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[A. B. WOLTER]

KNOWLEDGE, PROCESS OF

Knowledge is a most ordinary human experience, while at the same time it is a most mysterious one. We know instinctively what it is, but we cannot clearly define it. With eyes open at day, we see countless objects. We know them; we hear, smell, taste, and touch things; we imagine some and remember others. We make affirmations and denials; we plan for the future; we try to solve problems. All the time, we are aware of doing these things, thus we are conscious of the many forms of knowing that can occupy the human mind: sense knowledge, both exterior (seeing and hearing) and interior (imagining and remembering); and intellectual knowledge, both direct (affirming, reasoning) and indirect or reflexive (awareness of affirming or of reasoning).

Acquisition of Knowledge. How do we acquire such knowledge? Philosophers do not agree on an answer (*see* KNOWLEDGE, THEORIES OF). Here we consider only the Thomistic explanation of the origin of knowledge, first discussing this as a simple approximation to the thought of St. THOMAS AQUINAS, then correcting and deepening the explanation in the light of recent scholarship and a more penetrating study of Aquinas's doctrine.

Sense Knowledge and Abstraction. According to some exponents of THOMISM, all human knowledge comes entirely from the SENSES. Through the senses, especially those of seeing and of hearing, man knows many material objects. For example, I have seen countless trees in my life. They have provided me with sensations—green, hard; with perceptions—this maple tree, that oak; and with the IDEA of tree—a woody perennial with a single trunk—that is universal and applies to all trees, here and everywhere, present, past, and future, real and possible. How does one pass from many concrete, individual trees, all different, to a single and universal idea of tree? Through the process of ABSTRACTION, which may be explained as follows: The countless trees we know have some characteristics in common, whereas other characteristics belong only to one tree, or to a few trees. We drop the latter characteristics, keeping only those that are found in every tree. This seems to imply that the universal idea of tree is present in every perception of a tree, but hidden under many characteristics that do not strictly belong to it. We remove these accidental characteristics; we extract or abstract from the individual image or perception the underlying universal idea.

As a rough approximation, this interpretation is correct, but it can easily be taken in an empirical way, implying that man's INTELLIGENCE is merely passive in the formation of ideas. Such an empiricism logically leads to materialism, for if the intelligence receives its ideas passively from the material objects of sense experience, it must be a material power. How can material objects act upon an immaterial faculty? If the reply is that human intelligence is not merely passive, since it actively abstracts the universal idea from the senses or from the phantasm, that reply raises another difficulty. If to abstract means to make a choice between common features that will be kept in the universal idea and accidental features that will be dropped, this supposes that the intellect knows all the features among which it must choose. This idea implies that man's intellect knows the singular, material individual; that it is directly affected by the concrete, material aspects of reality. This is not the teaching of Aquinas.

Activity of Intellect. A closer study of St. Thomas's thought reveals his position to be as follows: The human INTELLECT is not a purely passive faculty in the formation of ideas, but contributes something of its own. With everything it comes to know, man's intelligence affirms that it is something, a being. A fuller description of that being comes from the senses. Thus it follows that man does not attain the universal idea gradually and inductively, as described above. The first contact of intelligence with a material object produces at once a universal idea. This might be simply the idea of ''something big and green.'' Such a concept is actually a composite of intellectual and sense data. It is a universal idea, for it applies to an indefinite number of possible objects, yet it can be particularized by a pointing finger that says, in effect: ''Something big and green, over there.'' We see, therefore, that abstraction does not involve the extraction of a thing's hidden ESSENCE from its many accidental features, but rather the fact of referring a unity supplied by the intellect to a multiplicity offered by the senses.

Types of Knowledge. Man's knowledge involves both sensation and intellect, and these two elements always go together. Man never has a sensation without a corresponding idea; he never has an idea without a sensation or image that is the residue of former sensations.

SENSATION gives man knowledge of concrete aspects or qualities of individual, material objects, e.g., colors, sounds, and odors. When such qualities are organized so as to constitute a unity in space and time, the result is a PERCEPTION. For instance, I perceive this house, that man. Such perceptions are stored away in the IMAGINA-

TION and the memory. Thus, even when I do not see the house before my eyes, I may have a distinct individual representation of it—an image that I may recognize as referring to a real house previously perceived—known as a memory image.

