

Idea

INTRODUCTION

As the topical analysis or outline in each chapter indicates, the great ideas are not simple objects of thought. Each of the great ideas seems to have a complex interior structure—an order of parts involving related meanings and diverse positions which, when they are opposed to one another, determine the basic issues in that area of thought.

The great ideas are also the conceptions by which we think about things. They are the terms in which we state fundamental problems; they are the notions we employ in defining issues and discussing them. They represent the principal content of our thought. They are *what we think* as well as what we think *about*.

If, in addition to its objects and content, we wish to think about thought itself—its acts or processes—we shall find in the tradition of the great books a number of related terms which indicate the scope of such inquiry. Some of them are: idea, judgment, understanding, and reasoning; perception, memory, and imagination; sense and mind. Here we are concerned with one of these—the idea IDEA. It is probably the most elementary of all these related terms, for according to different conceptions of the nature and origin of ideas, the analysis of thought and knowledge will vary. Different positions will be taken concerning the faculties by which men know, the acts and processes of thinking, and the limits of human understanding.

DOES THE WORD "idea," when it is used in the technical discourse of metaphysics or psychology, signify that which is known or understood? Does it signify, not the object of thought, but the thought itself? Or both? Certainly in popular speech the word is used

both ways, for men speak of understanding an idea and note differences in their understanding of the same idea; and they also say that they have different ideas about the same thing, meaning that they understand the same thing differently.

The word "idea" has many other oppositions of meaning in its tremendous range of ambiguity. It is sometimes used exclusively for the eternal types in the divine mind or the intelligible forms that exist apart from material things which are their copies; sometimes for concepts in the human mind, abstracted from sense-experience; sometimes for the seeds of understanding which belong innately to the intellect and so do not need to be derived from sense. Sometimes "idea" means a sensation or a perception as well as an abstract thought, and then its connotation extends to almost every type of mental content; sometimes it is denied that there are any abstract or general ideas; and sometimes "idea" has the extremely restricted meaning of an image which is the memory of a sense impression.

Kant vigorously protests against what he thinks is a needless abuse of the term *idea*. "I beg those who really have philosophy at heart," he writes, "to exert themselves to preserve to the expression *idea* its original signification." There is, he insists, "no want of words to denominate adequately every mode of representation without encroaching upon terms which are proper to others."

Kant proposes a "graduated list" of such terms. He begins with *perception*, which he divides into *sensation* and *cognition*, according as it is subjective or objective. A cognition, he then goes on, "is either an *intuition* or a *conception*," according as it has either an im-

mediate or a mediate relation to its object. Dividing conceptions into the *empirical* and the *pure*, Kant finally reaches the term *idea* as one subdivision of pure conceptions. If the pure conception "has its origin in the understanding alone, and is not the conception of a pure sensuous image," it is a *notio* or notion; and "a conception formed from notions, which transcends the possibility of experience, is an *idea*, or a conception of reason."

According to Kant, anyone "who has accustomed himself to these distinctions," will find it "quite intolerable to hear the representation of the color red called an idea." Tolerable or intolerable, the word "idea" has been used quite persistently with the very meaning that Kant abominates, as well as with a variety of others. The reader of the great books must be prepared for all these shifts in meaning and, with them, shifts in doctrine; for according to these differences in meaning, there are different analyses of the nature or being of ideas, different accounts of their origin or their coming to be in the human mind, and different classifications of ideas. These three questions—what ideas are, how ideas are obtained, and of what sorts they are—are so connected that the answer given to one of them tends to circumscribe the answers which can be given to the other two.

THE UNITY OF EACH chapter in this guide to the great books depends on some continuity of meaning in its central term, some common thread of meaning, however thin or tenuous, which unites and makes intelligible the discussions of various authors about the same thing. Without this, they would not move in the same universe of discourse at all. Nor could they even disagree with one another, if the words they used were utterly equivocal, as for example the word "pen" is equivocal when it designates a writing instrument and an enclosure for pigs.

