LANGUAGE AND LOGIC

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I

In a previous article, "Logic and Language" (The Gordon Review, II [February, 1956, 3-9), I dealt most sketchily with the topic of language. The present attempt will go further into the subject.

The interest in language was motivated by the effect certain theories might have on the doctrine of verbal inspiration and on the literal interpretation of Scripture. The previous article showed this motivation clearly; but as the discussion becomes more technical here, the end in view may be temporarily lost sight of.

First it may be well to indicate roughly the nature of the subject by asking some of the questions that need to be answered: What is a word? How can a sound be meaningful? Does thought exist before and apart from language? How did language originate? Is language adequate for a knowledge of reality, or is its nature such that it automatically distorts the universe? Is all language symbolic and metaphorical, or are some sentences strictly literal? These and similar questions give a preliminary idea of the problem.

Let us choose as the starting point one phase of the origin of language. The Bible makes a brief mention of the diversification of tongues; but the origin of the previous single language is passed over in silence. Similarly, outside the Bible, no historical information is available on the first occurrence of speech. For this reason theories of the origin of languages are speculative conclusions based on more general philosophic principles.

A theory common today holds that words originate in sense experience. All words are supposed to have had originally a physical reference. Words denoting relations are said to be primarily spatial. If a word is said to *stand for* an object, the relation "standing for" is derived from positions in space; similarly a thought is *in* my mind as a chair is in a room; and what is

worse, for logic, the *inclusion* of one class in another, e.g. all mammals are vertebrates, is also a spatial relationship.

If all words are primarily physical or sensuous, and if relations are basically spatial, either language cannot properly apply to spiritual and non-spatial objects, or it must be explained how the physical meaning can be changed into a spiritual meaning. How can sensory experience give rise to words for soul and God? Attempts have indeed been made to explain this extension of language, and these attempts should not be prejudged without examination. At the same time the physical origin of language is today frequently put in a form that makes this extension extremely difficult and in fact impossible.

Evolutionary theory is committed to tracing human language back to the cries and grunts of animals. Then by slow, gradual, and unspecified changes, these animal sounds eventually after many centuries become the words of human language. Inasmuch as the individual steps in the process have never been enumerated, it is hard to test the theory. It is all the harder since in the first place the exact status of animal sounds is not too clear. Parent birds give warning cries to their fledglings, and this can be construed as an example of the indicative function of language. But the cry probably does not indicate whether the danger is a hawk or a human being. Perhaps it may be said that the cry means, *Danger!* Or, *Look out!*, and thus some plausibility may be gained for the theory by assimilating the cry to a word-sentence. But whatever the indicative function of such a cry may be, it must be one that is extremely vague. Nothing descriptive of the object is said. Note too the important fact that animal sounds are instinctive; they remain the same in all countries where the species is found; they also remain unchanged from generation to generation; whereas the words of language to not.

If none the less it is possible to find some connection between animal sounds and human speech, the theory under consideration has taken a form in which instead of animal sounds developing into meaningful speech, speech is reduced to the level of animals. Or, it may even be said, human language is reduced below the level of cries and grunts, if these are supposed to bear some conscious meaning.

That is to say, evolutionary behaviorism not only makes language physical and sensory in its origin, but maintains it on the same level.

Leonard Bloomfield (*International Encyclopedia of Unified Science*, I, i, 227) speaks of responding to sounds "in a kind of trigger effect." Four pages later he says, "The scientific description of the universe ... requires none of the mentalistic terms because the gaps which

these terms are intended to bridge exist only so long as language is left out of account." He then offers the choice of behaviorism, mechanism, operationalism, or physicalism. In the continuation he further asserts, "Language bridges the gap between the individual nervous systems" (p. 233); and "Thinking is inner speech" (p. 235). Here, of course, "inner" is spatial.

