judgment in which judgments cannot be made without the involvement of that which is other than the knower as the criteria used in judgments.

We can now understand that, according to Maritain's critical realist solution to the problem of knowledge, conceptualization, proper to knowledge in general, begins with, or has its starting point in, things other than the knower from which a thing as object becomes part of the intellect in intentional existence, and finally this intelligibility moves back toward things other than the knower by means of judgments concerning the conformity of concepts with things other than the knower. Thus, an account of knowledge has been given in which being other than the knower cannot be discarded, and in which knowledge is knowledge of being other than the knower.

CHAPTER III

THE DIVISIONS OF THE SPECULATIVE SCIENCES

In the last chapter we examined Maritain's critical realism as a critique of knowledge in general, and as such, this was seen to involve primarily an account of the formation of concepts. We emphasized in this account the role that extramental being played in the formation of the concept, namely, as the starting point and the point of verification of knowledge. In the present chapter we shall consider the various ways in which being can be known scientifically. We shall consider the various kinds of knowledge of being that can be acquired through systematic scientific inquiries.

All scientific knowledge presupposes the solution to the problem of knowledge as explained in the last chapter. Simply stated, this solution involved the recognition of "the existence of things outside the mind and the possibility of the mind's attaining these things and constructing within itself and by its own activity, beginning with the senses, a knowledge which is true or in conformity with what is."[1] In the present chapter we will see this solution as it is formulated in terms of the different kinds of knowledge proper to the various speculative sciences.

Also in this chapter, in accord with one of the previously explained interests of this thesis, we shall see the place of modern sci-

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[1]Maritain, The Degrees of Knowledge, p. 22.

ence among all of the speculative sciences. This placement of the experimental sciences will be understood through the distinction between the experimental sciences and the philosophy of nature, or more specifically, through the distinction between the kinds of knowledge proper to each.

The distinction was made in the preceding chapter between formal abstraction and total abstraction. We are here concerned with the knowledge acquired by means of formal abstraction. This kind of abstraction consists of three degrees which are the basis for the differences between the speculative sciences. That is, the knowledge offered by the various speculative sciences can be distinguished according to its degree of abstraction from extramental things. Thus, we shall first consider the degrees of this formal abstraction. Then, on the basis of these degrees, we shall distinguish between the speculative sciences which inquire into the diversities of being purely for the sake of knowledge of such.

The Degrees of Abstraction

Various objects of knowledge possess different degrees of intelligibility. These degrees of intelligibility are in accord with the degrees to which the objects of knowledge can be abstracted and thus freed from the matter which individuates them in their actual existence.[2]

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[2]It must be noted here already, that this does not imply the total lack of involvement of matter in all abstracted objects of knowledge. There remains in some (namely, those of the first degree of abstraction) what Aquinas called "undesignated matter." As Maritain states: "The mind can consider objects abstracted from, and purified of, matter but only to the extent that matter is the basis of diversity amongst individuals within a species, i.e., insofar as matter is the principle of individuation. In this way, the object remains; and remains to the very extent that it has been presented to the intellect, impregnated with all the notes coming from matter, and abstracts only from

Along this line, three degrees of abstraction can be distinguished.

First, the mind can conceive of things which cannot actually exist apart from matter, and in the mind's conception of such things it can be the case that matter is not excluded. A conceiving, of things which cannot exist without matter, and which includes matter, does not include matter in the same way as the actually existing things include matter. When the thing as conceived, or as known, is abstracted from the thing which actually exists, it is abstracted from "that in actually existing things which insulates each within itself and makes it to be, as it is in fact, other than every other concrete existent," i.e., it is abstracted from "'singular sensible matter.'"[3] Or to use Aquinas' term, it is abstracted from designated matter. This does not mean that matter is not involved in any way in the conception of such things, for matter is involved as "'universal sensible matter,'"[4] or as undesignated matter. This undesignated matter is not this or that particular matter, but is matter which refers to the "singular sensible matter" of actually existing things inasmuch as the concept refers to various particular things. In the first degree of abstraction, the mind abstracts its object from designated matter but not from undesignated matter. With this explanation of the manner in which matter is included in the conception of actually existing things which cannot exist without matter, the first degree of abstraction can be described as follows. It is the degree of abstraction by which the mind conceives of

bodies in their mobile and sensible reality, bodies garbed in their

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the contingent and strictly individual peculiarities, which science overlooks." Ibid., p. 35.

[3]FitzGerald, "Maritain's Critical Realism," p. 82.

[4]Ibid., p. 83.

> empirically ascertainable qualities and properties. Such an object can neither exist without matter and the qualities bound up with it, nor can it be conceived without matter. It is this great realm that the ancients called Physica, knowledge of sensible nature, the first degree of abstraction.[5]

This first level of abstraction however does not exhaust the scientific intelligibility of extramental sensible things. The mind can also abstract from sensible things various properties of things which can be conceived without undesignated matter. These properties are, what may be called, mathematical entities. Maritain states that through such abstraction the mind "considers nothing more than a certain property which it isolates within bodies--a property that remains when everything sensible is left aside--quantity, number or the extended taken in itself."[6] Thus in the area of mathematics, objects of thought such as a point or a line, are abstracted from things which cannot exist without matter. The concepts themselves, however, do not include matter.

Finally the mind can abstract from existing sensible things an intelligible part of such things which can either exist as part of such sensible things, or as part of immaterial things; and as conceived, such objects of knowledge do not include matter. "These are objects of thought which not only can be conceived without matter, but which can even exist without it, whether they never exist in matter, as in the case of God and pure spirits, or whether they exist in material as well as in immaterial things, for example, substance, quality, act and potency, beauty, goodness, etc."[7] Such objects of thought can be grouped

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[5]Maritain, The Degrees of Knowledge, p. 35.

[6]Ibid.

[7]Ibid., p. 36.

under the heading of "being as such and its laws." Thus, that which is abstracted to become actually intelligible by way of the third degree of abstraction is that by which things simply are, i.e., "the very being with which they are saturated."[8] Such intelligibilities compose the realm of metaphysics which considers being as being.

As briefly indicated in the preceding paragraphs, each of these three degrees of abstraction, or degrees to which objects of knowledge can be abstracted from extramental things, produces a different level of intelligibility or "universe of intelligibility" from that which is potentially intelligible in extramental things, or in the trans-objective subjects. On the basis of these levels of intelligibility, divisions among the speculative sciences can be made by distinguishing the various aspects or modes of being which are inquired into by the various sciences.[9]

The first degree of abstraction produces an intelligible "universe of the principles and laws of sensible and mobile nature, or the world of Physica."[10] That is, that which becomes intelligible by way of the first degree of abstraction is sensible nature, and what is known

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[8]Ibid.

[9]Contrary to these Thomistic divisions among the sciences, which are based on the diversity of that which can be known of existing things, Descartes combined all sciences into one science because for him things and their diversity did not determine what could be known. That is, since the "domination of the object over our minds" was not present in Descartes, but rather since the acts of the intellect were that which was known, knowledge depended merely on the human intellect. Consequently, all scientific inquiries could be considered unified. This combination of the various sciences into one science also implies a "single and identical degree of abstraction and of intelligibility for everything that we can know." Maritain, The Dream of Descartes, p. 48-9.

[10]Maritain, The Degrees of Knowledge, p. 137.

can actually exist only in sensible things. Maritain calls this the universe of the "sensible real."[11] That which is known through the second degree of abstraction is a certain property of extramental things in all its variation, namely, "Quantity as such according to the relations of order and measure proper to it."[12] This is the universe of the "praeter-real,"[13] or that of mathematics. Finally, the mind can bring to intelligibility through the third degree of abstraction "objects which are conceived as ordered to that supreme value which is extramental existence but which can be realized in a non-sensible, non-empirical existence."[14] In other words, that which is known of extramental things by way of the third degree of abstraction is that by which those things are, i.e., being itself, and this object of knowledge is and can also be actualized in immaterially existing things. This is metaphysical knowledge or "knowledge of that which is beyond sensible nature" and is called the "trans-sensible" universe.[15] Thus, through the various degrees of abstraction, we can bring to intelligibility different aspects of that which extramentally is, or different aspects of the existing trans-objective subject.

We can now further examine Maritain's consideration of the nature of the inquiries which are made by the various sciences into the diversities of being. We shall, within the first degree of abstraction, explain the important distinction between the experimental sciences and

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[11] Ibid.

[12] Ibid., pp. 35-6.

[13] Ibid., p. 137.

[14] Ibid.

[15] Ibid., pp. 36 & 137.

the philosophy of nature. The importance of this distinction relates mainly to those philosophers involved in the philosophy of science and to scientists who wish to make ontological claims. Further importance can be attributed to this distinction in view of the consequences which result if this distinction is recognized generally, namely, the diminishing of the belief in the ultimateness of modern science. In other words, this distinction is fundamental to the recognition of the proper epistemological perspective of the experimental sciences; and it is thus fundamental to the rejection of the ontological claims (notably materialism and mechanism) which arise out of an exaggeration of the epistemological place of modern science. We shall then deal with a distinction, (along lines different than that of abstraction) between perinoetic intellection proper to the experimental sciences and dianoetic intellection proper to the philosophy of nature and metaphysics. This will lead to the important distinctions between the philosophy of nature and metaphysics insofar as they both deal with the transobjective intelligible. Finally, and in connection yet with the distinctions between the philosophy of nature and metaphysics, we shall conclude our examination of the various scientific inquiries into the diversities of being with an examination of another kind of intellection proper to metaphysics, namely, knowledge of being by analogy or ananoetic intellection, part of which includes metaphysical knowledge of God.

Experimental Sciences and Philosophy of Nature

Empiriological Knowledge and Ontological Knowledge

Within the first degree of abstraction and its corresponding universe of intelligibility of things, two different kinds of knowledge

are to be distinguished. Knowledge of the sensible real can be distinguished into two classes or catagories depending on what it is about the sensible real that is known. One kind of knowledge of the sensible real not only depends upon what is sensible for its concepts but also the concepts are only those which are concerned with the sensibleness of the sensible real. On the other hand, there is a kind of knowledge of the sensible real in which the concepts refer to the first causes or principles of (in general, the modes of being exhibited by) sensible things. These two different kinds of knowledge of the sensible real are called empiriological knowledge and ontological knowledge of such, respectively, and the distinction between the two deserves our further examination. The former knowledge is that of the experimental sciences (science in the modern sense of the term) and the latter knowledge is that of the philosophy of nature. It is between these two disciplined inquiries into the sensible real that much of the contemporary conflict between philosophy and science takes place. Much of this general conflict concerns the propriety of a philosophy of nature in view of the enormous amount of knowledge of the sensible real acquired by the experimental sciences. Thus, we must take note of the distinctions between these two kinds of knowledge, and we shall do so with a view particularly sensitive to the legitimacy of the kind of knowledge of the sensible real which the philosophy of nature offers.

One way of conceptualizing and analyzing the sensible real is that of an empiriological explanation of such. Such an explanation is not concerned directly with the being of sensible being, but rather, the concern here is with sensible being <u>as sensible</u>. Being is yet considered as the object of the intellect but it is considered implicitly as

the mere foundation of observable and measurable phenomena. The concepts employed here refer to "sensible observations and indicate something which presents certain well-determined observable properties."[16] In other words, all the concepts used in an empiriological explanation of sensible being "belong strictly to the order of what falls, or might have fallen or should be able to fall within the experience of the senses."[17] The concepts of an empiriological explanation are "resolved" in the sensible and observable as such. The resolution of the concepts is "descendant towards the sensible, toward the observable as such, insofar as it is observable. Not of course that the mind no longer refers to being, for that is quite impossible: being always remains; but here it enters the service of the sensible, of the observable and especially of the measurable."[18] An example of the descendance to the sensible in empiriological explanation which has been given by Yves Simon may help to clarify the concern with and the dependence upon the sensible or the observable in such an explanation. The example is that of an empiriological explanation of man.

> For the zoologist, man is a mammal of the order of Primates. How would he define such a term as mammal? A vertebrate characterized by the presence of special glands secreting a liquid called milk. How is milk defined? In terms of color, taste, average density, biological function, chemical components, etc.
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> Here the ultimate and undefinable element is some sense

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[16] Ibid., p. 38.

[17] Ibid., p. 148.

[18] Jacques Maritain, Philosophy of Nature, (New York: Philosophical Library, 1951), pp. 74-5. It can be pointed out here, in anticipation of a future section, that this analysis remains on the level of resolving its concepts in the observable even though that which is observable may be translated into objects of thought which cannot be imagined--as is the case in contemporary physico-mathematical knowledge.