The extraordinary ambiguity of the word "idea" as it is used in the great books puts this principle to the test. Are Plato and Hume talking about the same thing *at all*, when the one discusses ideas as the only intelligible reality and the other treats ideas as the images derived

through memory from the original impressions of sense-experience? Is there any common ground between Aristotle and Berkeley—between the identification of human ideas with abstract or general conceptions, quite distinct from the perceptions or images of sense, and the identification of ideas with particular perceptions, accompanied by a denial of abstract or general notions?

Do writers like Locke or William James, for whom ideas of sensation and abstract ideas (or percepts and concepts) belong to the one faculty of understanding or to the single stream of consciousness, communicate with writers like Plotinus, Descartes, and Spinoza, for whom ideas belong to the intellect or to the thinking being, separate from matter and from sensations which are only bodily reactions? Or with writers like Aristotle and Aquinas, for whom there is a sharp distinction between the faculties of sense and intellect? Can Aristotle and Aquinas in turn explain the origin of concepts or intelligible species by reference to the intellect's power of abstracting them from experience or sensible species, and still carry on discussion with Plato, Augustine, and Descartes, who regard the intellect as in some way innately endowed with ideas, with the principles or seeds of understanding? Which of these have anything in common with Poincaré, Whitehead, and G. H. Hardy when they talk about mathematical ideas? Hardy, for example, writes: "A mathematician . . . has no material to work with but ideas, and so his patterns are likely to last longer, since ideas wear less with time than words."

The foregoing is by no means an exhaustive inventory. It fails, for example, to ask about the sense in which the theologians speak of ideas in the mind of God and of the illumination of the angelic or the human intellect by ideas divinely infused. (What is the common thread of meaning between such discourse and that concerned with the formation of abstract concepts or with the revival of sense impressions in images?) It fails also to question the meaning of *idea* in Kant's tripartite analysis of the faculties of intuition, judgment, and reasoning; or in Hegel's ultimate synthesis of all nature and history in the dialectical life of

the Absolute Idea. (What do these meanings of "idea" have in common with the sense in which Freud distinguishes between conscious and unconscious ideas?)

The inventory is also incomplete in that it does not indicate the many divergent routes taken by authors who seem to share a common starting point. Even those who, on certain points, seem to talk the same language, appear to have no basis for communication on other points in the theory of ideas. But the questions which have been asked suffice for the purpose at hand. However great the ambiguity of "idea," it does not reach that limit of equivocation which would destroy the universe of discourse. There is a slender thread of meaning which ties all the elements of the tradition together—not in a unity of truth or agreement, but in an intelligible joining of issues.

This unity can be seen in two ways. It appears first in the fact that any consideration of ideas—whether as objects or contents of the mind—involves a theory of knowledge. This much is common to all meanings of "idea."

Those, like Plato and Berkeley, for whom ideas constitute a realm of intelligible or sensible being, make knowledge of reality consist in the apprehension or understanding of ideas. Those, like Aristotle and James, for whom ideas have no being except as perceptions or thoughts, make them the instruments whereby reality is known. On either view, knowledge involves a relationship between a knower and a known, or between a knowing faculty and a knowable entity; but on one view ideas are the reality which is known, and on the other they are the representations by which is known a reality that does not include ideas among its constituents. These two views do not exhaust the possibilities.

Ideas are sometimes regarded both as objects of knowledge and as representations of reality. Some writers (as, for example, Plato) distinguish two orders of reality—the sensible and the intelligible—and two modes of apprehension—sensing and understanding; and they use the word "idea" for both the intelligible object and the understanding of it. Locke, begging the reader's pardon for his frequent use of the word "idea," says that it is the term

"which serves best to stand for whatsoever is the object of the understanding when a man thinks." But Locke also distinguishes between knowledge of real existences through ideas "that the mind has of things as they are in themselves," and knowledge of the relations among our own ideas, which the mind "gets from their comparison with one another." For Hume, too, ideas as well as impressions are involved in our knowledge of matters of fact, but relations between ideas may also be objects of knowledge, as in "the sciences of geometry, algebra, and arithmetic."