When I perceive, imagine, or remember a tree, I can also say: ''That is a tree.'' This statement itself represents intellectual knowledge. It implies that I have a CONCEPT of tree; even though I refer at present to this individual oak, my perception applies equally to innumerable other trees, and thus is universal (*see* UNIVERSALS). Also, when I state: ''This is a tree,'' I affirm something. I perform an act of JUDGMENT, the central act of human knowledge affirming (or denying) something of something else; this reflects my contact with extramental reality, for it states that an objective state of affairs corresponds to my subjective representation.

Immateriality. The previous section described lower to higher types of knowledge. It is also useful to start by considering knowledge first as it occurs in God. For a Thomist, God not only possesses knowledge; He *is* knowledge. In other words, God is consciousness; He is supreme and fully luminous self-awareness, and since God is also infinite and pure BEING, it follows that being in its fullness is consciousness, self-awareness, and knowledge. Looking at knowledge from this viewpoint, we no longer ask: How is it possible that some beings know? Instead we ask: How is it possible that some beings do not know? Since God, who is infinite being, is also infinite knowledge, being and knowledge seem to go together, and this is so. The degree of knowledge a being possesses corresponds to the degree of being with which it is endowed. The more it is being, the more and the better it knows. Conversely, whatever limits the being of things limits also their power of knowing, but being is limited by POTENCY, especially the potency known as MATTER. Thus, the more a being is material, the weaker is its power of knowing. The basis of all knowledge is therefore IMMATERIALITY.

This may be further explained as follows. By and of itself being is self-luminous and conscious. When more and more limited by matter, it gradually loses this self-luminosity. Because animals are more material than men, their knowledge is inferior to human knowledge, while plants, being even more material than animals, possess no knowledge, although even they have some activities that are akin to knowing, such as their ability to collect from the soil and air exactly what they need for life and growth, building the specialized tissues needed for their vital activities.

Form in Knowledge. In the act of knowledge, two features require explanation: immanence and objectivity. Immanence obtains when the object as known exists in some way in the mind of the knowing subject. Objectivity is the feature of knowledge by which the object is recognized as existing outside the knowing subject and as distinct from it.

Immanence. Thomists explain the immanence of knowledge as follows: Every material object possesses many forms—usually one substantial form and a multiplicity of acccidental forms. The substantial FORM makes the object be what it is, whereas the accidental forms make it be such and such a thing of this kind. Thus, a young black cat is a cat because of its substantial form, and it is young and black because of its accidental forms of age and color. In the process of cognition, these forms, while existing physically or ontologically in the extramental object, enter the knowing subject and become, intentionally, his own forms. They do not become the forms of that subject physically, since this would make the subject become ontologically whatever he knows—e.g., a man would thus become a young black cat—but the forms become intentionally his, and he becomes intentionally whatever he knows.

This phenomenon is referred to as the intentional presence of the object in the knowing subject. Intentional is here not opposed to real, but rather to physical. While forms are really present in the knowing subject, they are in that subject not as the subject is in its natural reality, but they inform it as it is actually in the act of knowing. Intentional existence is the existence of something in a knowing power precisely as such. St. Thomas explains that this presence differs from the presence of an accident in the substance that underlies it, and from the presence of the substantial form in primary matter. Both the union of substance and accident and that of form and matter result in a third reality differing from its two components. The intentional union, however, is more intimate. Through it the faculty becomes the other, as other, while still remaining itself; through it the subject knows the other as other. The forms that come to be intentionally present in knowing faculties are known as intentional species (*see* SPECIES, INTENTIONAL; INTENTIONALITY).

Objectivity. The problem of OBJECTIVITY has attracted less attention than immanence in traditional Thomism. The intentional species explains how the knower becomes in some way what he knows. Yet, since the forms thus become his own forms, it seems that he should know them as his own; what requires explanation is how, through them, he can know the other as other, i.e., as nonsubject, as object.