> datum; it is the object of an intuition for which no logical construction can be substituted and upon which all the logical constructions of the science of nature finally rest. . . . Every concept is meaningless for the positive scientist which cannot be, either directly or indirectly, explained in terms of sensations.[19]

The other way of analyzing the sensible real is an analysis that is not oriented to the observable as such, but rather is oriented to the being of the sensible real. This is an ontological analysis or explanation of the sensible real. The concepts of an ontological explanation do not refer to the sensible or observable as such, but they do refer to the <u>being</u> of the sensible thing. The concern here (in the philosophy of nature) is the nature of the thing and the reasons for its being. Such an analysis seeks to bring to intelligibility the essence of the things composing the sensible real.[20] It could also be said that the formal object of ontological knowledge is the being of the sensible real. In terms of the object of knowledge, Maritain defines the philosophy of nature as a "knowledge whose object, present in all things of corporeal nature, is mobile being as such and the ontological principles which account for its mutability," i.e., it is a knowledge of the world of "changing being."[21] The philosophy of nature deals with the being itself of the sensible real, i.e., it deals with being insofar as it is mutable and mobile.[22] Concepts which offer an ontological explanation of sensible being are "resolved" in intel-

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[19]Ibid., pp. 165-6.

[20]We cannot attain this intelligible essence apart from sense experience as an angel can. Maritain, <u>Philosophy of Nature</u>, p. 85.

[21]Maritain, <u>The Degrees of Knowledge</u>, p. 176.

[22]Maritain, <u>Philosophy of Nature</u>, p. 91.

ligible being. The resolution of the concepts involved here is "ascendant toward intelligible being, in which the sensible is always present and plays an indispensable role but does so indirectly: putting itself in the service of intelligible being and as connoted by it."[23] The example of Yves Simon, this time giving an ontological explanation of man, will hopefully again produce greater clarity concerning the ascension of an ontological explanation to its ultimate term in the being of the sensible real.

> To the question what does the word man mean? the answer will be 'rational animal'; now, none of the elements of this definition presents a character of irreducible clarity. Take one of them, for instance, animal. What does this word mean? A correct definition would be: 'a living body endowed with sense knowledge,' and these are so many terms which badly need clarification. Take one of them, for instance, 'living.' I would say that a body is a living one when it moves itself, when it is the active origin of its own development. If we go any step farther, we go beyond the limits of physical thought. In order to render the idea of life clearer, we would have to define it as self-actuation. The concept of self-actuation does not imply any reference to the proper principles of corruptible and observable things: it is a metaphysical concept. Its elements are identity and causality. Identity is the first property of being. Causality can be analyzed into potency and act. Identity, potency, and act are so many concepts directly reducible to that being, which is, in an absolute sense, the first and the most intelligible of all concepts. We have reached the ultimate term of the analysis, the notion which neither needs to be nor can be defined and which does not admit of any beyond.[24]

It was mentioned above that even though the concepts of an ontological explanation are resolved in the being of the things of the sensible real, such conceptualizations do involve the sensible, "but indirectly and at the service of intelligible being."[25] It is at this

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[23]Ibid., p. 74.

[24]Ibid., pp. 164-5.

[25]Maritain, The Degrees of Knowledge, p. 148.

point that a subtle distinction must be made concerning the involvement of the sensible in an ontological explanation. Such an explanation is bound to the realm of the sensible in that the objects of ontological knowledge of the sensible real are "characterized by means of experienced sensations."[26] That is, the formal objects of knowledge in this analysis are intelligibilities which are found, or are potentially intelligible, in the sensible real. However, the formal objects of knowledge here, as they are intelligible, are not representations of something which could be sensed. Maritain states that "its object precisely as intelligible is not sensed; as intelligible (intelligible for us) it implies a reference to the senses but it is not sensed, it is not an object of observation."[27] Thus are formed such concepts as "corporeal substance, quality, operative potency, material or formal cause, etc.--notions which, while they bear reference to the observable world, do not designate objects which are themselves representable to the senses and expressible in an image or a spatio-temporal scheme."[28]

The fact that the formal objects of ontological knowledge refer to that which cannot actually exist apart from being sensible (or apart from matter) satisfies one requirement of such concepts being derived through the first degree of abstraction, namely, that that which is known cannot exist apart from matter. But what about the other requirement, namely, that that which is known cannot be conceived apart from matter? How is it possible that the objects of ontological knowledge of the sensible real as they are intelligible are not something

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[26]Maritain, Philosophy of Nature, p. 80.

[27]Ibid.

[28]Maritain, The Degrees of Knowledge, p. 148.

which could be sensed and yet are such that matter is not excluded from them? The answer to these questions lies in the fact that undesignated matter does not have to be such that it is part of an imaginable representation of some actually existing thing which includes singular, particular matter. That is, the conceptions involved in ontological knowledge do not include universal undesignated matter in an imaginable manner. For example, concepts such as corporeal substance, form, and quality cannot be conceived apart from matter even though matter is not a part of them in an imaginable, representative way. Form is always thought of as form of matter; quality, similarly, as quality of corporeal substance.[29] Thus it is that the concepts of an ontological explanation of the sensible real do not abandon the sensible while giving an explanation of the sensible real in terms of its being.

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[29]It can be pointed out here that since an empiriological analysis resolves its concepts in that which can be sensed, such concepts include universal matter as part of imaginable representations of that which is sensed, i.e., in a way such that the concept is a representation of a material object which can be sensed. (We can parenthetically note that the empiricism of Berkeley and Hume--which limits knowledge to imaginable constructs or models--does not include universal or undesignated matter in ideas or images. Rather than maintaining that the matter as such which is included in mental images remains undesignated or not representative of this or that particular matter, empiricism maintains that the matter which is included in mental images is representative of some particular matter and becomes generally representative through some other act of knowing or deciding that a particular image should be generally representative. One result of this position is that our images would be continuously changing subject to the mutability of matter.) This might be objected to since modern physics (physico-mathematical knowledge) attains a mathematical transformation of such concepts of the sensible real and results in the concepts in which the sensible real is no longer represented in an imaginable manner. This objection can be answered however, by pointing out that such transformations are transformations of concepts whose ultimate term is yet that which can be sensed and thus imaginably conceived.

It can be seen then that modern science explains[30] the sensible real only in terms of concepts which refer to what can be sensibly experienced. An empiriological analysis does not have the task of determining what a thing is, or of determining the essence of a thing. "A scientific [modern science] definition does not tell us what a thing is, but only in what way we can agree on the observations and measurements we have taken from nature."[31] To the extent that the concepts in an empiriological explanation refer to the observable as such, or indicate that which is or can be sensibly observable, such an explanation of sensible being is free from an ontological explanation of sensible being.[32] On the other hand, an ontological explanation of the

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[30]Maritain's distinction between sciences of explanation and sciences of observation--between deductive and inductive sciences--can be noted here. (Maritain, The Degrees of Knowledge, pp. 32-4.) Sciences of observation are only able to give an imperfect explanation of the sensible real in that they do not give a certain explanation of such, or they do not give an explanation of what is necessarily the case regarding such things. One reason for this is that sciences of observation do not deal with the essences of things, or the "intelligible necessities" of things directly but only deal with essences of things as hidden. The essences of things composing the sensible real are merely implicitly present in an explanation of the sensible real in terms of what is observable. They are implicitly present in such explanations in that they have to be assumed to be present in (as the "stablizing core" of) actually existing things in order for the things to be explained in terms of their observabilities. Since, then, the sciences of observation involve the intelligible necessities of things only in this implicit manner, the explanations themselves offered by such sciences are uncertain. On the other hand, sciences of observation give imperfect explanations of the sensible real, (imperfect in view of their uncertainty) because of what they do deal with directly, namely, that which is observable of the sensible real. Because the sciences of observation are concerned merely with what is observable, which is obviously mutable, the explanations offered by such sciences are constantly subject to revision or complete substitution.

[31]Maritain, The Range of Reason, p. 6.

[32]Maritain does point out that an empiriological explanation of sensible being is "bound to," or makes use of, the knowledge which is

sensible real does not have set before it the task of collecting all the observabilities of the sensible real. (This does not imply, as indicated above,[33] that in an ontological explanation the sensible is dispensed with, for an "ontological analysis at the first degree of abstraction cannot be disengaged from the sensible given; it definitely rests upon it."[34] The being which is the object of knowledge here is the being of the sensible real--mobile and changable being-- and such being not only actually exists in sensible things, but also, as conceived, it is the being of the sensible real, i.e., it cannot be conceived apart from matter.)

A serious mistake, which is common in both modern science and philosophy, is the failure to recognize that empiriological knowledge and ontological knowledge are two different kinds of knowledge. This failure is the reason for the common mistake of regarding an empirio-

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the concern of an ontological explanation of sensible being. In an empiriological analysis, even though knowledge of the being of sensible being is not that which is sought after, being is yet assumed to be the basis of the "spatio-temporal representations and empirical definitions" of the sensible real which are formed in an empiriological analysis. (Maritain, Philosophy of Nature, p. 79.) Maritain states that the connection of an empiriological explanation to an ontological one is "in an implicit, obscure, ungracious and unavowed fashion, and [is] that for a two-fold reason: first, to the extent that these sciences necessarily presuppose a philosophy or pre-philosophy, a latent substructure which may be rudimentary, unformulated, unconscious, but which is none the less real, and for which the existence of things distinct from thought, and the possibility of attaining these things more-or-less completely by knowledge, are indisputable postulates; and then, to the extent that the science itself refers obliquely to the being of things as the foundation for the explicative representations that it elaborates." Maritain, The Degrees of Knowledge, p. 154.

[33]See above, p. 49.

[34]Maritain, Philosophy of Nature, p. 85.

logical explanation as the only explanation--and thus as an ontological explanation--of the sensible real. Neither of these two different kinds of knowledge are to be considered as a complete explanation of the sensible real in themselves. Rather, they are to be considered as complimentary to each other, since they are dealing with the same material object--the sensible real. It is particularly relevant in connection with modern science to notice that empiriological knowledge is an insufficient or incomplete explanation of the sensible real, and that it is not exclusive of an ontological explanation of such. That is, it is a mistake to make an ontological claim (most notably that of mechanism and materialism) on the basis of an empiriological explanation of the sensible real.[35] What is needed, in addition, is a know-

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[35]A rather striking example of this mistake can be found in the behavioristic trend in modern psychology. The claim of behaviorism which maintains the possible reduction of an explanation of man to an explanation in terms only of what is observable concerning man (namely, a material body and its patterns of behavior) merely points out (and points out rather well) that such an explanation is completely oriented to and resolves its concepts in what is observable. (I use the term "observable" here only for the purpose of authenticity. The expression which would clarify the intended meaning here is "sensible." Thus that which is observable concerning man, is intended merely to mean that which is sensibly observable concerning man; and also the resolution of concepts is in the sensible.) The serious mistake comes with the assumption that this reduced explanation of man is the exclusive--the sole, the most fundamental, the most truthful--explanation of man. With this assumption the ontological claim that man is a body possessing some patterns of behavior is also present. Furthermore, the reason for this assumption is an assumed materialism. It is assumed that a materialistic explanation is the most fundamental explanation of all. This points out that an empiriological explanation such as behaviorism does not prove the ontological claim of materialism, but rather that an assumption of materialism need be made in order to justify the claim of materialism on the basis of an empiriological explanation. (A common defense of the legitimacy of an ontological explanation of sensible being is that there are some sensible things which will never be able to be fully explained in terms of the observable, e.g., the complexities of the human brain. This defense however also involves the assumption, however implicitly, that a materialistic explanation is the most fundamental explanation of the sensible real.)

ledge of being itself in connection with the sensible real--"a knowledge of corporeal, sensible and mobile being, of the being immanent in those realities of nature in which the sciences of phenomena reach their terminus and find their verification, those realities which constitute the basis of all their [empiriological] conceptual constructions, and over which these constructions give us practical mastery."[36] We shall consider this mistake of regarding empiriological knowledge as ontological knowledge of the sensible real in connection with one specific kind of empiriological knowledge--physico-mathematical knowledge--in order to understand further why an empiriological knowledge of the sensible real does not exclude an ontological knowledge of such.

Physico-mathematical Knowledge

The other truth which Maritain attributes to Descartes, of which we spoke earlier,[37] is that of a realization of the possibilities of a mathematical explanation of the sensible real.[38] This realization has been greatly developed since Descartes into what Maritain calls "physico-mathematical" knowledge. Such knowledge is an empiriological kind of knowledge which interprets the sensible real mathematically. This knowledge can also be called "empiriometrical" knowledge.[39] In this particular kind of empiriological knowledge the resolution of concepts becomes the measurable rather than, more generally, the observable.

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[36]Maritain, The Degrees of Knowledge, p. 174.

[37]See above, p. 16.

[38]Maritain, The Dream of Descartes, p. 35.

[39]Maritain, Philosophy of Nature, p. 104, see also, Maritain, The Degrees of Knowledge, p. 148.