This double use of "idea" is sometimes accompanied, as in Aquinas, by an explicit acknowledgment and ordering of the two senses. For Aquinas, concepts are primarily the means of knowledge, not the objects of knowledge. A concept, Aquinas writes, "is not *what* is actually understood, but *that by which* the intellect understands"—that by which something else is known. Secondarily, however, concepts become *that which* we know when we reflexively turn our attention to the contents of our own mind. Using the phrase "intelligible species" to signify concepts, Aquinas explains that "since the intellect reflects upon itself, by such reflection it understands not only its own act of intelligence but also the species by which it understands. Thus the intelligible species is that which is understood secondarily; but that which is primarily understood is the object, of which the species is the likeness."

It is possible, therefore, to have ideas about things or ideas about ideas. In the vocabulary of this analysis by Aquinas, the ideas or concepts whereby real things are understood are sometimes called the "first intentions" of the mind. The ideas whereby we understand these ideas or first intentions are called the mind's "second intentions." An idea is always a mental intention, an awareness or representation, never an independent reality for the mind to know.

Locke's differentiation between ideas of sensation and ideas of reflection seems to parallel the medieval distinction between first and second intentions; but whereas second intentions are ideas engaged in a reflexive under-

standing of ideas as objects to be understood, Locke's ideas of reflection comprise "the perception of the operations of our own mind within us, as it is employed about the ideas it has got." A closer parallel, perhaps, is to be found in Locke's distinction between our knowledge of reality or of real existences and our knowledge of the relations existing between our own ideas.

THE SECOND WAY of seeing a connection among meanings of "idea" depends on recognizing what is common to contrary views.

The word "pen" is utterly equivocal, as we have noted, when it names a writing instrument and an animal enclosure. Hence men cannot contradict one another no matter what opposite things they may say about *pens* in one sense and *pens* in the other. The two meanings of "pen" are not even connected by being opposed to one another. But all the meanings of "idea" do seem to be connected by opposition at least, so that writers who use the word in its different senses and have different theories of idea cannot avoid facing the issues raised by their conflicting analyses.

The root of this opposition lies in the positive and negative views of the relation of ideas to sensations—or, more generally, to sense and the sensible. Though there are different analyses of sensation, one or both of two points seems to be agreed upon: that sensations are particular perceptions and that sensations result from the impingement of physical stimuli upon the sense organs of a living body.

Berkeley insists upon the first point while emphatically denying the second. Ideas or sensations are always particulars; but, he says, "the various sensations or ideas imprinted on the sense, however blended or combined together (that is, whatever objects they compose), cannot exist otherwise than in a mind perceiving them," and their cause is neither physical matter nor the perceiving mind, but "some other will or spirit that produces them." Others, like Lucretius and Hobbes, who regard sensations as particular perceptions, do not use the word "idea," as Berkeley does, for perceptions of external origin, but restrict it to

inner productions of the mind itself in its acts of memory or imagination.

The various theories of idea thus range from those which identify an idea with a sensation or perception or with the derivatives of sensation, to those which deny the identity or even any relationship between ideas and sensations or images of sense.

THE FIRST POSITION is taken by writers who conceive mind or understanding, in men or animals, as the only faculty of knowledge. It performs all the functions of knowing and thinking. It is sensitive as well as reflective. It perceives and remembers as well as imagines and reasons.

Within this group of writers there are differences. Berkeley, for example, thinks "the objects of human knowledge" include "either ideas actually imprinted on the senses; or else such as are perceived by attending to the passions and operations of the mind; or lastly ideas formed by the help of memory and imagination—either compounding, dividing, or barely representing those originally perceived in the aforesaid ways." Hume, on the other hand, divides "all the perceptions of the mind into two classes or species, which are distinguished by their different degrees of force or vivacity. The less forcible and lively are commonly denominated *Thoughts* or *Ideas*. The other species want a name in our language and in most others . . . Let us, therefore, use a little freedom and call them *Impressions*." By this term, Hume explains, "I mean all our more lively perceptions, when we hear, or see, or feel, or love, or hate, or desire, or will."