To avoid all mentalistic terms, naturalism equates the meaning of a word with the response of the organism, and the response is a physico-chemical reaction caused by the total environment. Not only the word but its meaning is a physical effect and in turn a physical cause. The word is not a sign of a concept, nor is the meaning a mental picture that resembles the object. Neither word nor meaning represents anything. The whole situation is exhausted in a chain of causes and effects in which a nervous system is one link. In animal behavior, when a robin sees a worm, the "sign" of the worm is a physical modification of the robin produced by light rays reflected from the worm. But one may wonder if the robin has a sign any more than the supermarket's electric eye has. And if this is the case, could not an early form of language be found in the electric eye? The behaviorist would doubtless agree, but others have an uncomfortable feeling that there is a difference between physical causation and the interpretation of signs. It is a difference that cannot be expressed in the physical categories of space and motion. A mind is needed. Beyond any motion there must be intellection. In language the words or signs can occur, perhaps not apart from all causation, but apart from the usual causation. We may use the term *worm* when we see one, or we may use the term merely as an example in a linguistic discussion. We may call it a noun and remark that it could be the subject of a verb. Are these remarks nothing but physical motions? Is the sound *worm* the chemical effect equally of light rays and a linguistic discussion? Is the sound *noun* nothing but a physical effect of previous physics? Here the behavioristic explanation can be accepted only on blind faith. No, not even one blind faith, but by blind physics. It happens, however, that my physics causes me to make other sounds, such as the sounds *mind* and *intellect*, and especially the sounds: The physics in my larynx is as good as the physics in yours.

It is not the present purpose, however, to itemize objections to the behavioristic theory of language. The importance point is that the theory of language is not arrived at by a study of language. No one has ever seen "language bridging the gap between two nervous systems." No one has ever isolated the cause which produced the word worm instead of the word noun. Instead of being based on a study of words, the behavioristic theory of language is an implication from the general position of naturalism. If the present discussion were mainly concerned with behaviorism, this general theory would require a more extended examination.

Eventually no doubt an alternate theory of language will also be based on some general worldview. References to and partial confirmation by linguistic phenomena must be appealed to; but it seems improbable that a purely phenomenological argument could place a theory of language beyond all doubt.

II

Let us then assume that an omnipotent God has created rational beings, beings who are not merely physical but essentially spiritual and intellectual, beings therefore who have the innate ability to think and to speak. What then are the implications relative to the problems of linguistics that can be drawn from this theistic presupposition?

Two sets of conclusions appear almost immediately. First, language cannot be assigned a solely sensory origin and a primitively physical reference. Theism of course need not deny that the names of animals and things refer to sensorily perceived physical objects; it need not deny that spatial relationships are well represented in language; it need not deny or distort any of our common gross experience. But it must assert that an essential purpose of thought and language is to think and talk about God and spiritual realities. The idea of God would be an immediate spiritual impression made by God in the soul; and the word God would be the vocal sign of that idea. For this reason a theistic theory of linguistics would not labor under the burden of giving a precarious derivation or development of spiritual meaning from primitive physical reference. The dubious appeal to metaphor, symbolism, or analogy to explain this transition would be unnecessary.

A second conclusion that comes quickly from the theistic presupposition is that language is adequate for its purpose. Behaviorists and other exponents of naturalism who do not acknowledge themselves as behaviorists hold that the purpose of language is to enable human beings to adjust themselves to the physical world. Since the universe is in a state of Heraclitean flux, the selecting and arresting of a stage of this flux for our practical attention is a distortion of reality. Or, the older atomistic theory arrives at the same linguistic conclusion from a different metaphysics. The ultimate realities are atoms, individual, discrete, disconnected, permanent particles. Language, on the contrary, is full of connectives humanly chosen, not because of anything in nature, but because these connections are useful in practical life. Therefore language is arbitrary and distorts nature.

Theism will deny that this is the purpose, at least the sole purpose, of language. Operationalism may well be an acceptable theory of positive science. Possibly the formulas of

physics and chemistry are not descriptions of antecedent reality but are plans of action to bend nature to our desires. But if the physical world is neither the only nor the most important world, language and life have other purposes. The chief end of man is not to adjust to physical reality but to glorify God and to enjoy him forever. Inasmuch as language was given to man for this purpose, it must be concluded that language is theologically adequate.

III

Although these two linguistic principles will control the detailed development of a theistic theory of language, it does not seem possible to deduce these details from the principles without any appeal to linguistic phenomena. Our interpretation of language must conform to the basic theism, but the language to be interpreted is the ordinary language of everyday life. The program is similar to that of physics. A philosopher will insist a priori that all the laws of physics must conform to rigid mechanism, if such be his metaphysics; or, if not, he will make them statistical laws; but levers and freely falling bodies are to be found in the form of golf balls and dubs. In the same way we must consider the actual use of words.