As Simon states:

> It is comparatively easy to see how the law of the descending analysis which prevails in all fields of positive knowledge applies to the mathematical interpretation of nature. Whereas in the case of a non-mathematical positive science the law of descending analysis amounts to the necessity of resolving all concepts into observable data, this law, when applied to a science of physico-mathematical type, signifies the necessity of resolving all concepts into measurable data. Nothing makes sense for the positive scientist in general except what can be explained in terms of observations. Nothing makes sense for the physico-mathematician except what can be explained in terms of measurements.[40]

Empiriometrical or physico-mathematical knowledge is not to be considered as a purely mathematical knowledge even though it gives a mathematical interpretation of the sensible real. The reason for the difference is the following. In mathematical knowledge the point of verification of its concepts is not the sensible real. It does not need to return to the sensible real to verify its conclusions after its concepts have been abstracted from the sensible real.

> The ancients taught that in mathematics the judgment--whereby knowledge is perfected--does not open upon the sensible, but upon the imaginable. This does not mean that each of the conclusions it establishes must be directly verified in imaginative intuition. They must be verified in it either directly or analogically. That is to say, they either can be constructed in imaginative intuition, or they belong to a system of notions . . . stemming from one which may be constructed in intuition, . . . and in which they may find an analogical interpretation.[41]

Physico-mathematical knowledge, on the other hand, does return to the sensible real for the verification of its concepts. It is physical in that it verifies its judgments in the physical. Physical reality and physical causes are the "terminus of its investigation."[42] Thus the mathematical translations of the sensible real which compose physico-

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[40]Maritain, Philosophy of Nature, pp. 175-6.

[41]Maritain, The Degrees of Knowledge, pp. 54-5.

[42]Ibid., p. 61.

mathematical knowledge are subject to change on the basis of future observations of the sensible real. Basing itself on the sensible real then, physico-mathematical knowledge offers a "mathematization of the sensible." The material object of this knowledge is the sensible real, and the formal object is mathematical. Such knowledge always remains a knowledge of the sensible real given in terms of the mathematical praeter-real. "Thus, they [physico-mathematicians] have more affinity with mathematics than with physics as to their rule of explanation and yet at the same time are more physical than mathematical as to the terminus in which their judgments are verified."[43]

The mistake of giving physico-mathematical knowledge an exaggerated position in the structure of human knowledge began already with Descartes. He wished to apply the certitudes peculiar to mathematics to all of science. The easy mistake which has often followed from this desire is to consider such knowledge as being an exclusively truthful explanation of the physical real and thus to think that the physical real is only truthfully understood when it is measured by instruments and then quantified. When this mistake is made the assumption is present that knowledge of the sensible real in terms of mathematical formulas gives an exclusive explanation of what the sensible real is. Thus, there is the assumption here that the sensible real is to be understood only in terms of that which can be measured and quantified. If this is the case then it can also be claimed that that which is real in the sensible real is nothing more than what is measurable and quantifiable. If this claim is made, a claim of materialism (which is basic to mechanism) is also made since that of the sensible

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[43]Ibid., p. 138.

real which can be understood in terms of measurement and quantification is only its sensibleness or its sensibility which inheres in the matter of the sensible real. Thus the claim is made that the sensible real can be understood only in terms of its material, and if this is the case then it must also be the case that the sensible real is nothing more than material. As Maritain states, "the central error of modern philosophy in the domain of the knowledge of nature has been to give the value of an ontological explanation to the type of mechanist attraction immanent in physico-mathematical knowledge, and to take the latter for a philosophy of nature. It is not a philosophy of nature."[44] For example, in the area of biology there are bio-physicists who proclaim a "physico-mathematical biology, a biology which will tend ultimately to offer a mathematical interpretation of sensible data."[45] The mistake here is to permit the physico-mathematical explanation in biology to lead to a "pseudo-ontology, to the closed world of mathematicism with its pretensions of giving a total explanation and reconstruction of the real. Even though this bio-mathematical discipline imply [sic] a tendency to mathematicism or mechanism, this tendency will remain inefficacious, precisely because this part of biology could never constitute an autonomous whole."[46]

If the mistake of exaggerating the position of empiriological knowledge in the structure of human knowledge (by considering such knowledge to be ontological knowledge) is not made, then room is left in the

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[44]Ibid., p. 184

[45]Maritain, Philosophy of Nature, p. 114.

[46]Ibid., p. 115.

universe of the first degree of abstraction for an explanation of the sensible real in terms of its being. Indeed, recognition of this mistake allows for the recognition of the necessity of an explanation of that which makes possible the existence of the things which are explained in terms of their sensibilities by an empiriological analysis.

Dianoetic and Perinoetic Intellection

In the last section we touched on the fact that the knowledge offered by the philosophy of nature is knowledge of the essences of sensible things, whereas the knowledge offered by the experimental sciences is knowledge which concentrates on the sensible of sensible things and the essence of such remains hidden. This distinction can be expanded to the distinction between "perinoetic intellection" and "dianoetic intellection," which distinguishes the knowledge of speculative philosophy in general from the knowledge of the experimental sciences.

> It is fitting that for an intelligence that makes use of senses there correspond, as naturally proportionate, object-essences immersed in the sensible. That is why the scholastics said that the essences of corporeal things are the connatural object of our power of intellection. Plunged into the ocean of the transobjective intelligible our intelligence illumines material things in order to reveal the hidden structure, and to actualize as much as it can the intelligibility detained in them in potency. And by discourse it continually accomplishes new actuations of intelligibility.

This "hidden structure," the essences hidden by matter, of the transobjective intelligible is what is known through dianoetic intellection. The transobjective subjects are known to some degree "'in themselves,'" and with the help of the senses. Because of the involvement of the senses in the acquisition of knowledge of the essences of corporeal things, such essences are not known "'by themselves,'" or immediately, "like the non-discursive knowledge of the Angels or the perfectly im-

mutable knowledge of God (or like the knowledge Descartes believed he received from the clear and distinct ideas of thought and extension)." Rather such essences are known by their accidents, i.e., "by dianoetic intellection--where it is possible and to the extent that it is possible--we attain substantial natures 'in function of and through their very manifestations, which are the accidents.'" Or, in other words, dianoetic intellection offers "knowledge of essences (substantial) by 'signs' or accidents (properties) which manifest them, at least in their most universal notes."[47]

In perinoetic intellection, on the other hand, the essences of transobjective subjects remain hidden. This kind of intellection does not offer knowledge of the essences in themselves, but rather merely offers knowledge of indications, or knowledge of signs, of the essences. In perinoetic intellection

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[47]Maritain, The Degrees of Knowledge, pp. 202-6. Maritain also distinguishes here between two "modes" of dianoetic intellection, namely, that which is proper to philosophical knowledge and that which is proper to mathematical knowledge. "In the first case, as was just recalled, the essence is known by the accidents. In the second, it is known, so to speak straight away, by its very intelligible constitution, at least insofar as the latter is manifested by means of signs which can be constructed in some way in imaginative intuition. Right here arises, with all its difficulties, the problem of mathematical intellection. Mathematical essences are not grasped intuitively from within. That would be proper to angelic and not human mathematics. Nor are they perceived from the outside, which would be by accidents emanating from them, as an operation emanates from an active potency and from a substance. Nor are they created by the human mind, of which they would simply translate the nature and laws. We say that they are recognized and deciphered so to speak, by means of a construction beginning with primary elements abstractively disengaged from experience. . . . Such an intellection is still 'dianoetic' (and not comprehensive, or exhaustive) in this sense that the essence is not grasped intuitively by itself (by means of a non-abstractive intuition which would exhaust it at a glance) but indeed constructively by itself (thanks to a construction of notions that is on the other hand at least indirectly imaginable and remains as it were an 'outside' by which the essence is attained)."

> it is not knowledge by signs which manifest essential differences, but by signs which are substitutes for those differences and are known in place of them. This knowledge, to be sure bears on the essence, grips it from the outside, but as it were blindly, without being able to discern the essence itself or the properties in the ontological sense of this word.

This knowledge is "knowledge of essences by the 'signs' which are known in place of the natures themselves, which in this case remain inaccessible in their formal constitutive."[48]

Philosophy of Nature and Metaphysics

Having distinguished between the experimental sciences and the philosophy of nature within the first degree of abstraction, and having made a distinction between the experimental sciences and speculative philosophy (philosophy of nature and metaphysics) with regard to that which is known, the task that remains is to distinguish between the philosophy of nature and metaphysics, and thus to defend the knowledge proper to each as scientific knowledge.

The first and most obvious distinction between the philosophy of nature and metaphysics is that they belong to two different universes of intelligibility because the knowledge that is proper to each is acquired by different degrees of abstraction. In the philosophy of nature, that which is known (as it is known) is abstracted from individuating matter but is not abstracted from universal or undesignated matter. Thus matter, undesignated matter, is included in the concepts employed in the philosophy of nature. Or, that which is known in the philosophy of nature cannot be conceived without matter. That which is known (as it is known) in metaphysics, on the other hand, is ab-

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[48]Ibid., pp. 205 & 206.

stracted from all matter whatsoever. The concepts employed here do not include matter.

A second distinction between these two kinds of inquiries into the diversities of being is a distinction between the being which is known by each. In both the philosophy of nature and metaphysics "the mind in its work of conceptualization, in the formation of concepts and definitions, tends toward intelligible being, seeks to grasp intelligible being."[49] In accord with the fact that the concepts of the philosophy of nature include matter, the being that becomes intelligible here is the <u>being of the sensible real</u>. That which is known cannot exist apart from matter. The object of knowledge for metaphysics, on the other hand, is <u>being as such</u>. It is not the particularized being, being as mutable and mobile, of the philosophy of nature which is known here. Rather, the being which comes to intelligibility in metaphysics is "real being in all the purity and fullness of its distinctive intelligibility--or mystery."[50] In metaphysical knowledge we move to the third degree of abstraction and consider being not as embodied in the essences of sensible things, but rather the object of such knowledge is being as such. "It is being disengaged and isolated from the sensible quiddity, being viewed as such and set apart in its pure intelligible values."[51] That which is known here can be actualized either with or without matter. This is only a preliminary or a very general statement of the distinction between the philosophy of nature and meta-

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[49]Maritain, <u>Philosophy of Nature</u>, p. 86.

[50]Maritain, <u>A Preface to Metaphysics</u>, p. 50.

[51]Ibid., p. 26.

physics with regard to that which is known, and we can proceed much farther into the complexities of this distinction.

It has been pointed out that dianoetic intellection which is proper to both the philosophy of nature and metaphysics offers knowledge of essences of transobjective subjects. Since we are dealing here with transobjective subjects, the essences which are known in the philosophy of nature are those which are or can only be realized in material things, and the essences which are known in metaphysics are those which are and can be realized in material things. This does not mean, however, that the essences which are known are the same in both cases. They must be distinguished in order to have metaphysical knowledge of that which is and can be realized in material things. We shall point out two closely related distinctions here.

The philosophy of nature, as we have said, offers knowledge of the being of sensible being. This refers to the fact that what comes to intelligibility in this case is what sensible things are, i.e., what is known is the nature or essences of sensible things. What is known is that which is essential to a thing being what it is.[52] Metaphysics, on the other hand, offers knowledge of being as being. The essences which come to intelligibility here are the essences of the existence of things.[53] In other words, the essences which are known in dianoetic

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[52]The fact that knowledge of existence is here implicitly present also is apparent in the phrase "being what it is." That is, even though that which becomes actually intelligible is the "what" of a thing, it is also implicitly known that the thing of which the "what" is known is an existent--either actual or possible.

[53]The use of the plural (essences) will be understandable in connection with the discussion of the analogous character of the concept of being which is developed in metaphysics.

intellection, as it is proper to metaphysics, is the being of things as being. The nature or essence of the existence of things is the object of thought in this case. It is now understandable why Maritain points out that in the concept of being, developed or brought to intelligibility in metaphysics, essence and existence cannot be separated;[54] for the essence which is known is the existence, the being as being , of things.[55]

The second distinction between the essences of transobjective subjects which are known by the philosophy of nature and metaphysics is closely related to the distinction above. This distinction concerns the analogous character of the concept of being[56] developed in meta-

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[54]Maritain, A Preface to Metaphysics, pp. 67-8.

[55]The existentialism of Maritain is obvious at this point. It is also obvious from the context, which brings out the contrasting knowledge of essences of sensible things, that Maritain's existentialism is not in conformity with modern existentialists who emphasize the exclusive importance of knowledge of being as existence.

[56]The phrase "concept of being" is intended to refer to metaphysical knowledge as a whole which includes many more differentiating intelligibilities (modes of being) than just the notion of existence of things. For example, knowledge of the modes of being which every thing has which has being (the transcendentals) are included in what is referred to as the "concept of being," even though these universal modes of being can be distinct objects of thought themselves. In other words, what we will be referring to as the "concept of being" will include distinguishable intelligibilities which compliment the knowledge that things are, and which in actual existence are identical with that which is. Such intelligibilities are, for example, what are called transcendentals. Maritain states the following concerning such intelligibilities and their distinction from knowledge that things are and their inclusion in knowledge of being as a whole. "There is a reality which I attain in the notion of being, . . . and which I express by the term being; and it becomes evident that their reality--even as objectively manifested by and in the notion of being--is richer and more pregnant with intelligible values than the idea of being by itself immediately reveals. By an intrinsic necessity it must in a sense overflow the very idea in which it is objectified.