Another use of terms is represented by Locke, who distinguishes between ideas of sensation and reflection, simple and complex ideas, particular and general ideas, and uses the word "idea" both for the original elements of sense-experience and for all the derivatives produced by the mind's activity in reworking these given materials, whether by acts of memory, imaginative construction, or abstraction. Still another variation is to be found in James. Despite the authority of Locke, he thinks that the word "idea" has not domesticated itself in the language so as to cover bodily sensations."

Accordingly, he restricts the word "idea" to concepts, and never uses it for sensations or perceptions. Nevertheless, like Locke, he does not think that the development of concept from percept needs the activity of a special faculty. Both concept and percept belong to the single "stream of thought" and are "states of consciousness."

THE SECOND POSITION is taken by writers who in one way or another distinguish between sense and intellect and regard them as quite separate faculties of knowing. The one is supposed to perform the functions of perception, imagination, and memory; the other, the functions of thought—conception, judgment, and reasoning, or if not these, then acts of intellectual vision or intuition. Here, too, there are differences within the group.

Just as the extreme version of the first position is taken by those who identify ideas with perceptions, so here the opposite extreme consists in the denial of any connection between ideas and all the elements of sense-experience. The ideas in the divine mind, or the ideas infused by God into the angelic intellects, have no origin in experience, nor any need for the perceptions, memories, or images of sense. They are not abstract ideas, that is, they are not concepts abstracted from sense-materials.

"Our intellect," Aquinas writes, "abstracts the intelligible species from the individuating principles"—the material conditions of sense and imagination. "But the intelligible species in the divine intellect," he continues, "is immaterial, not by abstraction, but of itself." The divine ideas, Aquinas quotes Augustine as saying, "are certain original forms or permanent and immutable models of things which are contained in the divine intelligence." Following Augustine's statement that "each thing was created by God according to the idea proper to it," Aquinas restricts the word "idea" to the "exemplars existing in the divine mind" and to the species of things with which God informs the angelic intellects. He uses the word "concept" where others speak of "ideas" in the human mind.

Descartes, on the other hand, endows the human mind with ideas—not concepts ab-

stracted from and dependent on sense, but intuitive apprehensions which, since they cannot be drawn in any way from sense-experience, must be an innate property of the human mind. He does not, however, always use the word "idea" in this strict sense. Some ideas, he says, "appear to be innate, some adventitious, and others to be formed or invented by myself." The ideas called "adventitious" are those which seem to come from the outside, as when "I hear some sound, or see the sun, or feel heat." Those which we form or invent ourselves are "constructions of the imagination." Only innate ideas, in Descartes's view, are truly ideas in the sense of being the elements of certain knowledge and the sources of intellectual intuition. "By intuition," he says, "I understand, not the fluctuating testimony of the senses, nor the misleading judgment that proceeds from the blundering constructions of the imagination," but "the undoubting conception of an unclouded and attentive mind" which "springs from the light of reason alone."

As mind and body are separate substances for Descartes—mind being conceived by him as a *res cogitans* or thinking substance, quite separate from a *res extensa* or the extended matter of a bodily substance—so ideas and sensations are independent in origin and function. Like infused ideas in the angelic intellect, innate ideas in the human mind are not abstract, for they are not abstracted. But unlike the angelic intellect, the human mind, even when it employs innate ideas, is discursive or cogitative. It is never conceived as entirely free from the activities of judgment and reasoning, even when its power is also supposed to be intuitive—that is, able to apprehend intelligible objects without analysis or without recourse to the representations of sense.

The doctrine of innate ideas does not always go as far as this in separating intellectual knowledge—or knowledge by means of ideas—from sense-experience. In the theories of Plato and Augustine, for example, sense-experience serves to awaken the understanding to apprehend the intelligible objects for the intuition of which it is innately equipped.

Learning those things "which do not reach our minds as images by means of the senses

but are recognized by us in our minds, without images," is, according to Augustine, "simply a process of thought by which we gather together things which, although they are muddled and confused, are already contained in the memory." Moreover, the memory contains not only "images imprinted on the memory by the senses of the body, but also the ideas of the emotions themselves," which are not received "through any of the body's gateways to the mind."

