

A Response to U. T. Place

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Skinner's (1957) analysis of verbal behavior has received an unwarranted amount of criticism over the years, and the recently published reviews of *Verbal Behavior* by U. T. Place contribute to this body of negative literature. It is argued that Place, like those before him, has failed to appreciate several critical features of behaviorism and Skinner's analysis of verbal behavior. Place's "four major defects in *Verbal Behavior*" are reviewed and analyzed. The results seem to indicate that Place's dissatisfaction with the book would be greatly reduced by a better understanding of Skinner's work.

U. T. Place published two papers on Skinner's analysis of verbal behavior in the ninth volume of *Behaviorism* (Place, 1981a, 1981b). In the first paper Place presents a detailed argument for the value of Skinner's *Verbal Behavior* (1957). The main focus of the paper is on an analysis of intensionality and the causes of behavior. Place rejects traditional theories of intensionality because they are based on the assumptions that (1) the linguistic skills being analyzed are already possessed by the agent, (2) the agent would say what we are implicitly claiming he would say, and (3) there is a causal connection between what an agent does and what he says (pp. 14-15). Place concludes that these assumptions are circular and cannot be used to explain behavior, hence a nonintensional theory is needed for explaining linguistic behavior. Skinner's analysis of verbal behavior meets that requirement, however, Place is far from satisfied with its current form. (Note that Place's reasons for rejecting intensional theories of language are quite different from those of Skinner's; e.g., 1974, pp. 16-17).

The second paper (Place, 1981b) opens with a reiteration of the rejection of intensional explanations of language and the conclusion that:

Verbal Behavior, as it stands, simply will not do as a general account of the phenomenon of human language. . . and since there is no obvious alternative to the conceptual framework Skinner has developed. . . it follows that the only course of action open to us is to reexamine the defects of Skinner's theory with a view of putting right what is wrong and presenting a revised version of the theory which escapes those criticisms that have been justifiably leveled against the theory in its original form (p. 131).

Place's "revised version" of Skinner's analysis begins in the second paper and will be followed by three additional papers and a book (Place, Personal Communication).

PLACE'S ANALYSIS OF VERBAL BEHAVIOR

Place's interpretation of *Verbal Behavior* is quite different from that of most members of ABA's Verbal Behavior Special Interest Group. Perhaps the main difference is his heavy emphasis on the consequences of verbal behavior with a general tendency to deemphasize the role of antecedents, and the complete three-term contingency analysis. As a result of this orientation he does not find Skinner's elementary operants very useful. For example, since the consequences for the tact and the intraverbal are similar (i.e., generalized conditioned reinforcement, educational reinforcement, automatic reinforcement and contiguous usage) he sees no use for the intraverbal as a separate operant. Also, Place's view of the mand is in terms of consequences, or "specific reinforcement," and he conspicuously neglects the role of deprivation and aversive stimulation, or "establishing operations" (Michael, 1982). Furthermore, echoic behavior is considered trivial, and the textual and transcriptive relations are viewed as mands and tacts involving writing. Place concludes that "the basis of Skinner's account of verbal behavior is in the distinction between the mand and the tact" (p. 136). He then tries to analyze com-

plex examples of verbal behavior (like those given by Skinner in the autoclitic chapters) using only the tact relation and his consequence-based version of the mand. Also, since antecedents and response classes are not stressed, Skinner's detailed analysis of multiple control is neglected.

Given this approach to verbal behavior, and Place's orientation as a logician/grammarians/philosopher, it is reasonable to expect that he would find fault with Skinner's analyses and examples. Let us now address some of the issues raised by Place in his second paper. The body of that paper contains an analysis of "four major deficits of *Verbal Behavior*." These four deficits are discussed below. Since the first of his four objections is the "most fundamental defect in the account of language offered by Skinner in *Verbal Behavior*" (1981b, p. 132), the majority of this review will address issues raised by that objection.

THE FAILURE TO DISTINGUISH BETWEEN WORDS AND SENTENCES

During our discussions with Place, he stated several times that "the distinction between words and sentences is absolutely fundamental to any understanding of language." He was very reluctant to accept any alternative to this view, thus his position that:

Skinner has unaccountably thrown out what would seem to be a perfectly objective and indispensable distinction between sentences and the individual words of which a sentence is composed (p. 132).

Skinner has accounted for his behavior by pointing out that such a distinction is not perfectly objective and subject to several misconceptions about language and behavior in general. Skinner rejects the traditional emphasis on response form (mean length of utterance, words or sentences) as adequate measures of verbal behavior because they neglect controlling variables. A major theme of Skinner's analysis of verbal behavior is that the topography of a response alone is irrelevant; what is important is the relation of the response form to antecedents and consequences. In his discussion on this topic Skinner writes:

Formal specification... is not enough... the response must occur as a function of a certain variable. A bit of behavior as small as a single speech-sound, of even pitch or stress pattern, may be under the independent control of a manipulatable variable. . . . On the other hand, a large segment of behavior—perhaps a phrase like *vast majority* or *when all is said and done*, or *the truth, the whole truth and nothing but the truth* or a whole sentence such as *Haste makes waste*—may be shown to vary under a similarly unitary functional control (1957, p. 21).