"This is what I mean. You know that metaphysicians recognize

physics, as opposed to the universal, generic or specific character of the concepts employed in the philosophy of nature.

In accord with the fact that the knowledge offered by the philosophy of nature is knowledge of the essences of things, the concepts which are formed are conceptions of the generic or specific nature of things composing the sensible real. In the philosophy of nature the intellect

> attains a universal object of concept communicable to all the individuals of the same species or of the same genus. And this is called univocal, since, presented to the mind by a plurality of transobjective subjects and restored to them in judgments, it is purely and simply one and the same in the mind. Unum in multis, it is an invariant without actual multiplicity, realized in several,

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a certain number of universal modes of being, as universal as being itself, which are termed transcendentals (passiones entis). For example, unity is being inasmuch as it is undivided. This is an aspect of being which rises before the mind--namely its internal consistence. . . . To the extent to which anything is, it is one. Truth is being inasmuch as it confronts intellection, thought; and this is another aspect of being, thus revealed, a new note struck by it. . . . An object is true--that is to say conforms to what it thus says itself to thought, to the intelligibility it enunciates--to the extent that it is. . . . Then there is goodness, transcendental good. Good is being inasmuch as it confronts love, the will. Everything is good, metaphysically good. I am not speaking of moral goodness. Everything is good, that is to say, apt to be loved, to be an object of love, to the extent to which it is.

"Hence each of these transcendentals is being itself apprehended under a particular aspect. They add nothing real to it. How could they add anything to being? Outside being there is but nonentity. They are, so to speak, a reduplication of being for and in our mind. There is no real distinction between being and unity, between being and truth, between being and good. They are 'convertible' notions. The distinction between these different intelligible infinities is merely conceptual, though based on reality, a virtual distinction.

"You see, then, that of a single reality, of something which is one and the same outside my mind, of something which precisely as being is one, and good, of this single and unique reality which exists or is capable of existing outside my mind I possess several ideas. The idea, the notion, the ratio, the concept of being qua idea, differs from the idea of unity, of truth, of goodness or good. I therefore possess many ideas which correspond to a single and identical reality too rich, too fertile to enter my mind by the medium of a single idea, not even this primary idea, the idea of being. We may say that being compels the concept of being to multiply diverse concepts and exceed itself." (Ibid., pp. 68-70.)

and by that very fact positing among them a community of essence."[57] What is important to note here is that the concepts proper to the philosophy of nature are "purely and simply one and the same in the mind." That is, we have one concept which provides us with essential knowledge--generic or specific knowledge--of a number of transobjective subjects, and that which is known actually exists in those transobjective subjects.

The concept of being developed in metaphysics, however, includes at once both multiplicity and unity. Let us first consider its multiplicity. The multiplicity involved in the concept of being is a result of the diversity of its actual realizations, i.e., that which is known in this case (being and its universal modes) actually exists in diverse ways; it is "everywhere found in essentially different forms."[58] As Maritain states:

> But in the perception of the transcendentals, we attain in a nature more than itself, an object of concept not only transindividual, but trans-specific, transgeneric, transcategorical, as if in opening a blade of grass one started a bird greater than the world. Let us call such an object of concept superuniversal. The scholastics call it analogous, that is to say realized in diverse ways but according to similar proportions in the diverse subjects in which it is found. It differs essentially, even as object of concept, from the universal, not only because it has a greater amplitude, but also and primarily--and this is what is most important, because it is not like them purely and simply one and the same in the mind (let us say monovalent)--it is polyvalent, it envelops an actual multiplicity; the bird we spoke of a moment ago is at the same time a flock.[59]

The concept of being--the analogue--thus includes the diversity of the ways in which it is realized in various transobjective subjects--the

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[57]Maritain, The Degrees of Knowledge, p. 212.

[58]Maritain, A Preface to Metaphysics, p. 66.

[59]Maritain, The Degrees of Knowledge, p. 212.

diversity of its analogates. The diversity of the analogates in which the analogue is realized, is included in the analogue itself because the analogue is not completely abstracted from the analogates. "It [the concept of being] would be purely and simply one if its differentiations were not still itself, or to put it otherwise, if the analogue presented to the mind made complete abstraction from its analogates; if I could think being without thereby rendering present to my mind (whether I am de facto explicitly aware of this or not is quite accidental) in essentially different ways some of the others in which this object of concept is realizable outside the mind."[60] Maritain concludes that "the concept of being is therefore implicitly and actually multiple. This is so because it only makes incomplete abstraction from its analogates, and in contrast to universal concepts it envelops a diversity which can be essential" to it.[61]

Even though the concept of being is not "purely and simply one and the same in the mind," even though it includes the diversity of the ways in which it can be realized, it must in some way be a unified concept if it is to be intelligible. "It would be purely and simply multiple if it did not transcend its differentiations, or, to put it otherwise, if the analogue presented to the mind made no abstraction

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[60] Ibid., p. 213.

[61] Ibid. Because the objects of thought which are involved in metaphysical knowledge of transobjective subjects can be realized in all possible transobjective subjects, and are realized in all actual transobjective subjects, they are termed "trans-sensible" objects of thought. "For though they are realized in the sensible in which we first grasp them, they are offered to the mind as transcending every genus and every category, and as able to be realized in subjects of a wholly other essence than those in which they are apprehended." Ibid., p. 214.

from its analogates: in which case the word 'being' would be purely equivocal and my thought would fly to pieces; I could no longer think: Peter is man and this colour is green, but only ah, ah."[62] In other words, we do use one name to signify the diversities such as "is man," and "is green." "Being presents me with an infinite intelligible variety which is the diversification of something which I can nevertheless call by one and the same name."[63] Thus the concept of being is unified even though it is not conceivable apart from its realized diversities; "it is one in a certain respect, insofar as it does make incomplete abstraction from its analogates, and is disengaged from them without being conceivable apart from them, as attracted towards, without attaining, a pure and simple unity."[64] The question now is what is this "certain respect" in which it is unified? Or, how is it possible for the diversified concept of being to be intelligible?

The key to these questions has already been given in the phrase, "that is to say realized in diverse ways but according to similar proportions in the diverse subjects in which it is found." Let us consider what Maritain has to say in addition to this.

> In analogy of proper proportionality one has to do with a concept which is ANALOGICAL IN ITSELF ('knowing' said of sense and intellect, 'being' said of the creature and of God), and which designates, in each of the subjects of which it is said, something made known by the likeness between the relations which one of these subjects (sense) has to the term (knowing) designated in it by that concept, on the one hand, and the relation which the other subject (intellect) has to that term (knowing) likewise designated in it by the same concept, on the other hand. It is immediately evi-

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[62] Ibid., p. 213.

[63] Maritain, A Preface to Metaphysics, p. 67.

[64] Maritain, The Degrees of Knowledge, p. 213.

> dent that under these conditions (the concept being in that case analogous of itself), an analogy of proper proportionality does enable us to attain the thing analogically known in accordance with what is properly signified by the concept. In this case, what is signified by the concept, inasmuch as it is one (even though it is so only in a unity of proportionality), is intrinsically and formally in each of the analogates.[65]

In other words, an analogical concept such as the concept of being designates something in each of the transobjective[66] subjects of which it is predicated, for example, of man, or of stone. This something (being) which is designated in various transobjective subjects is known by, or can be intelligible because of, the likeness which the relation that being has to man bears to the relation that being has to stone. That is, the various subjects (man, stone, etc.) of which that which is known (being) is predicated, are similarly related to that which is known, and that which is known is known because of these similar relations. Thus, being comes to intelligibility by the analogous manner in which the subjects are related to it.

The unity of the concept of being, which makes possible its intelligibility, is a proportional unity. The proportionality here refers to the proportional relations which the subjects have to the term (being). That is, stone is related to being in proportion to (not equal to) the relation of man to being. The unity of the concept of being consists of the fact that the relationships of the subjects to being

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[65] Ibid., p. 419.

[66] I realize that Maritain's statement concerning analogy here includes all of metaphysical knowledge and not just metaphysical knowledge which is proper to dianoetic intellection. However, I will restrict my explication of metaphysical knowledge by analogy to transobjective subjects since we have not yet arrived at a consideration of metaphysical knowledge of that which can exist apart from matter (which, as will become apparent, is known by analogy with metaphysical knowledge --knowledge of the being as such--of transobjective subjects).

are proportional. It consists of the fact that the relationships of subjects to being are similar.[67] The unity of the concept of being, then, is derived from the fact, for example, that man is related to being as stone is related to being. As Maritain states:

> It [the concept of being] is said to have a unity of proportionality; the being, man, stands to its man-existence as the being, stone, to its stone-existence, . . . It signifies, therefore, not precisely one object, but a plurality of objects of which one cannot be posited before the mind without dragging the others along with it implicitly because they are all linked together in a certain community by the likeness of the relations they sustain with diverse terms.[68]

Ananoetic Intellection

In our consideration of knowledge of being as being, we have so far only considered this metaphysical knowledge as it is knowledge of the being as such of sensible subjects--subjects which are the realizations of that which is known of them and which exist materially. We have been dealing with knowledge which is proper to dianoetic intellection, and we have distinguished within that knowledge--knowledge of the essences of transobjective subjects--the knowledge which is proper to the philosophy of nature and the knowledge which is proper to metaphysics. With regard to metaphysical knowledge, then, we have considered knowledge of being as such with regard to its material realizations.

Not all of the things, however, in which being as being is found or is realized are material things, for that which is known by means of the third degree of abstraction can exist either with or without matter.

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[67]It should be noticed that it is not said that the proportions are similar for this would be quantifying the relations in some way.

[68]Maritain, The Degrees of Knowledge, p. 214.

In other words, analogates of the intelligible analogue which is the concept of being proper to metaphysics can include matter or can exist without matter. The former we have just considered. We shall now briefly consider the latter which provides a further distinction between metaphysics and the philosophy of nature.

The analogates which include matter are the signs or the indicators of the concept of being which is in turn realized in these analogates. These analogates are sensible and thus are themselves the indicators of their being as being.[69] Analogates which do not include matter, however, are not the basis of the knowledge of their being as such. These latter analogates (the being as being of such) are known by way of the analogates which do include matter. Or, "they are known in the latter [the analogates which do include matter] as in a mirror, in virtue of the likeness it has with them."[70] The likeness it has with them is being as being. In other words, knowledge of analogates which do not include matter are known by analogy, or by "ananoetic intellection."[71] Maritain states that analogates which do not include matter

> are known, . . . intrinsically and properly designated, constituted as objects of intellection, but as it were at a distance and not 'in themselves.' The ray of the intellect that attains them has been refracted or reflected, and they always remain above the knowledge we have of them, superior to the grasps that reach up to them, separated from our mind in the very act which

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[69]We should keep in mind that that which is known is the being as being of those things in which being as being is realized. That which is known is not being as being which is isolated or divorced from those things in which it is actually realized.

[70]Maritain, The Degrees of Knowledge, p. 218, (italics mine).

[71]Ibid.

> unites it to them. This paradox is due to the fact that they are attained in an object that another subject has rendered present to our intelligence, and which being itself one of the analogates, one of the valences of an analogue, causes us to pass by the latter to those other analogates that we do not attain in themselves.[72]

To expand on what is emphasized in the above, we can say that those analogates which do not include matter become intelligible through intelligible being as being which itself has become intelligible in terms of an analogate which does include matter. The analogate which does include matter, because it is an analogate of being as being, causes us to go beyond intelligible being as being, to a knowledge of analogates of being as being which do not include matter. This universe of intelligibility composed of analogates of being as being which do not include matter is called the universe of the "transintelligible."[73] It is called such not because it is unintelligible to us, but because there is more that is potentially intelligible in it than our human intellects can acquire and make actually intelligible.

One such analogate in the area of the transintelligible which can be actually intelligible for us (by ananoetic intellection) only in a manner which is wholly inadequate to the actuality of that analogate, is perfect, or completely actual Being.

Metaphysical Knowledge of God

In this brief explication of analogical knowledge of God, we shall follow Maritain's description of "one of the typical paths" which reason may take in approaching and inadequately acquiring knowledge of God.[74] This path makes use of one particular mode of being, namely, in-

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[72]Ibid., p. 219, (italics mine).

[73]Ibid. [74]Ibid., pp. 222-6.

telligibility or thought.