This process of learning by remembering appears to be similar to the process which Plato also calls "recollection" or "reminiscence." In the *Meno* Socrates demonstrates that a slave boy, who thinks he knows no geometry, can be led simply by questioning to discover that he knew all the while the solution of a geometric problem. "There have always been true thoughts in him," Socrates tells Meno, thoughts "which only needed to be awakened into knowledge by putting questions to him." Hence "his soul must always have possessed this knowledge." Learning, according to this doctrine of innate ideas, must therefore be described as an attempt "to recollect," not "what you do not know," but "rather what you do not remember."

Learning by recollection or reminiscence seems to be a process in which latent ideas (whether they are retained by the soul from a previous life or are part of the soul's endowment at its creation) become active either through the questioning of a teacher or through being awakened by the perceptions of the bodily senses. Though such bodily stimulation of thought implies a functional connection between body and soul, nevertheless both Plato and Augustine hold that ideas are independent in origin. They are not derived from sense, though their appearance may be occasioned by events in the world of sense.

ONE OTHER VIEW still remains to be considered. It denies that ideas are innate in the human mind at the same time that it distinguishes between the intellect and the senses as separate faculties of knowing. Having to explain whence the intellect gets its ideas, writers like Aristotle and Aquinas attribute to the hu-

man intellect an abstractive power by which it draws "the intelligible species" from sensory images, which Aquinas calls "phantasms."

The concepts by which "our intellect understands material things," we obtain "by abstracting the form from the individual matter which is represented by the phantasms." Through the universal concept thus abstracted, we are able, Aquinas holds, "to consider the nature of the species apart from its individual principles." It should be added here that abstractions are not vehicles of intuitive apprehension. Conception, which is the first act of the mind, yields knowledge only when concepts are used in subsequent acts of judgment and reasoning.

Abstract or universal concepts are as different from the ideas which belong to intellects separate from bodies—the divine or angelic intellects—as they are different from the particular perceptions or images of sense. They occupy an intermediate position between the two, just as, according to Aquinas, "the human intellect holds a middle place" between angelic intelligence and corporeal sense. On the one hand, the human intellect is for Aquinas an incorporeal power; on the other hand, it functions only in cooperation with the corporeal powers of sense and imagination. So the concepts which the human intellect forms, being universal, are immaterial; but they are also dependent, in origin and function, on the materials of sense. Not only are universal concepts abstracted from the phantasms, but for the intellect to understand physical things, "it must of necessity," Aquinas writes, "turn to the phantasms in order to perceive the universal nature existing in the individual."

This theory of abstract ideas seems not far removed from the position of Locke, who distinguishes between particular and general ideas (which he calls "abstract") or that of James, who distinguishes between universal concepts and sense perceptions. Yet on one question the difference between them is radical, namely, whether particular sensations and universal ideas belong to the same faculty of mind or to the quite distinct faculties of sense and intellect.

This difference seems to have considerable

bearing on the way in which these writers explain the process of abstraction or generalization, with consequences for certain subtleties, acknowledged or ignored, in the analysis of the grades of abstraction. Nevertheless, the resemblance between the positions of Locke and Aquinas, or those of James and Aristotle, each affirming in his own way that the mind contains nothing not rooted in the senses, serves to mediate between the more extreme positions.

THE DISPUTE ABOUT innate ideas and the controversy over abstract ideas are issues in psychology inseparable from fundamental differences concerning the nature and operation of the faculty *or* faculties of knowing. There are other issues which concern the being or the truth of ideas. Here the first question is not whether ideas are objects of knowledge, but whether the existence of ideas is real or mental—outside the mind or in it.

One aspect of this controversy is considered in the chapter on FORM, *viz.*, the argument between Aristotle and Plato about the being of the Ideas or Forms apart from both matter and mind. It is in the context of this argument that the traditional epithet "realism" gets one of its meanings, when it signifies the view that ideas or universals have an independent reality of their own. The various opponents of this view are not called "idealists." If they deny any existence to universal ideas outside the mind, they are usually called "conceptualists"; if they deny the presence of universals even in the mind, they are called "nominalists." These doctrines are more fully discussed in the chapters on SAME AND OTHER, UNIVERSAL AND PARTICULAR.