The distinction between words and sentences achieved its prominence because of its convenience to structural linguistics as the unit of performance and their objective of standardizing the verbal conventions of large communities. Certainly such conventions are useful in a given community, but to argue that:

only complete sentences and those incomplete sentences which can be understood in the context of an utterance as equivalent to a specified complete sentence can 'convey' anything to the listener (Place, 1981b, p. 133).

is to imply that a listener cannot benefit from the verbal response of a speaker unless the speaker produces a unit that linguists would recognize as a sentence.

The verbal behavior of young children, or some retarded individuals, rarely meets the criterion of a grammatically complete sentence yet much is "conveyed." Also the deaf community, which until recently was ignored by linguists, seems to communicate quite well with units of verbal behavior lacking many aspects of the traditional sentence, although it is possible that Place would end up defining any verbal behavior that "conveyed" anything as a sentence.

Skinner's analysis of meaning is in terms of a functional relation between antecedents, behavior, and consequences. Any such relation can "convey meaning" but the effect upon the listener is dependent on the complexity of the relation, the history of the speaker, current contingencies, and so on. Grammatical sentences are only arbitrary distinctions invented by linguists, and somewhat supported by the earlier (philology) emphasis on written language.

The emphasis on the form of the response also presents problems for language assessment and training, especially with language delayed individuals. Typically, a young

child's verbal skills are measured by response form alone; the number of nouns, verbs, prepositions, etc. correctly emitted; the conformity to grammatical rules such as the syntactical construction and sentence completeness, and so on. However, these assessments rarely account for the controlling variables for these forms. Usually, the assessment is conducted for receptive behavior or under just tact contingencies. Two children may have the exact same standard score, but their verbal behavior may differ greatly in the natural environment. This is because one may have response forms in the repertoire as mands and intraverbal relations while the other does not. If these differences in verbal repertoires are not identified in the assessment, a child may not receive an adequate language training program (Sundberg, 1983).

Part of Place's reluctance to accept Skinner's analysis may be due to his interpretation of Skinner's "operant," and "functional unit." Place says that:

Skinner fails to appreciate the distinction between . . . words and . . . sentences (because) he would find himself in the embarrassing position of having to split apart the two defining characteristics of the operant. . . . An operant . . . for Skinner is firstly a functional unit of behaviour, the unit of behaviour that brings about a change in the environment or in the relationship between the organism and the environment. . . . But an operant is also, for Skinner the unit of behaviour that is repeated, whether on the same occasion or on a subsequent occasion similar to the first. It is important for Skinner that the unit that is repeated should coincide with the functional unit, because his fundamental explanatory principle is the strengthening and the weakening of the probability of an organism's repeating an operant according to the nature of the consequences it produces. . . . but in verbal behavior the unit which is repeated is not the functional unit (because) sentences are seldom repeated word for word (pp. 133-134).

There are two difficulties with this statement. First, Place has failed to account for the role of stimulus control in his definition of the operant, (e.g., "the two defining characteristics of the operant") and hence his understanding of the operant as always involving a relation between stimuli, behavior and consequences is questionable. This is exemplified by his repeated use of the word "functional" when referring to behavior and its consequences rather than a three-

term relation. This point of view is further exemplified by his neglect of antecedents in distinguishing between the elementary operants.

Second, the issue of repetition of a specific topography is somewhat inconsistent with Skinner's analysis. In regard to this issue Skinner (1957) writes:

an important principle in the analysis of behavior (is that we) distinguish between an instance of a response and a class of responses. A single response as an instance of the activity of an organism, may be described as fully as facilities will permit. But when we are concerned with the prediction of future behavior it may be either impossible to predict the great detail of a single instance, or more likely, unimportant to do so. All we want to know is whether or not a response of a given class will occur. By "of a given class" we mean a response showing certain selected properties. We may want to know whether a man will open a door although we do not care how he turns the knob (p. 16).

A response class may consist of a number of different response topographies (e.g., "wow," "great," "super;") which are under the control of the same environmental contingencies. Thus, the specific form of a sentence is impossible to predict, but as Skinner points out it is usually not important to do so.

CREATIVITY

Related to the issue discussed above is Place's analysis of creativity and novel verbal behavior. He writes that:

Skinner, for his reasons, exaggerates the amount of repetition and minimizes both the incidences and the significance of the ability to construct and respond to sentences which have previously been heard of formulated by the listener or speaker (1981b, p. 135).