Upon reflection it becomes known with certainty (to he who is reflecting) that he is capable of having thoughts, and in fact that he is thinking. "A philosopher thinks and grasps reflexively his own act of thought. Here is a reality that has a certain ontological quality or value and the existence of which hic et nunc is indubitable to him." Furthermore, he is aware of the weakness of his thinking capability. He is aware of the fact that in order to increase what is actually intelligible for him he has to make use of a process called reasoning.[75] All that is potentially intelligible for him is not immediately and directly, intuitively, known by him. In Maritain's words,

> this philosopher knows that his thought which is a mystery of vitality to the world of bodies is at the same time a mystery of debility in itself. For it is subject to error and to time, to forgetfulness and to sleep, to distractions and to apathies More still in its very structure it suffers conditions of servitude hardly worthy of thought. It is not transparent to itself. It beats against objects that remain obscure to it. It must needs divide, compose, construct, logically elaborate data that are not logical but real.

Recognizing this weakness in his ability to know, it also becomes evident that there are intelligibilities which are beyond his knowing capabilities. He does not know and he cannot know all that is potentially intelligible. If he did know all things he would be all things.[76] And conversely, all of what he would be, would be all that is intelligible; or all of what he would be, would be all intelligibilities,

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[75]Even Descartes, who began with the incorrect assumption that his clear and distinct ideas were immediately evident to him, (and thus rejected the scholastic process of reasoning (see above, p. 34)) recognized the necessity of deducing the rest of what was to be known from such ideas.

[76]It will be remembered that knowing is essentially being--as taking unto oneself in the manner of intelligibility that which is known.

(and thus he could only think of himself). If he were to be all things by knowing all things he would be sufficient unto himself. However, he does not know all that there is to know. He is not a unity of intelligibilities; his knowledge is not a unified knowledge. He only knows various things. He is a fragmentation of intelligibilities. He does not have the "privileges of pure thought." Since his knowledge is not a unity of all intelligibilities, it is not sufficient unto itself. "From the moment that there are diverse things, no one suffices unto itself to exist, otherwise it would be the all." Thus his thoughts, his knowledge, is not self-sufficient because it is not unified by knowing all things. Since it is not self-sufficient it depends on something else as the cause of its being.

> In the case at hand, the philosopher may be said to experience the non-sufficiency of his own thought unto itself. . . . But he cannot think this non-sufficiency unto itself of his own thought without knowing that his thought depends on another. It depends, that is to say, not only on the material conditions that limit it from below, but on a certain unknown from which it holds its very actuality and its being as thought, and which is itself, consequently, thought or suprathought. In me, with me, it causes my act of thought insofar as my thought has being. . . . There must, therefore, be a thought which is thought, and which is the first cause of my thought. From it must be excluded absolutely any relation as a stuff or any material causality whatever with regard to my thought. It is a cause which compenetrates with its pure efficiency the whole being of my thought, and is absolutely separated in its essence from that same thought (which thus remains really my thought). It is the absolutely uncaused Thought itself which causes in me and with me my act of thought.

Furthermore, this uncaused, absolutely pure Thought which exists by itself, a se, is the height of perfection of all that there is,[77] and its perfection is implied in its self-sufficient existence. "Abso-

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[77]This should not be confused with an anthropomorphizing of God, or the construction of an image of perfected beings.

lutely self-sufficient for existing, it is pure act, and therefore infinitely perfect; knowing that it exists, I deduce its infinite perfection from its aseity."[78]

Thus from the act of making thought the object of thought (which essentially consists of being), and by proceeding with ananoetic intellection, i.e., by proceeding on analogy with the recognition of the actuality of our thought (an analogate of the analogous concept of thought), we have attained knowledge of another analogate of the analogue; and this analogate is far superior in actuality to our knowledge of it. As Maritain states, the ananoetic intellection here set forth

> has necessarily involved raising to the pure state the analogous and polyvalent object of concept: thought. And the superior analogate thus attained as absolute Thought infinitely surpasses the concept of thought, since it is not only thought, but being per se, and every perfection belonging to the transcendental order; and since it is all that in absolute simplicity and unity. It is what the analogous concept, thought, signifies; that and infinitely more.[79]

We have thus completed a brief sketch of the various modes of being which can be the objects of knowledge proper to the respective speculative sciences which seek to attain such knowledge. We have seen that sensible being is the object of knowledge acquired by way of the first degree of abstraction. The experimental sciences attempt to attain knowledge of the sensible of sensible extramental things, and knowledge of the essences of such are only hinted at. The philosophy of nature, however, deals directly with the essences (the being) of sensible being. We have also seen that being as such is the object of knowledge

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[78]Maritain, The Degrees of Knowledge, pp. 222-4.

[79]Ibid., pp. 224-5.

acquired by way of the third degree of abstraction. Metaphysicians attempt to attain knowledge of the nature of the existence both of that which exists (or can exist) with matter and that which exists (or can exist) without matter. With regard to the latter, we have seen that knowledge of the nature of the existence of that which exists without matter includes metaphysical knowledge of God, whose essence is His existence. Thus, we have followed Maritain's outline of the possible ways of knowing the diversities of being. We must now turn from this speculative knowledge of being, which is knowledge for its own sake--oriented to truth--to practical knowledge, the purpose of which is to determine the good of man and to direct him toward it, i.e., the purpose of knowledge of being is no longer for its own sake but for the sake of the good of man.

CHAPTER IV

MORAL KNOWLEDGE

In the preceding chapters we have considered speculative knowledge. We have considered the various ways in which the speculative sciences inquire into the diversities of being. That is, we have considered the various kinds of knowledge which are proper to the various kinds of speculative sciences. We have seen the major possibilities of speculative knowledge of what there is. The purpose of this knowledge is contained in itself, i.e., it is acquired for its own sake. Speculative philosophy considers intelligible structures and necessities of being; "it considers existence according to the intelligible values which are realized in it."[1]

We turn in this chapter to a consideration of a kind of practical knowledge. The aim of practical knowledge is toward the concrete actions of man in his existence here and now. Practical knowledge seeks existence in order to produce it rather than to know it as in speculative knowledge.[2] The practical intellect acquires knowledge which guides man in his actions. Practical philosophy considers human existence in terms of its concrete, historical, existential situation. It "considers man and human existence from the point of view of

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[1]Jacques Maritain, Science and Wisdom, (London: Geoffrey Bles, Ltd., 1940), p. 108.

[2]Maritain, A Preface to Metaphysics, p. 28.

the concrete and historical movement which leads them to their end; from the point of view of human acts which have to be posited here and now, in conformity with their rule."[3] It is directed toward the particular conditions of man's existence rather than toward the essences or natures (whether specific and generic, or of existence itself) realized in existents. Maritain explains the difference between speculative knowledge and practical knowledge in the following way.

> In the SPECULATIVE ORDER the mind, considering the world of existence, evokes from this world universes of intelligibility which are increasingly pure, increasingly detached from matter: . . . Then, coming back to the world of existence considered as such, the mind takes as its concern human action going on in that world and philosophizing, this time in the PRACTICAL ORDER, seeks to know, no longer for the sake of knowing but for the sake of acting;[4]

In other words, speculative and practical knowledge differ with regard to purpose. "It is by the ends they seek (to contemplate an object, to do something) that the speculative and practical differ."[5] Thus, practical knowledge cannot be reduced to speculative knowledge, since the former has an area which is proper to it, namely, the area of action. Knowledge of this order or area cannot be given as, or in terms of, speculative knowledge.[6]

Within practical knowledge which deals with the field of human actions, there is a further distinction to be made. This distinction is between speculatively practical, practically practical, and prudential knowledge.

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[3]Maritain, Science and Wisdom, p. 108.

[4]Maritain, The Degrees of Knowledge, pp. 311-2.

[5]Ibid., p. 458.

[6]Ibid., pp. 315-6.

Speculatively practical knowledge, the knowledge of moral philosophy or ethics, is, as the name indicates, speculative in one respect and practical in another. Moral philosophy is speculative in that it examines its object (human actions) in order to extract the general principles or the "intelligible constitutives" of such; and more importantly, it is speculative in that it attempts to formulate the general principles which ought to be the foundation of acts.[7] It is a science because it consists of determining or acquiring knowledge of proper and improper actions in general or knowledge of principles of actions in order to direct actions, rather than simply directing particular actions. "In the speculatively-practical sciences, the concepts preserve their naked value of abstraction and intelligibility."[8] Furthermore, the truth of speculatively practical knowledge does not depend on, or is not determined by, actions which actually are performed; its "truth implies neither regulation by right appetite nor affective motion."[9] Truth in moral philosophy is concerned with knowing as the foundation of directing actions. "Thus, in moral philosophy the mode of science is not practical but speculative as to the fundamental equipment of knowledge and as to the structure of notions and definitions."[10] On the other hand, moral philosophy is practical in that its purpose is to direct action rather than merely to know. If this were not the case, moral philosophy would have to be considered one of the

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[7]Ibid., p. 457.

[8]Maritain, Science and Wisdom, p. 139.

[9]Maritain, The Degrees of Knowledge, p. 457.

[10]Ibid., p. 458.

speculative sciences. In fact, however, it does not seek knowledge of the general principles of action simply for the sake of knowing them. Rather it seeks knowledge of such for the purpose of directing action. Maritain elucidates the speculative knowing and the practical directing of moral knowledge as follows:

> Moral philosophy proposes to regulate action from afar, and therefore, to act from afar upon the will through knowledge itself. It is in view of this end that it organizes its materials into a practical context and discovers the ontological articulations which are concerned with action by adapting to its practical end a conceptual equipment, to wit, those modes of defining and judging which are typically speculative. . . .
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> . . . moral philosophy proceeds in a practical manner as to its proper finalities, the conditions of its object, and, therefore, its proper law of argumentation; and that its mode remains, nevertheless, speculative and explanatory as regards the general or fundamental equipment of knowledge. From this aspect moral philosophy is considered strictly as philosophy or speculatively practical knowledge.[11]

At the "opposite end" of practical knowledge is what might be called the knowledge of prudence. The sole purpose of this knowledge is to direct actions. It is concerned completely with the contingencies of man's existential situation in fulfilling its purpose of directing actions. It is in no way concerned, as moral philosophy is, with the organization of universal truths about such actions. Its truth consists simply in the direction of actions itself. In prudential knowledge practical knowledge

> comes in contact with the concrete and singular act to be done here and now, within the indefinite variety of contingent circumstances. In immediate contact with action, because immediately regulative of action, right practical knowledge is no longer what we call wisdom, scientific knowledge, because at this level its object is not only a practical object to be done, but that practical object taken in its very singularity, in its relation with the ends actually willed by my incommunicable person--and that is not an object of science. Right practical

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[11]Ibid., p. 456.

> knowledge, as the immediate regulator of action, is the virtue of prudence. It judges and commands what is to be done here and now.[12]

Practically practical knowledge does not analyze ideal and actual human actions into their explanatory principles. It moves in the opposite direction, so to speak. It moves toward the actions themselves in order to direct them. Practically practical knowledge consists of the formation of principles based on those established in moral philosophy which apply to more specific areas of action. The purpose here is to direct actions based on principles which are formulated from the principles developed in moral philosophy and which relate to the area of activity to be directed. Thus, it not only depends on moral philosophy as the basis for the more specific principles it forms, but also on prudential knowledge of concrete situations for the applicability of its principles to the specific area of activity. With regard to the truth of such knowledge, it consists in directing actions, but based upon knowledge of the principles of such. Maritain says the following concerning practically practical knowledge.

> This is a science because even though it is much more particularized than moral theology or ethics, even though it considers the details of cases, it nevertheless moves within the universal and the raisons d'etre as within its proper object. But as to the fundamental equipment of knowledge itself or as to the structure of notions and definitions, its procedure follows a wholly different mode than does ethics or moral theology. The very method of science is reversed. The whole mode of science here is practical. What does that mean? It means that there is no question here of explaining and resolving a truth, even a practical truth, into its reasons and principles. The question is to prepare for action and to assign its proximate rules.[13]

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[12]Ibid., p. 314.

[13]Ibid., pp. 314-5.

The particular concern of this chapter is with speculatively practical knowledge, or with moral philosophy. There are two purposes for our concern here with this kind of knowledge which correspond to the two general interests of this thesis.

It is often assumed that the knowledge of the experimental sciences is the only knowledge, or is at least the most important knowledge, which can be useful for the improvement or the good of the human condition. Or, in other words, it is often assumed that the knowledge of the experimental sciences as it is technologically applied to the world of things is the only knowledge which is needed in order to improve the human condition. We should keep in mind, however, that the speculative knowledge of the experimental sciences and the philosophy of nature which, in part, deals with things which can perform actions, is different from speculatively practical knowledge in that the former deals with things which can perform actions purely for the sake of knowledge and not for the sake of directing such actions. Furthermore, the application of such speculative knowledge to the controlling of that which is known cannot take place in the absence of moral knowledge concerning what <u>should</u> or <u>should not</u> be controlled for the improvement of the human condition. It must be recognized then, that the speculative knowledge of the experimental sciences cannot be applied to the improvement of the human condition without the supervision of moral knowledge.[14]

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[14]Thus, when behaviorists, for example, propose the directing of human behavior solely on the basis of their explanation of such in terms of rewards and punishments, they must recognize that they are stepping out of their proper realm, as behaviorists, and are entering the area of moral knowledge, in which they must make decisions concerning proper and improper behavior--decisions which can hardly be made on the basis of the knowledge they are interested in acquiring. Furthermore, the behaviorist's interest in the direction of human behav-

Thus, in order to again place the experimental sciences in their proper epistemological perspective, we must consider the realm of knowledge proper to practical philosophy, particularly, moral philosophy. Corresponding to this purpose, the scientific nature of ethics must become clear in order that ethics itself should not be regarded as unable to offer certain knowledge relevant to human actions.