It is not enough to say that the subject is aware that these forms come from objects outside, for this begs the question. He knows that they come from objects outside

only because he knows such objects as ''not himself''; how then does he know them as ''not himself''? Again, it is not enough to appeal to the physical CAUSALITY of the object upon the knowing power. Such causality is undeniable, at least on the sense level, but it does not fall directly under conscious awareness.

To answer the question, one must distinguish the objectivity of the sense powers from that of the intellect. It seems evident, from their behavior, that animals are aware of objects, i.e., of things as distinct from themselves, yet they do not seem to know objects as objects; they are not aware of things in their environment as distinct in being from themselves. Several reasons lead to this conclusion. First, to know things as different entities from themselves, animals must know being as such; but the senses do not attain being formally as being, but in a material way. Next, to know objects as objects and nonsubjects, animals must be aware of themselves as subjects; but to know oneself as a subject supposes reflection, which is proper to spiritual faculties. Finally, if animals knew objects as such, they would designate them, refer to them, give them names; they would talk and use language.

Animal vs. Human Objectivity. How then do animals know that things are distinct from themselves? It seems that they know objects only as spatially distinct from their own bodies. Kant's explanation of this kind of objectivity is that space is the a priori form of external sensation. While maintaining, against him, that real space exists outside knowing subjects, we can agree that space as man knows and sees it—the dimensions in which material objects are contained—is an a priori form. Animals, too, must have such an a priori intuition of space. By that intuition an animal notices that objects occupy positions that are not its own position, and thus knows them as spatially distinct from itself. Man has great difficulty in understanding such mere spatial objectivity because, although he too perceives it in sense perception, for him it is always backed by an ontological distinction that is discerned by his intellect.

How this ontological distinction can be known has been explained by Joseph MARÉCHAL, who accounts for the objectivity of human knowledge by the dynamism of the intellect. Knowledge does not simply happen to man's intellect. The intellect wants to know; it has an appetite for the forms of objects and strives toward cognition of these forms; but the term of its striving is known as other, distinguished from the striving subject, and thus is objectified. Objects are known as such, as ontologically distinct from man, because their forms fulfill the intellect's natural appetite for being and intelligibility.

Knowledge of Knowing. Man not only knows objects, he also knows that he knows them. He is aware of being aware, conscious that he is conscious. This fact, important in that many thinkers insist upon it as the note that distinguishes man from animals, is undeniable. He who attempts to deny it, affirms it in his very denial; for how can he know that he does not know, except that, in examining his own knowledge—and thus knowing it—he does not discover in it any self-knowledge?

Knowledge of knowing is a special kind of knowledge. It is intuitive; that is, it uses no intermediary concepts (*see* INTUITION). Man knows the universal nature of tree or of justice only in, and through, the concept of tree or of justice. On the other hand, when he is aware that he knows, he does so directly and immediately, without a *species expressa* or a concept. The fact that man possesses such complete self-reflection constitutes the best proof of the immateriality of the human intellect, and also of the immateriality of the human soul (*see* REFLECTION; SOUL, HUMAN, IMMORTALITY OF).

See Also: KNOWLEDGE; EPISTEMOLOGY.

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[J. F. DONCEEL]

KNOWLEDGE, SOCIOLOGY OF

The study of the relation between products of the mind and existential conditions. The basic assumption of the study is that the development of thought is not independent of the concrete situation in which it takes place. This connection being assumed, the sociology of knowledge aims at defining its nature, whether in general terms or with reference to specific events. The field, therefore, embraces both a theory and a method of investigation; in either case, it differs from disciplines such as EPISTEMOLOGY and ETHICS that focus their attention on the internal coherence, logical antecedents, and final value of a given system. The sociological approach shifts the focus from the intrinsic validity to the external origin and consequences of knowledge, from the objective content of a proposition to the subjective dispositions of its proponents. The distinction between the two approaches is certainly not easy; not seldom one finds sociologists moving from premises and reaching conclusions that are proper to the philosophy of knowledge (*see* KNOWLEDGE, THEORIES OF).

Sometimes studies in this field give the term knowledge so broad a meaning as to make it virtually equiva-