

# Sign and Symbol

## INTRODUCTION

A SIGN points to something. A symbol stands for or takes the place of another thing. Sign and symbol are sometimes differentiated according to whether emphasis is placed on that which is signified or pointed out, or on that which functions as a surrogate or substitute.

Yet "sign" and "symbol" are often used interchangeably. We call the notations of music or mathematics either "signs" or "symbols"; though mathematicians, such as Whitehead, prefer the latter usage when they discourse about "the symbolism of mathematics." Words, too, are traditionally spoken of as signs or symbols. Words and other conventional notations for expressing meaning both point to and stand for something else. It is only in certain cases that one of these two functions seems to predominate, as the road marker points out the direction to take, and paper money takes the place of the precious metal whose value it represents.

On what is common to signs and symbols of all sorts there seems to be no disagreement throughout the tradition of western thought. From Augustine's statement that "a sign is a thing which, over and above the impression it makes on the senses, causes something else to come into mind as a consequence of itself," to Freud's analysis of the symbolism of dreams, of symptoms, and symptomatic acts, the great books consider sign or symbol as one term in a relation, the relation being one of meaning or, as Freud says, of "significance, intention, tendency." The fundamental problems traditionally discussed concern the nature of meaning itself, and the modes of signification which vary with the kinds of things that function as signs and the kinds of things they signify.

WITH RESPECT TO THINGS which function symbolically, the primary distinction seems to be that between natural and conventional signs. Augustine at first suggests a threefold division. Some things are simply things, and not signs at all. Some (for example, "the ram which Abraham offered up instead of his son") are not only things, but "also signs of other things." And some things, such as words, "are never employed except as signs." Augustine adds that words are not merely signs. "Every sign," he writes, "is also a thing, for what is not a thing is nothing at all."

The distinction between natural and conventional signs falls within this threefold division. "Natural signs," Augustine says, "are those which, apart from any intention or desire of using them as signs, do yet lead to the knowledge of something else, as, for example, smoke when it indicates fire. For it is not from any intention of making it a sign that it is so, but through attention to experience we come to know that fire is beneath, even when nothing but smoke can be seen. And the footprint of an animal passing by belongs to this class of signs."

Augustine seems to find natural signs in things that are related as cause and effect. Berkeley, on the other hand, tends to substitute the relation of sign and thing signified for the relation of cause and effect. "The fire which I see," he writes, "is not the cause of the pain I suffer upon my approaching, but the mark that forewarns me. In like manner the noise that I hear is not the effect of this or that motion or collision of the ambient bodies, but the sign thereof."

Every natural thing or event thus tends to become the sign of something else, so that the

whole of nature constitutes a vast symbolism or language by which God informs us of his plan. Aristotle tends, in the opposite direction, to limit natural signs to those things which, according to our knowledge and experience, permit a necessary or probable inference to something else. The fact that a woman is giving milk he regards as an infallible sign that she has lately borne a child; the fact that a man is breathing fast is merely a probable and refutable sign that he has a fever.

In any case, signs are generally acknowledged to be natural if they satisfy Augustine's criterion that they were not intentionally devised by men for the purpose of signifying. "Conventional signs, on the other hand," he writes, "are those which living beings mutually exchange for the purpose of showing, as well as they can, the feelings of their minds, or their perceptions, or their thoughts." Of conventional signs, Augustine goes on to say, words hold the chief place, because everything which can be expressed by gestures, or by such non-verbal symbols as flags or bugle calls, can also be expressed in words, whereas many thoughts which words readily express do not lend themselves easily to other modes of expression.

Except for the hypothesis (discussed in the chapter on LANGUAGE) of a natural form of speech common to all men and consisting of words perfectly adapted to the objects they name, it is never proposed that words are anything but conventional signs. As Aristotle says, "nothing is by nature a noun or a name—it is only so when it becomes a symbol." The audible sound or the visible mark becomes a symbol only by human institution or convention.

Yet not all the audible sounds which men and other animals make to express their feelings or desires are, in Aristotle's opinion, to be regarded as words. "Inarticulate sounds, such as those which brutes produce, are significant, yet none of these constitutes a noun." Nor are such cries, whereby one animal calls another or communicates fear or anger, strictly conventional signs; for, as Augustine points out, they are instinctive modes of expression, and so are natural rather than conventional. They are not voluntarily instituted.