In previous chapters, we have dealt directly with our knowledge of being and its diversities or various modes. Although the purpose of practical knowledge is not the acquisition of knowledge for its own sake, but rather is that of directing action, our concern for the involvement or role of being in such knowledge will not be absent. In our present discussion of Maritain's moral philosophy the other intention--the strictly philosophical purpose--is to discuss the involvement or the role which knowledge of the Being of perfect Goodness has in the knowledge of the actions of man in his existential situation. In other words, the other purpose of this chapter is to discuss the relation that knowledge of God (theological knowledge) has to knowledge of man's ac-

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ior according to their principles of rewards and punishments involves either the contention or the assumption that man is completely conditioned by forces other than himself, or that he has no freedom of choice regarding his actions. Since the purpose of moral knowledge is to direct human action, or to choose certain actions as opposed to others, if man's freedom of choice regarding his actions is denied, there would be no need for knowledge concerning which actions are correct and which actions are incorrect, i.e., there would be no need for moral knowledge. But in fact there is a need for moral knowledge as the behaviorist himself admits by his interest in directing human actions. Thus on the one hand, when the behaviorist becomes interested in directing human action he becomes involved in the moral realm, i.e., he has to make moral decisions concerning the correctness or incorrectness of actions in order to determine which actions are to be performed and which are not. On the other hand, when he becomes interested in directing human action according to the principles of reward and punishment, in which it is assumed or contended that man's actions are determined by rewards and punishments, he denies the existence of the moral realm which of necessity requires the involvement of freedom of choice.

tions (moral knowledge). On both sides of the relation the involvement of being is apparent; there is the perfect, all-knowing, uncreated Being, or He who IS, and there is the existential situation of man in which his actions occur.

We must begin by establishing the necessity of the involvement of theological knowledge in knowledge of human actions. We shall then consider what it is that theology contributes, and we shall conclude with a consideration of the distinction between theological knowledge of human actions (moral theology) and philosophical knowledge of human actions which relies on theological truth (moral philosophy adequately considered). By way of this discussion, the possibility of scientific moral knowledge, or the place of ethics as a science, will become clear.[15]

The Inadequacy of Purely Philosophical Moral Knowledge

Moral Philosophy as Non-scientific

Purely philosophical moral "science," or a "science"[16] of human actions which does not allow for the acceptance of theological knowledge, is left with essentially the same problem of knowledge which is common to all other sciences, namely the problem of acquiring truly sci-

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[15]Natural or pre-philosophic moral knowledge--moral knowledge "of the ordinary man, or that of common experience"--is not a matter of concern here. For a discussion of this kind of moral knowledge see Maritain's discussion of such in "The 'Natural' Knowledge of Moral Values," in Joseph W. Evans and Leo R. Ward, eds., Challenges and Renewals, (Notre Dame: University of Notre Dame Press, 1966), pp. 229-38.

[16]The reason for the quotation marks will become evident in a moment.

entific knowledge of contingent things, or knowledge of the necessities and universalities which are realized in the world of actual contingent existence. With regard to moral knowledge the problem may be stated as that of acquiring scientific knowledge of contingent human actions. There is a crucial difference, however, between the problem of speculative knowledge and the problem of moral knowledge, or of practical knowledge in general. As has been seen, the knowledge of the speculative sciences can be accounted for. Moral knowledge, however, which is purely philosophical moral knowledge (knowledge which consists of conclusions arrived at merely through the use of natural reason) cannot offer an adequate solution to the problem of knowledge, i.e., purely philosophical moral knowledge cannot be scientific knowledge. Thus, the solution to the problem of accounting for moral knowledge requires the involvement of more than just natural reason. First, however, let us consider why purely philosophical moral knowledge cannot be scientific.

The difference referred to here between the problem of speculative knowledge and the problem of practical knowledge is a result of a difference, not yet mentioned, between speculative knowledge and practical knowledge, namely, the difference in the mode or type of conceptualization proper to each. In speculative knowledge, it will be remembered, the concepts formulated are resolved in being. Or, the ultimate termination of concepts involved in speculative knowledge is being.[17]

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[17]Even though the experimental sciences attempt to attain knowledge of the being of sensible being, they must take exception to this because their concepts are resolved in the sensible of sensible being, and thus the being of sensible being only remains hinted at.

In practical knowledge, however, not only is the purpose of such, that of attaining knowledge of human actions, but also the concepts involved in such knowledge have their ultimate termination in human actions. Speculative philosophy moves from contingent extramental things "towards the Timeless by three moments of abstractive vision."[18] Practical philosophy, however, resolves its concepts in human actions. More specifically, with regard to purely philosophical moral knowledge, the principles of such, formulated by natural reason, are always resolved in, or are to be explained ultimately in terms of, human actions. The principles of action of a purely philosophical moral knowledge are meaningless unless they can be explained in terms of human action. For example, the principles of action such as the duty of Kant, the liberty of Sartre, or the utility of Mill, which are formulated solely by natural reason, are resolved in human actions. They are dependent upon human actions for their meaning. If utility is taken as the principle or end of human action, the concept of utility here has meaning because of its explanation in terms of human actions. It is not explainable here in terms of concepts of greater universality. The same is true for all other principles of action which are formulated through natural reason.

Because purely philosophical moral knowledge resolves its concepts in human actions it cannot be scientific knowledge. The reason for this is that human actions are contingent. The resolution of concepts in contingent human actions can be compared to the resolution of concepts in the sensible of the sensible real as is proper to the ex-

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[18]Maritain, Science and Wisdom, p. 108.

perimental sciences. It was noted previously[19] that the experimental sciences are imperfect sciences because of the resolution of their concepts in the sensible, or in that of the sensible real which is subject to change. So also, the concepts of purely philosophical moral knowledge are resolved in something changable, namely, the actions of men capable of free choice. Thus the principles of human action which are resolved in contingent human actions, i.e., those principles of purely philosophical moral knowledge, are subject to the changes of those actions, and are thus themselves changable. In other words, the principles of purely philosophical moral knowledge are not necessarily in conformity with the actions which are, and thus, cannot constitute scientific knowledge.[20]

This same point, that purely philosophical moral philosophy cannot be a practical science because the knowledge offered by such lacks the requirement of necessity, can be seen by pointing out that the principles of such carry no necessity with regard to their being principles which direct good actions, i.e., there is no necessity with regard to their being normative or obligatory. Let us first consider two passages from Maritain which point to this characteristic of purely phi-

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[19]See above, p. 50.

[20]If man existed in a pure state of nature, a purely philosophical science of human actions would be possible. In a pure state of nature man would not have existed as a fallen creature capable of evil. With his freedom of choice, man would always choose the good. If this were the case, then the contingencies of man's actions would also be absent, and it would thus be possible, through the processes of natural reason, to acquire a scientific knowledge of human actions, or a knowledge of the principles or ends, and causes of human actions. In fact, however, man does not exist in a pure state of nature. Rather, he exists as a fallen creature who chooses to do evil. Thus, the problem exists of acquiring certain knowledge of the principles of human action.

losophical moral knowledge.

> But in the state of fallen and redeemed nature in which we actually live, a purely philosophical moral science would prescribe good acts, because it would be based on natural right--such as not to lie, not to commit injustice, to practice filial piety, etc.
>
> But the prescription of certain good acts is not enough to form a practical science, a true science of the use of freedom, a science which prescribes not only good acts, but which also determines how the acting subject can live a life of consistent goodness and organize rightly his whole universe of action.[21]

> It could also be pointed out that since, in this order, ends play the role of principles, practical philosophy is not limited to prescribing, as Kant would have had it. It is a science, it knows. But it does not completely and truly know its object, which is something to be done, unless it knows how it should be done. Thus, despite the major role experience plays in it, the knowledge that constitutes practical philosophy is not knowledge of simple observation. It is also, and essentially, a regulative science, a normative science.[22]

The opposition expressed here is as follows. On the one hand, there is the prescription of acts solely on the basis of "knowledge of simple observation" of human action. On the other hand, there is the knowledge of what should be done, and this knowledge involves norms which are not derived from observation of actual human actions. In the former case, the knowledge adequate to the prescription of actions is acquired or abstracted from various actual human actions. In the latter case, the knowledge adequate to the direction of actions is not dependent upon actual human actions. In other words, moral knowledge, which is dependent upon various actual human actions for its formulation, may result in the prescription of certain actions, but this prescription can have no normative basis, or it can have no obligation at-

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[21]Maritain, Science and Wisdom, p. 162.

[22]Maritain, The Degrees of Knowledge, p. 313.

tached to it, since knowledge of principles of actual actions is not knowledge of principles of correct or good actions--or is not knowledge of principles which direct what actions should or should not be performed. Thus, any principle of action which is dependent upon actual human actions for its formulation (and is thus a principle of actual human actions) does not carry an obligation with it. Or in other words, there is no reason, and thus there is no necessity, for it to be normative for all people or even for all the actions of one person.[23] Thus an ethic which has knowledge adequate to the prescription of "certain good acts" in this sense, does not consist of knowledge of the necessary normative principles of free human action, and thus is not to be regarded as scientific.[24]

Moral Philosophy as Impractical

Another inadequacy of a purely philosophical ethic, according

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[23]It might be objected that Kant's maxim, that only those actions should be performed which one regards as universalizable, carries normative weight since it takes all people into consideration. This objection can be answered by pointing out that the judgments concerning which actions should be subject to universalization are individual judgments without any common criterion. This rule of universalization will not help as the criterion for all of the actions of one man either, because even though each action is to be judged according to this rule, there is no criterion for determining what acts ought to be universalized. For example, the action of making a promise with the intention of breaking it supposedly should not be performed, since its universalization would result in the disruption of the welfare of the person deciding whether to perform the action and the welfare of others. What is not elucidated is what it is that would make the meaninglessness of promises constitute an evil. Thus the individual is left without a criterion for determining which of his actions ought to be universalized.

[24]Because of this, purely philosophical moral knowledge is not only not scientific, but also, it is not able to direct properly human actions.

to Maritain is that it fails to be truly practical.

> A purely philosophical moral philosophy would only provide us with a system of ends, of rules, and of achieved virtue (perfectae virtutes). This system would be doubtless good in itself, but it would be a merely theoretical system, designed to establish in a state of goodness a separated essence, a creature of possibility, a human being other than man as we know him.[25]

In other words, in the state of fallen and redeemed nature, purely philosophical moral knowledge remains only a theoretical construction of ideal actions, and it would not be a truly practical science. It would not be practical because it would not account for the possibility of man in his fallen nature to attain the ideal constructed.

> I said above that every great moral system is in reality an effort to ask man, in one manner or another and to one degree or another, to go beyond his natural condition in some way. These systems in fact (let us mention here only those which have been examined in the present work) ask man . . . to go beyond the human condition: either as with Plato, Aristotle, the Stoics, Epicurus, Kant, Sartre, or Bergson, by attaching himself to a good superior to human life, or to a happiness in which human life is achieved rationally, or to virtue, or to pleasure decanted to the point of indifference, or to duty, or to liberty, or to the sovereign love to which the great mystics call us; or, as with Hegel, Marx, Comte or Dewey, by deifying nature. But even in those cases where the effort to go beyond the human condition is the most authentic, there is no question, except in Bergson (and, in the name of faith, in Kierkegaard) of truly transcending it. And the attempt to go beyond the human condition by the sole means of man remains in the last analysis doomed either to futility or to illusion. It is only with Christianity that the effort to go beyond the human condition comes to real fruition.[26]

Thus a purely philosophical ethic, an ethic which accepts only the natural capabilities of man, or the capabilities subject to reason, remains incapable of aiding or directing man to "go beyond the human condition."

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[25]Maritain, Science and Wisdom, p. 163.

[26]Jacques Maritain, Moral Philosophy: An Historical and Critical Survey of the Great Systems, (New York: Charles Scribner's Sons, 1964), p. 458.

In pointing out these inadequacies of purely philosophical moral knowledge, Maritain does not wish to deny the existence of such knowledge, or the existence of a "natural ethic" altogether.

> As I have tried to point out in an earlier work[1] natural ethics really exists. It establishes precious truths and provides the theologian with indispensable notional instruments. But taken in itself, this moral philosophy inadequately considered is only a beginning or sketch of science, or a mass of philosophical materials prepared ready for science.[27]

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[1]De la Philosophie Chretienne, annexe II. Sur l'Ethique naturelle.