The controversy about the being of ideas has another phase that has already been noted in this chapter; and it is in this connection that the epithet "idealism" gets one of its traditional meanings. The doctrine is not that ideas have real existence outside the mind. On the contrary, it is that the only realities are mental—either minds or the ideas in them.

Berkeley's famous proposition—*esse est percipi*, to be is to be perceived—seems intended to permit only one exception. The perceiving

mind has being without being perceived, but nothing else has. Everything else which exists is an idea, a being of and in the mind. According to this doctrine (which takes different forms in Berkeley and in Hegel, for example) the phrase "idea of" is meaningless. Nothing exists of which an idea can be a representation. There is no meaning to the distinction between thing and idea. The real and the ideal are identical.

Plato is sometimes called an "idealist" but not in this sense. He has never been interpreted as completely denying reality to the changing material things which imitate or copy the eternal ideas, the immutable archetypes or Forms. Applied to Plato or to Plotinus, "idealism" seems to signify the superior reality of ideal (as opposed to material or physical) existence. Just as "idealism" has these widely divergent meanings, so does "realism" when it designates, on the one hand, those who attribute independent reality to ideas and, on the other hand, those who affirm the existence of an order of real existences independent of the ideas which represent them in the mind.

Writers who distinguish between things and ideas, or between the order of reality and the mind's conception of it, face the problem of differentiating between these two modes of being. To say that ideas or concepts exist only in the mind is not to say that they do not exist at all, but only that they do not exist in the same way as things outside the mind.

Does an entity in its real existence apart from knowledge have the same character that it has when, as an object known, it somehow belongs to the knowing mind? Is there a kind of neutral essence which can assume both modes of existence—real existence, independent of mind, and ideal existence, or existence in the mind, as an object conceived or known? Is an idea or concept in the mind nothing but the real thing objectified, or transformed into an object of knowledge; or is the real thing, the thing in itself, utterly different from the objects of experience or knowledge—neither knowable nor capable of representation by concepts?

These questions, relevant to the consideration of ideas as representations of reality, are of course, also relevant to problems consid-

ered in the chapters on BEING, EXPERIENCE, and KNOWLEDGE. The issues indicated are there discussed.

Intimately connected with them are questions about the truth of ideas. Can ideas or concepts be true or false in the sense in which truth and falsity are attributed to propositions or judgments? Under what conditions is an idea true? In what does its truth consist, and what are the signs or marks of its truth? These matters are discussed in the chapter on TRUTH. Here it is sufficient to point out that the traditional distinction between adequate and inadequate ideas, and the comparison of clear and distinct with obscure and confused ideas, are used to determine the criteria of truth. It may be the truth of a concept taken by itself or of the judgment into which several concepts enter. To the extent that ideas are regarded as representative, their truth (or the truth of the judgments they form) seems to consist in some mode of agreement or correspondence with the reality they represent, or, as Spinoza says, its *ideatum*.

Within the conceptual or mental order itself, there is a further distinction between ideas which do not perform a representative function and those which do. The former are treated as fantasies, fictions, or chimeras; the latter are called, by contrast, "real ideas," or ideas having some reference to reality. The question of the reality of ideas takes precedence over the question of their truth, at least for those who regard the division into true and false as applicable only to representations. Yet the criteria of the distinction between the real and the imaginary are difficult to separate from the criteria of true and false. The separation is made most readily by those who use "idea" to mean memory image. They can test the reality of an idea by tracing it back to the impression from which it originated.

Another sort of test is applied by those who measure the reality of abstract ideas by their fidelity to the sense perceptions from which they were abstracted. Still another criterion, proposed by James, is that of freedom from contradiction. An idea has truth and its object has reality if it "remains uncontradicted." The idea of a winged horse illustrates the point.