IN TERMS OF THE ancient distinction between the conventional and the natural—that which changes from time to time and place to place and that which is everywhere and always the same—no one would question the conventionality of words and all other nonverbal symbols which are peculiar to one people, one culture, or one epoch. That words are conventional signs raises the central problem concerning their meaning or significance. Utterly dissimilar words in different languages can have the same meaning, and identical sounds or marks in different languages can mean quite different things. Since the sounds or marks which constitute spoken and written words do not possess meaning naturally, from what source do such conventional signs get the meanings they have?

The usual answer, given by Aristotle, Locke, and others, is that words get their meanings from the ideas, thoughts, or feelings which men use them to express. "Spoken words," writes Aristotle, "are the symbols of mental experience and written words are the symbols of spoken words. Just as all men do not have the same writing, so all men do not have the same speech sounds, but the mental experiences, which these directly symbolize, are the same for all, as also are those things of which our experiences are the images."

In addition to being able to make articulate sounds, it was necessary for man, Locke says, to "be able to use these sounds as signs of internal conceptions, and to make them stand as marks for the ideas within his own mind, whereby they might be made known to others." Thus words came to be used by men "as the signs of their ideas; not by any natural connexion that there is between particular articulate sounds and certain ideas, for then there would be but one language amongst all men; but by a voluntary imposition, whereby such a word is made arbitrarily the mark of such an idea. The use then of words is to be sensible marks of ideas, and the ideas they stand for are their proper and immediate signification."

Locke goes further. Not only does the immediate signification of words lie in the ideas they stand for, but in his view words "can be signs of nothing else." Yet he also considers

the fact that men, because they "would not be thought to talk barely of their own imaginations, but of things as they really are . . . often suppose their words to stand also for the reality of things." Locke thinks, nevertheless, that "obscurity and confusion" enter into the signification of words "whenever we make them stand for anything but those ideas we have in our own minds."

But though the meaning of a word may come from the idea it signifies, the word which is thus made meaningful seems, in the common usage of mankind, to serve as the name or designation of some real thing. It refers to something other than ideas or concepts in the human mind. Locke himself talks of "the application of names to things," and in his consideration of the distinction between proper and common names is concerned to point out that, though they differ in meaning (*i.e.*, differ in the type of idea they signify), both refer to the same sort of reality—individual existences. Aristotle and other writers who distinguish between things in the order of nature and the concepts we form of them, tend to take both views of the significance of words. Words signify the real things which they name as well as the ideas whose meanings they express. If we waive for the moment the possibility that some words may signify *only* ideas, whereas others signify both ideas and things, two questions may be asked. Are there any words which signify things alone? What is the relation between the idea and the thing a word signifies, when a word signifies them both; that is, when a word has both sorts of significance, how are they related to one another?

Aquinas answers the second question by saying that since "words are the signs of ideas, and ideas the similitudes of things, it is evident that words function in the signification of things through the conceptions of the intellect." Ideas may be the immediate or proximate object which words signify, but through them words ultimately signify the real things which are themselves the objects of ideas. According to this theory, an idea may be both the *object signified* by a word and the *medium through which* that word also signifies the thing of which we have the idea. Aquinas

seems to think that ideas are always required as the medium whereby words signify things. "We can give a name to anything," he says, "only insofar as we can understand it." Accordingly, it is impossible for words to signify things directly, *i.e.*, without the mediation of ideas.

In the 20th century an opposite theory of how words get their meanings is attributed to Wittgenstein. He is again and again cited as holding that to determine the meaning of a word one must look to "its use in the language." This raises the question whether the use of a word is not itself determined by the idea that confers meaning on that word, which is the traditional view of how words get their meanings.

THE TRADITIONAL VIEW has a number of consequences for the theory of signs and raises a number of issues. Augustine's statement that "every sign is also a thing" has a different meaning when it is said of the sensible things which also happen to be signs and of the things of the mind—concepts or ideas—which cannot *be* without *being signs*. The understanding of this difference helps to explain the relation between verbal signs and the mental signs through which they signify or from which they get their meanings.