This is simply not true. It appears that Place's failure to appreciate stimulus control is again demonstrated by neglecting Skinner's detailed analysis of multiple control (1957, chapters 9, 10, and 11). In those chapters Skinner explains in exquisite detail how variables combine to evoke novel responses. Multiple control "produces many interesting verbal effects, including those of verbal play, wit, style, the devices of poetry, formal distortions, slips, and many of the techniques of verbal thinking" (pp. 228-229).

Those three chapters hardly seem to minimize the significance of the variables responsible for novel verbal behavior. Also, Skinner has published several other papers on creative and novel behavior which Place did not reference (Skinner, 1936; Skinner, 1969; Skinner, 1970; Skinner, 1972). It seems that a failure to appreciate the full details of stimulus control, multiple control, autocalitics, response classes, and generalization is responsible for Place's statement:

I suspect that the only reason why such a concept (creative improvisation) is not already well established within the conceptual framework of Skinner's radical behaviorism is that...it is exceedingly difficult to provide an acceptable operational specification for the repeated occurrence of the same generalized response strategy when the topography of different occurrences of the same strategy varies from one occurrence to another (p. 135).

THE CONFUSION BETWEEN TACTS AS WORDS AND TACTS AS SENTENCES

Place is quite dissatisfied with Skinner's verbal operants as the basic components of a verbal repertoire. However, there is a major discrepancy between Skinner's definitions of the elementary operants and Place's interpretation of the definitions. Individuals who have a strong history with Skinner's analysis of verbal behavior will have no difficulty in identifying major inconsistencies in the following passage:

Skinner's failure to draw a clear distinction between the different functions of words and sentences in the analysis of verbal behaviour... has led to a radical confusion within the system of concepts which Skinner introduces in developing his own account of verbal behaviour.

The basis of Skinner's account of verbal behavior is the distinction he draws between mands and tacts. Skinner defines a mand as a verbal operant which is reinforced by subsequent and consequent behaviour on the part of a listener... "a tact (is) a verbal operant in which a response of a given form is evoked (or at least strengthened) by a particular object or event or property of an object or event" (Skinner, 1957, p. 82). A tact is later said to "stand in a unique relation to a discriminative stimulus which is set up by reinforcing the response as consistently as possible in the presence of one stimulus with many different reinforcers or with a generalized reinforcer... The resulting control is through the stimulus" (p. 83).

The upshot of this somewhat confused account appears to be that a tact is a verbal operant which is under the control of a particular object, event,

or state of affairs or class of objects, events or state of affairs in the common stimulus environment of the verbal community. To say that a tact is under the control of such a stimulus object is to say (a) it is liable to be emitted by a speaker in the presence of such a stimulus object and (b) that its emission in the absence of the relevant stimulus will be reinforced by the subsequent appearance of that stimulus (p. 136).

The confusion here seems to be in Place's interpretation of the tact. Mainly, he has tried to interpret most of verbal behavior as tacts and that is simply inadequate. The role of the audience is neglected for (a), and in (b) the specific reinforcement of a response is characteristic of the mand, not the tact. However, his failure to include establishing operations as the controlling variables for the mand would certainly result in difficulty in understanding Skinner's use of that concept. Also, as mentioned previously, Place does not incorporate the intraverbal relation or multiple control into his arguments.

THE FAILURE TO ACCOUNT FOR THE STIMULUS CONTROL OF THE LISTENER'S BEHAVIOR

A final issue to be raised in this review is that Place says:

The Listener's Response to the Tact (Skinner, 1957, pp. 86-89)... is the only passage in the whole book specifically devoted to the problem of the control exercised by the verbal operant over the behaviour of the listener (1981b, p. 138).

This is not correct. A careful reading of the book will show that the listener plays a major role in Skinner's analysis. In fact Skinner has devoted a full chapter (chapter 7) and several major sections to the listener (e.g., pp. 33, 154, 159, 161, 268, 275, 321, 357, 365, 390, 438, 440). Also, Skinner's analysis of autoclitic behavior is in terms of its effects on the listener. Skinner has certainly not given the listener the overwhelming emphasis of traditional linguistics, but so much of Skinner's analysis concerns the listener that C. B. Ferster has said the book is really about the listener and that:

Skinner's analysis of verbal behavior very convincingly directs our attention to the complexity of the listener's repertoire to account for the speaker's behavior because speaking is primarily an interpersonal activity reinforced by its influence on the listener (1974, p. 155).

SUMMARY

Place has rejected most theories of language because they are circular due to the emphasis on intensionality. Skinner's analysis avoids problems of intensionality by providing a completely environmental analysis of the contingencies responsible for verbal behavior. By default Place accepts Skinner's analysis as the most valid, but Place is not satisfied with the components of that analysis. Place attempts to describe several problems with the analysis and in future papers will provide an alternative to Skinner's system. The current paper is an attempt to point out that several of Place's dissatisfactions with Skinner's analysis of verbal behavior would be eliminated by a better understanding of Skinner's work.

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