From among the many interesting details of linguistic usage, we shall select but one for this article; and since the original motivation related to the literal interpretation of Scripture, that one will be the literal use of language. Until recently this would hardly have furnished an issue to be discussed; but in the recent past some linguists, studying metaphor and symbolism, have said that language is never to be literally understood.

To have something concrete to consider, quotations will be made from W. M. Urban's *Language and Reality* (1951). The great length of the volume and the later modifications of views given on earlier pages make it impossible to do full justice to the author's precise position. The quotations must be taken as they are, apart from the complete context, simply as fairly faithful expressions of a widely held point of view.

> There are no strictly literal sentences [p. 433]. Now strictly speaking, there is no such thing as literal truth in any absolute sense, for there is no such thing as absolute correspondence between expression and that which is expressed. . . . Any expression in language contains some symbolic element [pp. 382-383].

Now, first, it may be remarked, if there are no literal sentences at all, the meaning of statements in the Bible is vitiated no more than the meaning of statements in Caesar's Gallic Wars. "David was king of Israel" and "All Gaul is divided into three parts" are on the same level.

They may both be called figurative or metaphorical or symbolic, but they are both historical in exactly the same sense. If all language is symbolic, the verbal inspiration of the Scriptures is no more in danger than the correct interpretation of any other text.

However, to call all language symbolic seems to empty of all significance other the commonly recognized distinction between literal and figurative. Can one approve a theory of language that denies this distinction? What then was the reason for violating common usage?

Urban said, "There is no such thing as absolute correspondence between expression and that which is expressed. Accordingly, in the second place one must ask whether there is absolute correspondence and whether this is required for literal meaning. The notion of correspondence is vague. No one supposes that a word corresponds to a thing in the way that a photo corresponds to its object. Language is not a picture of reality, and cannot possibly be in the case of spiritual realities, if such there be. But what if a word is a sign?

In criticizing the view that words are arbitrary or conventional signs of ideas and things, Urban several times appeals to an intuitive content in words. Primitive words are supposed to imitate, in some way or other, the things to which they refer. The word ache, derived from the sound rich, is supposed to sound like a pain feels. While some people with lively imaginations think that this is plausible, examples taken, not from one's mother tongue, but from unknown languages will remove the plausibility. One of Urban's examples is *ouatou* and *ouatou-ou-ou*. He first gives the meaning in English and then asks if the word does not sound like the thing. If it did, that is, if there were an intuitive meaning in the sound, it should be fairly easy to guess the meaning of the word. Now, among a million people someone might make a lucky guess; but the others would almost surely fail. Did you recognize all along that the two words mean stream and ocean?

On the other hand, if words are conventional signs, there can be absolute correspondence— if anyone wishes to call it that —by stipulation. This is seen most dearly in the terms that scientists deliberately coin. Volt and ohm "correspond" completely to their referents. At any rate, when one says that the electric circuit in the house is one of 110 volts, the language is utterly literal. Aside from the technical terms of science this is also true of many common sentences. The words *dog*, *chien*, and *Hund* have no intuitive content. They are mere signs. Therefore when one says, "The dog is black," one ordinarily expects to be taken literally. In such sentences there is no symbolic element. And this is true also of "David wrote the Psalms."

It must be admitted that Urban puts his finger on a serious difficulty in the view that words are conventional signs. It is that a first convention would not be understandable. Communication would be impossible. The biblical Adam and Eve or the first two evolutionary savages could not have talked to one another. Adam would have selected a sound for tree, sun, or air, and Eve would have had no idea what it referred to.

The difficulty of explaining communication has long been recognized. The famous treatise of St. Augustine was preceded by the keen insight of Gorgias. But the implausibility of intuitive content in words, the plausibility that they are mere signs, plus the fact that intuitive content itself would not be of much help in solving the enigma of communication are persuasive reasons for not following Urban.