Whereas words are in the first instance meaningless marks and sounds which get meaning when men use them to express their thoughts or feelings, ideas and images are at once meaningful, however they arise in the mind. They are natural signs in the sense that it seems to be their very nature to signify. They do not get meaning. They do not even have meaning, in the way in which smoke as a natural sign of fire has a meaning which is distinct from, though a consequence of, its nature as smoke. An idea *is* a meaning, an intention of the mind, as it is sometimes called, a reference to an object thought about. The idea of fire is the meaning the word "fire" has when it designates the natural phenomenon which that word is conventionally used to name; and as Aristotle suggests, the conventional signs of different languages [*e.g.*, "fire" and "Fever"]—have the same meaning because the idea of fire

is the same, and the natural phenomenon experienced and thought about is the same, for men of diverse tongues.

That ideas or mental images are themselves meanings or intentions—the symbols of things thought about—seems to be recognized in different ways by many writers in the tradition of the great books. In the *Cratylus*, Socrates suggests that signs should be like the things they signify. Some conventional signs, he thinks, are better than others in this respect. He implies that all words are inferior to mental images, which, by their very nature, imitate or resemble their objects.

The act of memory, according to Aristotle, requires a memory image which is “something like an impression or picture” of the thing remembered. If the memory image, through its resemblance to something once experienced, did not function as the sign of that absent thing, memory would not be memory, for, Aristotle argues, it would consist in beholding the memory image itself, which is present, rather than the absent thing it stands for.

Aquinas, perhaps, is the writer most explicit in his treatment of images and ideas as in their very nature meanings or intentions of the mind. His calling them “mental words” seems to indicate that in his view they, like physical and sensible words, are signs; but the added qualification of “mental” also implies their difference. “The vocal sound which has no signification,” he writes, “cannot be called a word; wherefore the exterior vocal sound is called a word from the fact that it signifies the interior concept of the mind. It follows that, first and chiefly, the interior concept of the mind is called a word.” The mental word or concept suffices “when the mind turns to the actual consideration of what it knows habitually,” for then, he adds, “a person speaks to himself.” But unlike angels, who can make their concepts known to one another immediately, men require the medium of external speech. They must use sensible physical signs to communicate their thoughts.

Without referring to ideas as mental words, Locke does appear to identify ideas with meanings and to regard them as signs. The definition of a word, he says, is an attempt to

make known “the meaning or idea it stands for.” Denying that the general and the universal belong to the real existence of things, he holds that they “concern only signs, whether words or ideas. Words are general . . . when used for signs of general ideas . . . and ideas are general when they set up as the representatives of many particular things; but universality belongs not to things themselves, which are all of them particular in their existence, even those words and ideas which, in their signification, are general.”

The basic issue to which Locke is addressing himself is discussed in the chapter on UNIVERSAL AND PARTICULAR. Locke’s solution seems to involve the affirmation of abstract ideas, which are general or universal in their significance and through which common names come to have a different sort of meaning from the meaning of proper names. “Ideas become general by separating them from the circumstances of time and place, and any other ideas that may determine them to this or that particular existence.” Common nouns like “man” or “cat” become general in their significance, according to Locke, “by being made the signs of general ideas.” For Russell, the distinction between the significance of proper and common names is best expressed in terms of definite and indefinite descriptions, such as *the* first President of the United States (George Washington) and *a* domesticated species in the feline family (cat).

To the question of what kind of signification it is that general words have, Locke replies: “As it is evident, that they do not signify barely one particular thing; for then they would not be general terms, but proper names; so, on the other side, it is as evident, they do not signify a plurality; for man and men would then signify the same . . . That, then, which general words signify,” Locke declares, “is a sort of things, and each of them does that by being a sign of an abstract idea in the mind.”

It seems to follow, therefore, that those who, like Hobbes and Berkeley, deny the existence of abstract ideas or universal concepts, must offer a different explanation of the meaning of common nouns or general names. “There being nothing in the world universal

but names," Hobbes writes, a name is universal when it "is imposed on many things for their similitude in some quality, or other accident: and whereas a proper name bringeth to mind one thing only, universals recall any one of those many."