The ends or principles of human action which are supplied by natural reason are temporal ends, and such ends, because of their inherent contingency can only by themselves, constitute a mass of philosophical data concerning human actions. They can only command the necessity and universality required by scientific knowledge if they have their foundation in something other than human action, namely in the Being of perfect Goodness. The temporal ends of natural ethics can only cross the "threshold of science" when they have been "integrated as part of a living whole in a moral science capable of organizing in scientific fashion all these materials because it does not ignore the true last end of man and the actual conditions of his existence."[28] Maritain calls this position of natural ethics that of being "subalternated" to theology, or specifically, to moral theology. Before we consider moral philosophy in its subalternation to moral theology, we shall make a brief digression and consider what it is that moral philosophy needs to accept from theology in order to be adequately considered.

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[27]Maritain, Science and Wisdom, p. 166.

[28]Ibid.

The True Final End of Man

We can reason, as we have just done, concerning the inadequacies of purely philosophical moral knowledge, or of moral philosophy as such. However, that which provides the solution to these inadequacies cannot be accepted on account of argumentation appealing to reason, but rather can only be accepted through faith. We can rationally explain how the truths of moral theology provide the solutions we are looking for (as we will attempt to do in the next section) but such an explanation presupposes the acceptance through faith of those theological truths needed. The most fundamental precept of theological knowledge which needs to be accepted by moral philosophy is the object of our concern here.

The ultimate end of human life, and thus of human actions, is a supernatural End. The end which provides the ideal, the "ought," for our actions consists of a participatory existence in God, the Being of perfect Goodness, and is effected in this world by love of God and his creation. Man goes "beyond the human condition" by even the most insignificant of his acts if it is motivated by love of God, because then that act has a supernatural "eternal value."[29] At this point, certain passages in Maritain speak well enough for themselves.

> It came as a strange novelty to learn that the final End of human life--not only as supreme Value good in itself and for itself, but as the supreme Object the possession of which constitutes human happiness--is God Himself, the infinite Good, self-subsistent Being. God in His intimate life, the uncreated Glory itself is the end in which our appetite for happiness will be satisfied beyond measure.[30]

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[29]Maritain, Moral Philosophy, p. 456.

[30]Ibid., p. 75.

> For St. John of the Cross, as for St. Thomas Aquinas and the whole Christian tradition, the final end of human life is transformation in God, 'to become God by participation,' which is fully achieved in heaven by the beatific vision and beatific love, and fulfilled here below, in faith, by love. The supernatural love of charity, by which we love God and creatures with a properly divine love, makes us one with God and causes us to be one same spirit with Him. Qui adhaeret Deo, unus spiritus est. 'The end of all actions and human affections,' writes St. Thomas, 'is the love of God, that is why there is no measure regulating that love; it is itself the measure and measures everything else, and can never be too great. The interior act of charity has the ratio of an end because the highest good of man is that the soul adhere to God, in accordance with the words of the Psalmist, 'It is good to cling to God. . . .''[31]

The loving of the divine Good, as eloquently described above, is of capital importance. Christian morality consists primarily of the loving of the divine Good, God, and it is because of this that it is also a morality of man's happiness. It does not consist primarily of man's happiness. "Christian morality is a morality of beatitude, but first and foremost it is a morality of the divine Good supremely loved."[32] That is, man's desire for happiness is not the basis for his actions, but rather, man's love of the divine Good is the basis of his actions, and because of this love he attains happiness. Man's motivation for his actions is not the satisfaction of his own desire for happiness, but this desire is satisfied by love of the divine Good.[33]

We can also notice that God, the divine Good, is the object of the theological virtues which Christianity also brings to bear on human actions. These theological virtues compose a supernatural order of virtue which is the perfecting of the natural order of virtues. The

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[31]Maritain, The Degrees of Knowledge, pp. 320-2.

[32]Maritain, Moral Philosophy, p. 79.

[33]Ibid., pp. 78-80.

virtues of faith, hope, and most importantly, love, are the theological virtues of Christian morality, and the object of these virtues is the divine Good in the supernatural order rather than the goods of the human order or the goods naturally attainable by man which are enumerated by the moral virtues.[34]

One final point should be made here which concerns a distinction between the Christian notion of the divine Good being the final end of man, and the Aristotelian notion of the Good as the final end of man. Maritain distinguishes between the absolute ultimate End and the subjective ultimate End of man. The former is God himself, and the latter is the possession of God, or "it is the direct union with the absolute ultimate End, good in and for itself, which constitutes the subjective ultimate End of the human being, his final fulfillment, his perfect and eternal happiness."[35] For Aristotle, however, the Good is man's happiness. He failed to distinguish between the Good and man's happiness, or between the absolute ultimate End and man's happiness on account of his subjective ultimate End being what it is. This distinction must be made in order to retain the distinction between the perfect Goodness of God and the weakness of the human condition.

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[34]Ibid., p. 80.

[35]Ibid., p. 76. Maritain points out in this connection that the subjective ultimate End of man would not be what it is without the grace of God because the absolute ultimate End is of the supernatural order and it does not arise out of the natural order. Thus, man needs more than natural abilities in order for his subjective ultimate End to consist of a union with the absolute ultimate End. Without the grace of God there would be an "infinite abyss" between the absolute ultimate End and man's subjective ultimate End. "The astonishing tidings brought by Christianity were that in fact, and by the free and gratuitous superabundance of divine generosity, the separation, the cleavage of which we have just spoken between the absolute ultimate End and the subjective ultimate End does not exist for man." (Ibid., 77.)

Let us now proceed with our consideration of the subalternation of moral philosophy to moral theology.

Moral Philosophy as Subalternated to Moral Theology

If moral philosophy is considered as subalternated to moral theology, then the problem encountered by purely philosophical moral knowledge receives its solution. This problem, it will be remembered, is that of not having the certitude and universality required by scientific knowledge, and that of remaining a theoretical construct by not being able to account for the possibility of man's attainment of the ideal. We must here consider how subalternation results in the solution to these problems. We must also, in the present discussion of subalternation, consider the differences and the subalternating relation between moral theology and moral philosophy.

Moral Philosophy as a Practical Science

A subalternated science is a science in which the truths or principles proper to it are known scientifically because of their dependence on the truths or principles of the subalternating science. It is through the truths or principles of the subalternating science that the truths or principles of the subalternated science are known scientifically. Thus, a subalternated science "cannot even exist as science without the illumination it receives from the superior science; it is established as a science, i.e., as knowledge which is equipped for truth and adequate to its object, only by receiving the principles

it needs from the superior science."[36] Moral philosophy is subalternated to moral theology, then, in that the former recognizes and accepts the certain and universal knowledge of the latter. The knowledge of moral philosophy, or the principles of action developed by such, attain the status of scientific knowledge by being founded in the knowledge proper to the science of moral theology. In other words, the concepts of moral philosophy subalternated to moral theology are not resolved in the contingencies of human action, but rather, are resolved in the Being of perfect Goodness, which is known as the final End of man's actions by moral theology. Furthermore, it is only when moral philosophy is firmly grounded in the certain and universal knowledge of moral theology that the principles of moral philosophy attain the obligatory nature required by a norm for the regulation and direction of all human actions.

The solution to the second problem of purely philosophical moral knowledge which was discussed is also found in the recognition of the involvement of the supernatural in moral knowledge. The problem was that purely philosophical moral knowledge, since it only considered man's abilities which are susceptable to being known through natural reason, was not able to account for man's attainment of the ideal which was constructed. With the recognition of the involvement of the supernatural in moral knowledge, however, one of the truths which moral philosophy accepts on faith from moral theology is the grace of God toward man. "That it is possible for man to attain absolute happiness is not

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[36]Maritain, Science and Wisdom, p. 111.

a datum of reason or of philosophy, but of Christian faith."[37] The possibility for man to attain the ideal, the final End, offered by a Christian ethic, or moral philosophy subalternated to moral theology, is known as actual by faith, and it is actually the case because of the grace of God toward man. It is "by the free and gratuitous superabundance of divine generosity," that man can attain his final End.[38]

The Relation and Difference Between Moral Philosophy and Moral Theology

We have so far only referred to subalternation as that of the subalternated science accepting the truths of the subalternating science. This obviously is a very general notion of the relation between the two. Thus we must consider more closely the relation and difference between the knowledge of the subalternating science of moral theology, and the knowledge of the subalternated science of moral philosophy.

There are two fundamental differences between the knowledge of moral theology and the knowledge of moral philosophy. By considering these two differences in the kind of knowledge proper to each we will also be able to understand better the relation of subalternation between these two different kinds of knowledge of human actions. The first difference concerns the mode of conceptualization involved in each. The second difference, which results from the first, concerns the different aspects of the object of moral knowledge (human actions) which are dealt with by moral philosophy and moral theology.

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[37]Maritain, Moral Philosophy, p. 76.

[38]Ibid., p. 77.

The object of moral knowledge in general is human actions. Human actions are, what may be called, the formal perspective of man which is being considered, or "the formal perspective of the object as thing."[39] There are also different ways of conceptualizing this object of knowledge--the actions of man. These different ways or modes of conceptualization can be called "the formal perspective of the object as object, or the ratio formalis sub qua, the formal perspective under which the object, . . . is attained by the mind."[40] Maritain's term for referring to a formal perspective of conceptualization is "objective light."[41]

The mode of conceptualization of human acts which is proper to moral philosophy is that concerning human action which is knowable by natural, practical reason, (the principles or ends of human action which are knowable by natural reason). It considers human acts in terms of the principles of such which are knowable by natural reason. The objective light of moral philosophy then consists of that concerning human actions which is intelligible through reason. For moral theology, on the other hand, the objective light consists of the principles of

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[39]Maritain, Philosophy of Nature, p. 126.

[40]Ibid., pp. 127-8.

[41]Maritain formulates these distinctions between "the formal perspective of the object as thing," and "the formal perspective of the object as object" in connection with the distinctions between the speculative sciences, and he also uses them in connection with the distinctions between moral theology and moral philosophy. For example, the philosophy of nature and the experimental sciences have the same formal perspective (sensible being) of the object as thing (being as a whole), but they have differing formal perspectives of the object as object, or as conceptualized. The objective light of the former is the being of sensible being, and the objective light of the latter is the sensible of the sensible being. Sensible being is conceived insofar as it is being, and it is conceived insofar as it is sensible. These same distinctions were presented in greater detail in the former chapter, however, the terms presented here were not used.

human action which are intelligible ultimately through revelation.

The relation of subalternation between moral philosophy and moral theology can be explained in terms of their respective objective lights. As seen in a previous section, the principles of human action which are known by moral philosophy as such, or in purely philosophical moral knowledge, cannot constitute scientific knowledge. The objective light of moral philosophy alone is inadequate for the acquisition of scientific knowledge of human actions. What is needed is the objective light of moral theology. If the principles of human action which are known by revelation in moral theology are accepted by moral philosophy, then the principles known by moral philosophy participate in, or are grounded in the certitude and universality of the knowledge of moral theology. Consequently, moral philosophy in its position of subalternation to moral theology constitutes a science of human actions. "Moral philosophy adequately considered thus views human acts insofar as their regulation by human reason constitutes a universe of (practical) intelligibility, which only becomes a universe of science if reason listens to theology, and is thus assisted and perfected in the performance of its natural work."[42]

In order to explain this relation of subalternation more completely in view of the differing objective lights, it would be worthwhile to consider the differing complementary roles of faith and reason in the acquisition of the knowledge of moral theology (which re-

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[42]At this point, the solution offered by the subalternation of moral philosophy to moral theology to the problem, considered earlier, namely, that of moral philosophy as such not being scientific knowledge, can be understood. Maritain, Science and Wisdom, p. 187.

lies primarily on revelation requiring faith) and of the knowledge of moral philosophy (which relies primarily on reason).

In moral philosophy, faithful acceptance of theological truths relevant to human action elevates the process of reasoning in that reason is considered as a second principle cause of knowledge in moral philosophy. Knowledge of the theological truths which are relevant to human actions, and which are acquired through faith in that which is revealed, is the first principle cause of knowledge in moral philosophy. Just as the moon is a principle cause of light, it is a second principle cause because it receives its light from the first principle cause, the sun; so also, the process of reason is a principle cause of knowledge in moral philosophy, but it is a second principle cause because moral philosophy faithfully accepts the theological knowledge relevant to human actions.[43] It is through faith then that the philosopher involved in moral philosophy accepts the truths of theology, and this acceptance allows the knowledge acquired by reason to be considered as scientific knowledge. "In this way faith uplifts philosophy . . . so as to subalternate practical philosophy to theology. <u>It is the power of faith, communicated to the reason of the philosopher, which brings practical philosophy in subalternation to theology</u>."[44] Thus the process of reasoning in moral philosophy begins with the acceptance of theological truths. The reasoning in moral philosophy by which conclusions are reached makes use of theological premises which it accepts by faith, and because of this acceptance, the reasoning in moral phi-

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[43]Ibid., p. 194.