There is another phenomenon also which, though it furnishes no explanation of communication, fairly effectively answers the objection to it. Even if some primitive words had an intuitive content, the languages of today have virtually none. Must not even Urban admit that ninety-five percent of all words are now conventional signs? Remember *dog*, *chien*, and *Hund*. But infants learn to speak and parents communicate with them. Not only so, but adults also have learned the little-known languages of remote tribes by living with them. These two miracles, the infant and the missionary, will be better understood within a theistic philosophy than on a naturalistic premise. But in any case the "absolute correspondence" of arbitrary signs to referents remains and literal sentences occur.

Urban's attack on the possibility of literal sentences continues by the alleged discovery of an ambiguity in the term literal.

> The term literal is ambiguous . . . This may mean merely the opposite of figurative, and the rendering of symbolic sentences into literal sentences is equivalent to the expression of the figurative in non-figurative fashion. But literal has also another meaning, namely, primitive meaning. To interpret a symbol sentence literally would, then, be to interpret it according to the primary or original meaning of the words. If literal be taken in this second sense, then to say that expansion of a symbol sentence is the substitution of a literal sentence is wholly false. For the symbolic meaning is precisely not the literal meaning. So interpreted the symbol sentences, Napoleon is a wolf . . . are false [p. 433].

This quotation betrays a great confusion. The source and explanation of the confusion may become apparent a little later as his argument for the necessity of symbolism is further developed; but the point of confusion is obvious here. The quotation does not in fact give two

meanings of the term literal. Literal in the sense of the opposite of figurative does not differ from literal in the sense of primitive meaning. Urban has taken for ambiguity in the term literal two different procedures of interpreting figurative sentences. The example was, "Napoleon was a wolf." The literal, non-figurative, primitive meaning of the word wolf is of course a certain type of wild animal. To say that Napoleon has four legs and a shaggy coat is of course false. But while the predicate of the figurative sentence was not intended to be understood literally, the intended meaning can be stated in literal language: Napoleon was a wanton killer. And he is a wanton killer in the primitive and non-figurative sense of the words. Granted that the interpretation of a figurative sentence according to the primary and original meanings of the words results in a false or absurd misunderstanding of the intended meaning; yet it does not follow that the expansion of a symbol sentence by the substitution of a literal sentence is wholly false, It is a question of which literal words are chosen. It is not a matter of ambiguity in the term *literal*.

The source and motivation of this confusion lie in the view that "the symbol expresses adequately for our type of consciousness that which could not be fully expressed in literal' sentences" (p. 444). It is not true that whatever is expressed symbolically can be better expressed literally. For there if no literal expression, but only another kind of symbol" (p. 500). "The symbolic consciousness, as we have seen, is a unique form of the cognitive consciousness" (p. 435). "Thus to expand the symbol tends to defeat its end as a symbol" (p. 434). Another contributing factor to the confusion above is the opinion that when the term *literal* is defined as primary meaning, "a literal sentence is one which refers to a sensuously observable entity.... Applying this notion of literal … to the language of morals and religion … all such language is pronounced meaningless" (p. 436). In order therefore to present some meaning in religious language against the attacks of the logical positivists, Urban believes he is forced to his view of symbolism.

However, one may ask why the idea of primary meaning must be equated with a sensuously observable referent? On the principles of a naturalistic evolution the motions of magic and incantation may have been the primary sensuous meaning of the word God. But even so, unless those singes had some prior notion of a being to be invoked, it is difficult to understand why they would have gone through the motions. A fortiori, on theistic principles the idea of God, to which an arbitrary sign is given, comes directly from God; and the magic incantations of savages are deteriorated forms of a pure original worship. In such a degenerate religion it is quite possible that words of original spiritual meaning may have been transferred to

physical objects, just as idols replace God. The term God therefore can be a literal term whose primary meaning is not sensuous.

<center>IV</center>

If then religious language can be literal, is it necessary to rely on symbols as adequate expressions of what cannot otherwise be adequately expressed? Is it not, on the contrary, more plausible to suppose that symbolic sentences, whatever vividness and literary embellishments they afford, fail express adequately what is fully, clearly, and accurately expressed in literal language?

Opposing any such suggestion Urban writes:

In Whitehead's words, the symbol is merely a surrogate fur something else, and what we want as that something—not the substitute In other words, the ideal would be to dispense with symbolism or to have wholly non-symbolic truth. This, it seems to me, is a fundamentally mistaken notion. In the first place, such an ideal is really impossible in view of the very nature of language and expression. If there were such a thing a, wholly non symbolic truth, it could not he expressed [pp. 445-446].