On similar grounds, Berkeley criticizes Locke's theory of how words acquire general significance. His own theory is that words become general "by being made the sign, not of an abstract general idea, but of several particular ideas, any one of which it indifferently suggests to the mind." And, in another place, he says that "an idea which, considered in itself, is particular becomes general by being made to represent or stand for all other particular ideas of the same sort." He does not himself explain how we come by the notion of "the same sort," or how one particular idea can represent the sort to which other particular ideas belong. But he rejects Locke's explanation because it involves ideas which are not only general, but also abstract.

The attempt to account for the meaning of general names is, in Berkeley's view, the cause of Locke's acceptance of abstract ideas. "If there had been no such thing as speech or universal signs," he writes, "there never [would have] been any thought of abstraction." Not only do men mistakenly suppose that "every name has, or ought to have, one only precise and settled signification, which inclines [them] to think there are certain abstract, determinate ideas that constitute the true and only immediate signification of each general name"; but they also suppose that "it is by the mediation of these abstract ideas that a general name comes to signify any particular thing. Whereas, in truth," Berkeley concludes, "there is no such thing as one precise and definite signification annexed to any general name." Where Locke would say that a common name gets its general meaning by signifying one idea which itself has general significance, Berkeley reiterates that a general name gets its meaning from "a great number of particular ideas," all of which it signifies indifferently.

THE RELATION OF WORDS TO ideas raises still other problems in the theory of signs, prob-

lems which have peculiar interest in the tradition of the liberal arts. One of these problems has already been mentioned. It is the question whether some words signify ideas alone, in contrast to words which signify ideas and, through them, things. This suggests the parallel problem of words which signify words, in contrast to words which are the names of things.

In his little tract *Concerning the Teacher*, Augustine points out that some words, such as "noun" and "adjective," signify kinds of words, just as other words, such as "man" and "stone," signify kinds of things. Furthermore, in the sentence "man is a noun," the word "man" signifies itself as the object referred to; whereas in the sentence "man is an animal," the word "man" signifies a living organism of a certain sort. The same word, therefore, may signify both itself and some thing other than itself.

These differences which Augustine observes in the signification of words come to be formulated in the traditional distinction between the first and second imposition of words. A word is used in the first imposition when it is used to signify things which are not words, as, for example, the word "man" when it refers to a human being. A word is used in the second imposition when it is applied to words rather than things, as, for example, the word "noun" said of "man," or the word "man" when it is used to refer to itself in the sentence "man is a noun."

A parallel distinction is that between words used in the first and the second intention. When the word "man" is used to signify a living organism of a certain sort, it is used in the first intention because it signifies a reality, not an idea. A word is said to be used in the second intention when it signifies an idea rather than a thing. For example, in the sentence, "man is a species," the word "species" signifies a logical classification and so is in the second intention; and the word "man" is also in the second intention because it refers to the idea which is denominated a species.

In some cases, an idea may not signify things at all, but only other ideas, such as the logical notions of *genus* and *species*. Words

like "genus" and "species," unlike the words "man" and "stone," can therefore be used only in the second intention. The idea *man* is called a "first intention of the mind" because its primary function is to signify the living thing. Only secondarily does it signify itself as an object able to be considered. The idea *species*, on the other hand, is called a "second intention" because its sole function is to signify ideas which stand to other ideas in a certain relation.

Hobbes concisely summarizes most of these points when he points out that some words "are the names of the things conceived," whereas "others are the names of the imaginations themselves, that is to say, of those ideas or mental images we have of all the things we see and remember. And others again are names of names . . . as 'universal,' 'plural,' 'singular,' are the names of names." The names which we apply to particular species and genera, such as "man" and "animal," Aquinas says, "signify the common natures themselves, but not the intentions of these common natures, which are signified by the terms *genus* or *species*."

ANOTHER TRADITIONAL distinction in the modes of signification is that between intrinsic and extrinsic denomination. A name is said to be an intrinsic denomination when it is applied to a thing in order to signify its nature or its inherent properties and attributes, as, for example, when we call a thing "animal" or "rational," "white" or "square." A name is said to be an extrinsic denomination when it is applied to a thing only in order to signify some relation in which that thing stands to something else, as, for example, when we call sunshine "healthy" because it helps to produce healthy organisms or when we apply the names of animals, such as "pig" or "fox," to men because we think the men bear certain resemblances to these animals. The same word can be used in different connections both as an intrinsic and as an extrinsic denomination. "Healthy" means an inherent quality when it is applied to living organisms, and a causal relation to organic health when it is applied to sunshine; "pig" means a certain kind of animal when it is applied to the four-footed mammal,

and only a resemblance to this animal in certain characteristics when it is applied to men.