[44]Ibid., p. 197, (italics mine).

losophy is not purely philosophical. It must be remembered however that reason remains a principle cause of knowledge in moral philosophy. The objective light here is human aided by divine, and is not divine alone. "Moral philosophy adequately considered is a form of knowledge which is rooted on earth; but which being grafted on theological truths has for this reason a sap strong enough to lead it to true conclusions [concerning the] natural and supernatural mystery of human behavior."[45] That is, natural reasoning, aided by the truths of moral theology, is the source[46] of knowledge in moral philosophy, rather than divine revelation alone. Maritain summarizes the subalternation of moral philosophy to moral theology in terms of the mode of conceptualization, or in terms of the relation of their respective objective lights, in the following passage.

> And so we understand that moral philosophy adequately considered receives conclusions elaborated by theology not as simple matter of fact which must be taken into account, but as true principles of science. And it makes use of them itself just as every other subalternated science makes use of the principles received from the subalternating science. But in this case the principles received do not constitute all the principles of the subalternated science. They are received so as to perfect and complete other principles of knowledge. These two sets of principles have their sources in two different universes, one in the universe of the Godhead, and the other in the universe of created nature. Which means that the light of moral philosophy adequately considered, while it implies a certain participation in the light of theology, is a light necessarily inferior to the light of theology. And it is for this reason that it can co-exist in the subject with theology, without being lost in or identified with it.
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> In brief, faith and the light of divine revelation can themselves form a science by making use ministerially of the truths of reason. And that science is theology. Or they can help and ele-

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[45] Ibid., p. 111-2.

[46] The term "source" is obviously used here in terms of the mode of conceptualization and not in terms of the object of knowledge. That is, no trace of rationalism is to be looked for here.

> vate reason in its effort to form for itself and in virtue of an intellectual need of its nature a (practical) science which cannot be rightly constituted without this aid--that is to say, without putting trust in the truths established by theology and without being subalternated to the 'impression in us of the divine mind'. And this science is moral philosophy adequately considered.[47]

The complementary roles of faith and reason in moral theology, however, differ from the roles of reason and faith in moral philosophy. It would be well to consider these roles here as a point of contrast.

The role of reason in moral theology, and in theology in general, is that of an "instrumental and ministerial cause in relation to the light of faith."[48] What does this mean? Theology does not consist of the application of philosophical reasoning to the data of revelation. It does not submit the data of revelation to human reasoning, or judgment and discernment. Rather, just the opposite is the case. Theology consists of judging the results of human reason by the revealed data. It consists of submitting or subordinating the results of human reason to the revealed data accepted by faith. "Thus, moral theology is in no sense simply moral philosophy enriched by the data of faith. Nor is it moral philosophy as enlightened and elevated by faith."[49] As indicated above, the objective light of moral theology consists of that which is known of human actions through revelation and our faith in such. The role which the human element of reason plays in this objective light is that of an instrumental aid for the understanding of that which must be accepted as true by faith.

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[47]Maritain, Science and Wisdom, pp. 200-1.

[48]Ibid., p. 194.

[49]Ibid., p. 113.

Thus, the difference in the respective objective lights, or the modes of conceptualization of moral philosophy and moral theology--the former consisting of the principles known through reason perfected by those known through faith, and the latter consisting of revealed principles known through faith--is one fundamental difference between moral philosophy and moral theology. The subalternation of moral philosophy to moral theology in terms of their differing objective lights, consists of the fact that the principles of moral philosophy, known by natural reason, need and find their perfection in the principles of moral theology which are known through faith.

We must now indicate briefly the second difference between moral philosophy and moral theology, which concerns the different aspects of human actions which are dealt with by each. As indicated previously, human action is the formal perspective of the object, man, as an actually existing thing, and it is this formal perspective which is considered in moral knowledge. Also, as just considered, different formal perspectives of the object as object are proper to moral philosophy and moral theology. This difference in objective light "brings in its turn a (specific) diversity in what may be called induced or secondary formal perspectives of reality, in the aspects according to which the same reality of human behaviour is presented to different sciences."[50] Quite simply, these different aspects of the same object of knowledge (human action) can be stated as follows. The aspect of human action which is presented to moral philosophy consists of the natural and temporal ends or principles of human action. The aspect of

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[50]Ibid., p. 178.

human action which is presented to moral theology, on the other hand, consists of the supernatural last End of human action. The question now concerns how the supernatural last End of human action is involved in, or related to, moral philosophy. The appropriate response is that the natural ends of human behavior are fulfilled or are completed by and in the supernatural last End. The supernatural last End is a concern for moral philosophy insofar as the natural ends of man find their fulfillment and completion as ends in it. The supernatural last End, viewed from the point of view of moral philosophy, can be seen "as the supreme realization of the desires of [man's] nature, stretching beyond their limit through superabundance of grace."[51] Thus, the natural ends which are the primary concern of moral philosophy are not isolated from the supernatural End, since the former, as distinct ends which constitute a particular aspect of human action, are fulfilled by the latter.

We have thus presented an example of philosophical knowledge which is scientific and which forms the basis for the direction of human action in terms of the good of man. Moral philosophy adequately considered, or moral philosophy subalternated to moral theology, is not confronted with, and thus solves, the problems that purely philosophical moral philosophy is left with. Purely philosophical moral knowledge is inadequate as scientific knowledge because it relies sole-

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[51]At this point, the solution offered by the involvement of the supernatural in moral knowledge to the problem considered earlier, namely, that of moral philosophy as such not being able to account for man's attainment of the ideal, is again evident. Maritain, Science and Wisdom, p. 179.

ly on actual human actions for the formation of principles of action, and thus because it resolves its concepts in actual human actions which are contingent. Furthermore, purely philosophical moral knowledge is restricted to knowledge of man's capabilities which are subject to intelligibility through reason, i.e., those capabilities of man's fallen nature. Because of this restriction, purely philosophical moral knowledge cannot account for the possibility of man acting as the principles formulated maintain he should. Moral philosophy subalternated to moral theology solves these problems through the involvement of the Being of perfect Goodness. The certainty of the final End for the orientation of all man's actions, and the possibility--given through the grace of God--of attaining this final End are provided by the involvement of the Being of perfect Goodness. Moral philosophy, as subalternated to moral theology, accepts the truths of moral theology (particularly man's final End) which provide a "sure footing" for moral philosophy. Also, in the relation of subalternation, the supernatural final End for man's actions is the End which, through the grace of God, can actually be the fulfillment of man's natural ends.

CHAPTER V

CONCLUSION

This work has consisted essentially of a reflection on knowledge. We have been following Maritain in seeking to acquire knowledge about knowledge. This method of reflection has produced an account of knowledge which justifies knowledge of being other than the knower. We have followed the formation of the concept from the thing as thing or extramental being "through" the thing as object to the species or presentative form which intentionally exists as part of the knower and which is a formal sign by which the known object is intelligible; and we have returned to the data with which we began--extramental being--in the process of judgment. This reflection has also produced a defense of the scientific nature of the kinds of speculative knowledge and of a kind of practical knowledge. In the speculative order, modern science was placed among other kinds of scientific speculative knowledge. In the realm of the sensible real we have seen the orientation toward being of the philosophy of nature, and the orientation of the experimental sciences toward the sensible. In the realm of the trans-sensible we have seen the concern for the being as being of material being; and in the realm of the transintelligible we have seen the concern--through ananoetic intellection--for the being as being of immaterial being. In the practical order also, we have considered a kind of scientific knowledge, namely, moral philosophy as subalternated to

moral theology, or moral philosophy which relies on the Being of perfect Goodness and takes into consideration man's supernatural final End.

Although the present reflection has produced sufficient support for the major interests in this work, we are left with merely an outline. This outline is sufficient to point out the main kinds of knowledge and their major differences, and it is sufficient in showing that there are other kinds of knowledge than the knowledge of modern science which are scientific knowledge, i.e., certain and explanatory of what there is. This outline is also sufficient to point out that knowledge includes knowledge of actual and potential being which is other than the knower. It remains however, an outline which must be expanded and filled in.

The account of knowledge in general, which forms the basis for discussions of other kinds of knowledge, can be expanded in terms of its contrast with other accounts of knowledge, for only the most fundamental differences with some other important historical systems have been mentioned. We noted the major difference between an idealist account of knowledge and Maritain's account as being that of a difference concerning the role of extramental being, or the role of particular and contingent things, in the acquisition of knowledge. On the other hand, we have noted a major difference between empiricist's accounts of knowledge and Maritain's account as being that of a difference concerning the nature of the known as known. These contrasting positions, however, are capable certainly of being subjected to discussions of greater detail. There are other accounts of knowledge which have not been mentioned altogether, and these--for example, positivism or prag-

matism--can also be contrasted with Maritain's account.

The account of knowledge in general can also be expanded in terms of some specific topics which were involved in it. For example, a discussion of actuality and potentiality, particularly in terms of existence and intelligibility, could be undertaken for two reasons: first, because of its crucial position in discussions concerning the objects of knowledge; and secondly, because of its lack of involvement in major accounts of knowledge since Descartes. Also, the notions themselves and the implications of undesignated and designated matter could be explored in greater detail in view of their involvement in abstraction and particularly in the nature of the object of knowledge, i.e., the thing as thing and the thing as object.

The discussion of the different kinds of speculative sciences also remains as an outline. Each of these different kinds of knowledge can be reflected on and scrutinized in greater detail. Such inquiries can possibly be so detailed as to require actual involvement in the acquisition of the kind of knowledge being reflected upon. This is particularly true with regard to the knowledge of the experimental sciences. Although the philosophy of science is devoted to reflection upon such knowledge, adequate reflection in this area may require that the philosopher of science also be a scientist in the modern sense of the term. This gives an indication of the vast expanses which have yet to be explored in the philosophy of science. For example, the ways or the methods in which the experimental sciences rely on the sensible would be a topic of discussion which would follow the recognition that the complete reliance, of the experimental sciences, on the sensible, in order to give meaning to their concepts, is peculiar to those sci-

ences. Also, in view of the growing involvement of mathematics in the experimental sciences, especially physics, a detailed account of mathematical knowledge itself, and its application to the experimental sciences would be very much in order. After recognizing that the use of mathematics in the experimental sciences involves a transformation of the sensible real into mathematical terms (terms which always remain dependent upon the sensible real), one can ask what the nature of this transformation is, or how it is possible for such a transformation to occur in an explanation of the sensible real.

We have also left some related topics completely untouched. Barring limited capabilities in the time allotted, this work could have followed Maritain into other areas and inquired into the kind of knowledge which is proper to each. In the practical order we left off with a consideration of speculatively practical knowledge or moral knowledge. This investigation could have continued into Maritain's contributions to social and political philosophy. That is, we could follow the application of ethics to collective action and in doing so we could notice the relevance of man's supernatural final End to his societal life and the governing of such. Once it is understood that the knowledge concerning this aspect of man's life must be grounded in his supernatural final End, just as is the case with moral knowledge, then the application of this final End to the societal life of man and the governing of such can take place. For example, in view of the current popularity of sociological descriptive norms of collective human action, supplementary inquiries could be undertaken into the relevant obligatory norms emanating from man's final End. Also, in view of this application, one could enter into an interesting discussion

concerning the separation of church and state, and particularly concerning the propriety of ecclesiastical silence with regard to political and social affairs.

The realm of practically practical knowledge, which involves aesthetics for example, has also been left untouched. The area of aesthetics would prove to be fruitful for a continuation of the discussion of the involvement of being in knowledge. That is, we could proceed to inquire into the kind of knowledge--the knowledge of the artist--which is necessary for and results in the production of being. Maritain's philosophy of history could also be looked into in order to determine the nature of historical knowledge. Discussions concerning the practicality of historical knowledge or discussions concerning the purpose in general of acquiring historical knowledge would be involved here. One could inquire into the ways in which historical knowledge is speculative--if it is at all--and the ways in which it is practical. With regard to the certainty of historical knowledge there could be a dialogue with contemporary hermeneutical discussions by inquiring into the relevance of a critical realist account of knowledge to the determination of the proper rules of interpretation of historical texts. Finally, we could continue this work by investigating Maritain's philosophy of education and thus see how his account of knowledge works itself out in this area also. For example, we could investigate the implication--in terms of the communication of knowledge--of the contention that knowledge is knowledge of particular things as opposed to universal Ideas or Forms. We could inquire into the implications which this contention has for the presentation of knowledge. That is, in view of this contention, we could ask whether teaching consists of

the presentation of particular things as hints of the concept that one desires to communicate, or whether it consists of the presentation of the already made, universal Idea which is common to all those who know of it.

Thus, we have conducted a reflection on some differing kinds of knowledge. By examining a contemporary Thomistic critique of knowledge, we have discovered some things which are implicit in some historical accounts of knowledge and also some contemporary assumptions regarding knowledge. There remains, however, much which needs to be made explicit.

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