Yet this that Urban considers "a fundamentally mistaken notion" seems to another type of mind to be fundamentally correct. Some evidence has already been given in support of the contention that such an ideal is not really impossible. One further example will be given, and this must suffice.

As this final example, and to bring the discussion more closely into connection with the question of the verbal inspiration of the Scriptures, let us take the words of John the Baptist, "Behold the Lamb of God:' The lamb is a symbol.

A symbol is a sign, but not all signs are symbols. The plus and minus signs of arithmetic, even though they may sometimes be called mathematical symbols, are just conventional, arbitrary signs. Marks of other shapes could have served as well. But as a symbol of Christ an elephant could not have send as well; and a fish was later used only because of an acrostic. John the Baptist's choice of a lamb was not arbitrary; it was rooted in the Mosaic ritual. An arbitrary sign, whether a word or a mathematical figure, merely designates the concept. When we are studying mathematics or reading a newspaper, we do not normally think of the shape of the signs, but rather we give exclusive attention to the thing signified. In the case of a symbol,

however, some of our attention is fixed on the symbol. If the Baptist had said, "Jesus is Lord," no one would have given thought to the sound as such; and there is nothing in the situation except the sound and the meaning. But when he said, "Behold the Lamb," the situation included not only Jesus and the sound of the words, but also the lambs that the word Lamb summarized. To understand the Baptist's message about Christ therefore, it was necessary to think how literal lambs could symbolize Christ. This is not the case with a designatory sign.

John the Baptist expected his auditors to remember the sacrifices in which the worshipping sinner had placed his hands on the head of the lamb, killed the lamb, sprinkled the blood round about the altar, and burnt the lamb on the altar. Because of these reminiscences the Baptist's language was vivid. He pictured the ritual of the ages. One word summarized an entire religious system

But is this symbolism adequate? Does it express what cannot otherwise be expressed?

Undoubtedly this symbolism was adequate to attract the attention of the auditors. In doing so, it functioned more effectively than a lengthy literal explanation. Symbolism and the more ordinary figurative expressions have their use; and unless they were better adapted to their aim than other language, they would cease to be used.

Yet, if the purpose is insight and understanding, symbolic language must be recognized as seriously inadequate. If a missionary should repeat John's words to people who had never heard of the Jews, the meaning would not be conveyed. Even if one knew that the Jews killed lambs and went through certain motions, one would hardly guess what John meant. First of all literal language is necessary to explain the significance of the Jewish sacrifices. The death of the lamb represented the penalty of sin incurred by the repentant Jew. But though the man had incurred the penalty, the penalty was discharged by a substitute. And God was satisfied. Yet the visible sacrifice was itself symbolic of a greater sacrifice. There was some future event prophesied in which one whose visage was so marred more than any man would be led as a lamb to the slaughter, by whose stripes we are healed. Then centuries later John the Baptist announced, "Behold the Lamb of God that taketh away the sin of the world." The Lamb is a symbol of the vicarious satisfaction of justice.

Without such a background of literal meaning, one could hardly guess the point of the symbol. One would not know what the symbol symbolized. The symbol is merely a surrogate for something else, and what we want is the real thing and not the symbol. To be sure, the lamb is not simply an arbitrary sign, as the swastika was for the Nazis; but unless some literal

information was forthcoming, John's symbolic sentence could not be understood. With this information it can be.

On a theistic world view therefore, a view which holds that God created man and revealed himself to him in words, language is adequate for theology. Linguistics, unless controlled by naturalistic, atheistic presuppositions, can therefore offer no objection to the doctrine of verbal inspiration. The Scriptures contain metaphors, figures of speech, and symbolism; for the Scriptures are addressed to men in all situations—situations in which their attention needs to be aroused and their memory facilitated, as well as situations in which plain information is required. But since symbolic language and metaphor depend on literal meaning, the most intelligible and understandable expressions are to be found in the literal theological statements, such as those in Romans. And outside the Bible the most accurate and satisfactory expressions of Christianity are the carefully worded creedal statements of the Westminster Confession.