This double use of the same word exemplifies what is traditionally called "equivocal speech" or the equivocal use of a name. Some writers tend to identify equivocation with ambiguity, on the ground that both involve a multiplicity of meanings for the same word. Others seem to think that a word is used ambiguously only if its user is indefinite as to which of its several meanings he intends to express; but they hold that a word can be used equivocally without ambiguity if its user makes plain that he is employing it now in this sense, now in that.

Aristotle says that two things are named equivocally "when though they have the same name, the definition corresponding with the name differs for each"; and "on the other hand, things are said to be named univocally which have both the name and the definition answering to the name in common." When we call a man and a pig an "animal," we are using that word univocally because we are using it with the same definition or meaning in both cases; but when we call a pig and a man a "pig," we are using that word equivocally because we are using it with different meanings, signifying *having the nature of a pig* in one instance and *being like a pig in certain respects* in the other.

Aristotle distinguishes several types of equivocation, of which we have already noted two. The use of the word "healthy" to describe an animal and sunshine is that type of equivocation in which the same word is used to name an inherent attribute and also a cause of that attribute; in other instances of the same type, it might be used to name the nature or attribute and the effect rather than the cause. Speaking of a man and a pig as a "pig" represents the metaphoric type of equivocation, in which the same word is used to name the nature of a thing and something else of a different nature which has only a likeness to that nature.

Metaphors, in turn, can be divided into types. Some are based on a direct similitude between two things in some accidental respect, e.g., the man who is like a pig in man-

ner of eating. Some, Aristotle says, are based on analogies or proportions, as, for example, when we call a king the "father of his people." Here the metaphor is based on the similarity of the relationship of a king to his subjects and of a father to his children. The name "father" is used metaphorically when it is transferred from one term in this proportion to the term which stands in an analogous position.

A third kind of metaphor, according to Aristotle, consists in the use of the same word now in a more generic, now in a more specific sense, or with broader and narrower meanings. Of this he gives an example in the *Nicomachean Ethics* when he discusses general and special justice, using the word "justice" narrowly to signify one of the special virtues and broadly to mean all the virtues considered in their social aspect. There is a sense of the word "justice," he writes, in which it signifies "not part of virtue but virtue entire"; "this form of justice is complete virtue, though not absolutely, but only in relation to our neighbor." The word "injustice" is also used in a correspondingly wide sense. But there is "another kind of injustice which is a part of injustice in the wide sense." This "particular injustice," Aristotle says, "shares the name and nature of the first, because its definition falls within the same genus." As Aristotle treats this type of equivocation in the *Rhetoric* and the *On Poetics*, it includes three possibilities: the transfer of the name of a genus to one of its species, the transfer of the name of a species to its genus, and the transfer of the name of one species to another in the same genus.

It may be questioned whether this type of equivocation is properly classified as metaphorical, on Aristotle's own definition of metaphor as "giving a thing a name that belongs to something else." In the type of equivocation exemplified by the use of the word "justice," now with a generic and now a specific meaning, the name does not seem to belong to the genus any more than it does to the species, or conversely. In contrast, when the name "father" is given to a king in relation to his people, the usage is metaphorical, because the name "father" belongs to something else, *i.e.*, the man who is a progenitor.

The same point can be made in terms of intrinsic and extrinsic denomination. When "justice" is used as the name for the whole of virtue (regarded socially) and also for one particular virtue, the word is an intrinsic denomination in both instances. In all other types of equivocation, the equivocal word is used once as an intrinsic and once as an extrinsic denomination; for example, as applied to the animal, the word "pig" is an intrinsic denomination, but it is an extrinsic denomination when it is applied to a man in order to signify a certain resemblance to the animal to which the name belongs. The same is true in the case of the word "healthy" as said of an animal and of sunshine.