"If I merely dream of a horse with wings," James writes, "my horse interferes with nothing else and has not to be contradicted . . . But if with this horse I make an inroad into the world otherwise known, and say, for example, 'That is my old mare Maggie, having grown a pair of wings where she stands in her stall,' the whole case is altered; for now the horse and place are identified with a horse and place otherwise known, and what is known of the latter objects is incompatible with what is perceived with the former."

THE CONSIDERATION of ideas or concepts belongs to logic as well as to psychology and metaphysics. The logician sometimes deals with concepts directly and with the judgments into which they enter; sometimes he deals with them only as they find verbal expression in terms and propositions.

The distinction between concepts and judgments (or between terms and propositions) is discussed in the chapter on JUDGMENT. There also we see that the classification of judgments or propositions depends in part on the acceptance or rejection of the notions of subject and predicate in the analysis of concepts or terms; and, if they are accepted, on the way in which terms are distinguished both as subjects and as predicates.

This in turn depends upon certain traditional divisions which are applicable to terms, if not always to concepts, such as the familiar distinctions between concrete and abstract, and particular and universal, terms. When the concept, which is sometimes called the "mental word," is regarded as by its very nature abstract and universal, these distinctions are applicable only to the physical words which are terms. Concrete and particular terms are then treated as verbal expressions of sense perceptions or images; abstract and universal terms, as verbal expressions of ideas or concepts. But when ideas are identified with sense perceptions or images, and abstract concepts are denied, the existence of general names in ordinary discourse suffices for the distinction between particular and universal terms, even though the latter do not express any actual content of the mind.

Unlike the foregoing, other divisions of terms, as, for example, the distinction between the univocal and the analogical, or between species and genera, do not occur throughout the tradition of logic. They tend to be characteristic of the logic of Aristotle and its medieval development. Of these two distinctions, that between univocal and analogical terms or concepts appears explicitly, so far as this set of great books is concerned, only in the *Summa Theologica*. Nevertheless, Aquinas does have some background for his special theory of analogical terms in Aristotle's treatment of univocal and equivocal names, and in his separation of terms which predicate a sameness in species or genus from those which predicate a sameness by analogy. The analysis of these distinctions is undertaken in the chapters on SAME AND OTHER and SIGN AND SYMBOL.

Other writers, in dealing with universal terms, recognize that they have different degrees of generality. They sometimes formulate this as an order of more and less inclusive classes. Sometimes they refer to the intension and extension, or connotation and denotation, of terms. The more general terms have a less restricted connotation and hence represent more extensive or inclusive classes. The more specific terms have a more determinate meaning and so also have a narrower denotation and represent less inclusive classes. What seems to be peculiar to Aristotle's analysis of species and genera is the setting of upper and lower limits to the hierarchy of universal terms, with a small number of irreducible categories (or *summa genera*) under which all species fall, and, at the other extreme, with a finite number

of lowest (or *infirmæ*) species which are incapable of subsuming other species.

The terms which fall under the lowest species must either be particulars or accidental classes. Those which seem to be predicable of the categories themselves, such as *being* or *one*, cannot be genera. These are the terms which Aristotle's medieval followers call "transcendental" and "analogical." Using the word "transcendental" in a different sense, Kant enumerates a set of concepts which bear some resemblance to Aristotle's *summa genera*, but which he treats as transcendental categories.

The difference among concepts with respect to generality is of interest to the psychologist as well as the logician, for it raises the problem of whether the more or the less general takes precedence in the order of learning. The order and relation of ideas is even more the common ground of both logic and psychology. Both, for example, deal with the position and sequence of terms or concepts in reasoning, though the logician aims to *prescribe* the forms which reasoning must take in order to be valid, whereas the psychologist tries to *describe* the steps by which thinking actually goes on.

Only the logician, however, is concerned with the way in which terms are ordered to one another as positive and negative, or as contraries; just as from Aristotle to Freud, only the psychologist deals with the association of ideas in the stream of thought by relationships of contiguity and succession, similarity and difference. According as the logical connection of ideas or their psychological association is made the primary fact, radically divergent interpretations are given of the nature of mind, the life of reason, and the process of thought.