In all these cases of equivocation, the two meanings of the same word are not totally distinct. On the contrary, the two senses have something in common. One of the meanings seems to be derived from the other; one appears to be secondary (usually the one involved in the extrinsic denomination) and the other primary. What is traditionally called "equivocation by chance," in contrast to equivocation by intention, is the extreme case in which the same word is used in two utterly distinct senses, having no common element of meaning at all; *e.g.*, the word "pen" used for a writing instrument and an enclosure for animals. Equivocation by intention, in which the different meanings of a word have something in common, thus appears to be intermediate between equivocation by chance (in which the meanings share no common element) and univocal usage (in which the meaning is exactly the same each time the word is used).

In the *Physics*, Aristotle seems to discover still another type of equivocation. "A pen, a wine, and the highest note in a scale are not commensurable," he writes. "We cannot say whether any one of them is sharper than any other . . . because it is only equivocally that the same term 'sharp' is applied to them." This does not seem to be equivocation by chance, for the word "sharp" seems to have some common meaning as applied to the three objects which affect the diverse senses of touch, taste, and hearing; nor is it like all other cases of equivocation by intention, in that no one

of these three meanings of "sharp" seems to be primary and the others derived from it. Furthermore, in all three meanings, the word "sharp" is used as an intrinsic denomination.

In the *Metaphysics*, Aristotle also considers the special pattern of meaning which words like "being" or "one" have when they are applied to such heterogeneous things as substances, quantities, etc. He refers to these words as ambiguous or equivocal, comparing them with the word "healthy" as said of an animal, and of other things which either cause health or are effects of health. It may be questioned, however, whether "being" is equivocal in the same way that "healthy" is, since it always carries the significance of an intrinsic, never of an extrinsic denomination. "Being" as said of heterogeneous things seems to be more like "sharp" said of diverse sensible qualities—having a meaning which remains somehow the same while it is diversified in each case according to the diversity of the objects to which it applies.

THESE CONSIDERATIONS of the univocal and the equivocal sign, along with the treatment of ambiguity and intrinsic and extrinsic denomination, indicate the extent and manner in which the great books anticipate the kind of analysis which in our time has come to be called "semantics." The chapter on LANGUAGE gives further evidence of the fact that many of the points and distinctions made in contemporary semantics have a long history in the tradition of the liberal arts. Furthermore, as the chapter on LANGUAGE indicates, contemporary semantics cannot even claim novelty for its great interest in freeing men from the tyranny of words or in serving as a critical instrument to cut through the "vicious abstractions" of metaphysics. Hobbes and Locke frequently dismiss theories not on the ground that they are false, but rather because they think that the statement of them consists in so many meaningless words.

In the tradition of the great books, the analysis of words and their modes of signification seems to be motivated by other interests as well as these. The distinction between the univocal and the equivocal sign, for example,

is considered in its bearing on the logical problems of definition and demonstration as well as for the sake of proposing remedies to safeguard discourse against ambiguity. It is also brought to bear upon the theological problem of the meaning of the names men apply to God and on the way in which they interpret the words of Sacred Scripture.

The problem of the names of God is discussed in the chapter on SAME AND OTHER in terms of the kind of likeness which can obtain between an infinite being and finite creatures. As there appears, Aquinas takes the position that God and creatures are neither the same in any respect, nor are they in all respects so diverse as to be utterly incomparable. Though an infinite and a finite being are in his view incommensurable, yet they can also have some sort of similitude—not an unqualified sameness, but the kind of similarity which can be described as an intrinsically diversified sameness.

Aquinas holds, therefore, that no names can be applied to God and creatures univocally, for "no name belongs to God in the same sense that it belongs to creatures." Nor, he goes on, "are names applied to God and creatures in a purely equivocal sense," for it would follow then that "from creatures nothing at all could be known or demonstrated about God," which supposition Aquinas denies. Between these two extremes of the simply univocal and the purely equivocal, he finds a middle ground in a type of signification which he calls "analogical." The meaning of an analogical name, he says, "is not, as it is in univocals, one and the same; yet it is not totally diverse as in equivocals."

What he means by "pure equivocation" seems to be what earlier writers call "equivocation by chance," and what he means by the "analogical" seems to correspond to what they call "equivocation by intention." "Univocal names have absolutely the same meaning," he writes, "while equivocal names have absolutely diverse meanings; whereas in analogicals, a name taken in one signification must be placed in the definition of the same name taken in other significations; as, for instance, "being" which is applied to *substance* is placed



in the definition of "being" as applied to *accident*; and "healthy" applied to *animal* is placed in the definition of "healthy" as applied to *urine and medicine*."

But, as we have seen, there are many types of equivocation by intention—the attributive, based on cause and effect, as exemplified by the word "healthy"; that involving broader and narrower meanings, exemplified by the word "justice"; metaphors, of the sort exemplified by calling a man "pig," and of the sort based on analogies, when we speak of a king as the "father" of his people; and, finally, the very special type of equivocation found in "sharp" applied to a tone, a taste, and a touch.

If Aquinas places the kind of signification he calls "analogical" in the general area of equivocation by intention, it may be asked whether the various names of God are all analogical *in the same way*. The answer seems to be negative, for he distinguishes those names which have only a metaphoric sense when said of God, such as "angry" or "jealous"; and he denies the opinion of those who say that God is called "good" only in an attributive sense, *i.e.*, signifying him to be the cause of the goodness found in creatures. On the contrary, he thinks that words like "good" and "wise," and especially the name "being," are to be interpreted as intrinsic denominations when applied to both God and creatures.

For Aquinas, as for Aristotle, that would appear to make the pattern of meaning exhibited by the word "sharp" the model for the significance of "being" rather than that found in the merely attributive equivocation of the word "healthy"—whether "being" is said of substance and accidents, or of God and creatures. The point seems to be unaffected by the fact that Aquinas calls this type of signification "analogical," whereas Aristotle always refers to "being" as equivocal. Aristotle never treats any type of equivocation as analogical except the metaphor which results from transferring the name of one term in a proportion to another term standing in the same or a similar relationship.

THE DISTINCTION BETWEEN literal and figurative or metaphoric speech seems to be of

prime importance in the theologian's rules for interpreting the word of God. As indicated in the chapter on RELIGION, Augustine insists that the language of Holy Writ must be read in many senses. Aquinas distinguishes a basic literal sense from three modes of spiritual meaning. That signification "whereby words signify things belongs to the first sense, the historical or literal. That signification whereby things signified by words have themselves also a signification is called the spiritual sense, which is based on the literal and presupposes it." The spiritual sense Aquinas divides into the allegorical, the moral, and the analogical.

To grasp the various spiritual meanings, the reader must understand that in Holy Scripture "divine things are metaphorically described by means of sensible things." As in the symbolism of the sacraments, physical things serve as the outward and visible signs of an inward and spiritual grace, so also "in Holy Scripture spiritual truths are fittingly taught under the likeness of material things."

A theologian like Aquinas thus justifies metaphors not only in Scripture, but also in sacred doctrine or theology, as "both necessary and useful," whereas in his view the poet's employment of them is solely for the sake of pleasure. Philosophers and scientists, on the other hand, often take the opposite view—that metaphors have a place only in poetry and should be avoided in the exposition of knowledge.

In the writing of poetry, "the command of metaphor," says Aristotle, "is the mark of genius," but all his rules for the construction of scientific definitions and demonstrations require the avoidance of metaphors, as of all other forms of equivocation. So, too, Hobbes inveighs against metaphors and figures of speech, giving as one of the main causes of absurdity in science "the use of metaphors, tropes, and other rhetorical figures, instead of words proper. For though it be lawful to say, for example, in common speech, *the way goeth, or leadeth hither, or thither; the proverb says this or that* (whereas ways cannot go, nor proverbs speak); yet in reckoning, and seeking of truth, such speeches are not to be admitted."

Darwin looks forward to the day when "the terms used by naturalists, of affinity, relationship, community of type, paternity, morphology, adaptive characters, rudimentary and aborted organs, and so forth, will cease to be metaphorical and will have a plain significance." Freud, on the other hand, aware of how pervasive symbolism is in all works of man, normal and neurotic, dreaming and awake, seems to be reconciled to the inevitability of metaphors in scientific discourse. The difficulty we meet with in picturing certain psycho-

logical processes, he writes, "comes from our being obliged to operate with scientific terms, *i.e.*, with the metaphorical expressions peculiar to psychology . . . Otherwise we should not be able to describe the corresponding processes at all, nor in fact even to have remarked them. The shortcomings of our description would disappear if for the psychological terms we could substitute physiological or chemical ones. These, too, only constitute a metaphorical language, but one familiar to us for a much longer time and perhaps also simpler."