

# The concept of audience and verbal behavior's multiple control

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## Abstract

The Skinnerian analysis of verbal behavior involved the production of a classificatory scheme of the relations between responses and environment that would be its unit of analysis – the verbal operant. From the characterization of the control relation called *audience* by Skinner in *Verbal Behavior* (1957), two primary aspects, necessary to comprehend this concept, were identified: a) the consideration of audience as another verbal operant and b) the consideration of audience as a relation of additional control (conditional stimulation or establishing operation) for other relations – mand, tact, echoic, intraverbal and textual. In both situations, it is intended to enlighten the possible implications that the recognition of the specified relation could mean in terms of conceptual elaboration and the importance to recognize these relations.

**Key-words:** Audience, Verbal behavior, Verbal operant, Conditional Stimulus, Non-verbal discriminative stimulus

In *Verbal Behavior*, published in 1957, Skinner defines *verbal behavior as an operant behavior reinforced by the mediation of a listener especially prepared by a verbal community to act as a mediator* and proposes a *behavioral treatment for the studying of phenomena which are, in an overall way, named language*. This proposal clashes with the treatment given so far by common sense and by professionals in the field (Michael, 1993). We may say that such incongruity lays its roots on the ground frame of Skinner's proposal: verbal behavior is operant behavior and being so, operates on the environment and is affected by the consequences which are produced; thus the knowledge produced in the studies of operant behavior will be the foundation from which verbal behavior will be understood. The detailed proposal presented by Skinner would then comprehend the identification and description of the basic common processes related to all operant behavior and also the identification and description of the verbal behavior

processes (Sério and Andery, 2002).

As in any operant behavior, this proposal's essential characteristic is the unit of analysis. According to Skinner (1957/1992), to analyze verbal behavior it is necessary to have a "unit of behavior composed of a response of identifiable form and functionally related to one or more independent variables. In traditional terms we might say that we need a unit of behavior defined in terms of 'form and meaning'." (p.20). We have as a unit of analysis not an answer, but an operant, and as Skinner points out (1957/1992), the unit of analysis includes at least the relation between a response and some other variable; the variable which is already indicated in the definition of verbal behavior is the effect that behavior has on the environment. Therefore, as a start, we know that unit of analysis is not formal or topographic.

An operant will not be singled out and identified from its response (for example, a certain word), but from the relations estab-

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lished between this response and as we are going to see next, variables that precede and follow it. A unit of analysis therefore characterized “permit us to make a distinction between a *instance* of behavior (...) and a *kind* of behavior (...). The description of an instance of behavior does not require a description of related variables or of a functional relation. The term *operant*, in the other hand, is concerned with the prediction and control of a *kind* of behavior. Although we observe only instances, we are concerned with laws which specify kinds.” (Skinner, 1957/1992, p.20).

The author makes two remarks in this same passage that can be very clearly in regard to the importance of clearing establishing the characteristics of the unit of analysis. The first remark refers to the terminology used. Skinner states that in most cases the terms “operant” and “response” are intertwining, but we can fall back on them in order to make a distinction between class (meaning *response*) and type (mentioning *operant*); he states furthermore that our verbal practice has been to resort on the term *response* to refer to classes and types, but this term doesn’t “easily lead to the meaning” of the term operant. The term *operant* has a wider range: it always involves the relations between forms of responses and environmental variables. Now we reach the second remark. The delimitation of units of analysis does not set aside form specification, but it also does not come only to this: “A formal specification cannot be avoided, since a response can be said to be an instance of an operant only through objective identification. But identification is not enough. As an instance of verbal operant, the response must occur as a function of a certain variable.” (Skinner, 1957/1992, p.21). The description of the established relations between responses and variables from which these are function will allow the formulation of a classifying system in which a response with the same form ( for example, the same word) will be take part in several operands, in any verbal operant. Taking in consideration the treatment given to operant behavior, we can say that the re-

inforcement contingency will be the unit of verbal behavior.

### **The verbal behavior classificatory scheme**

Having established a reinforcement contingency or the operant , as its unit of analysis, Skinner(1957/1992) proposes a classificatory scheme of these relations, considering aspects that specifies and differentiates a certain group of reinforcement contingences from others (which allows reference to types of contingences normally named ‘verbal operant’) and presents several statements in defense of the proposed scheme.

Skinner starts his scheme defense specifying the criteria used to evaluate any frame of reference and therefore the one he is proposing as well. What should a classificatory scheme allow? On the reference frame proposed, what do we reach in separating the several types of relations? According to the author (Skinner, 1957), “the understanding of verbal behavior is something more than the use of a consistent vocabulary with which specific instances may be described.” For him “the extent to which we understand verbal behavior in a ‘causal’ analysis is to be assessed from the extent to which we can predict the occurrence of specific instances and, eventually, from the extent to which we can produce or control such behavior by altering the conditions under which it occurs” (Skinner, 1957/1992, p.3).

To understand what this extension is, maybe it is necessary to refer to the very examples that the author gives when illustrating what he meant by prediction and control. The scheme proposed must allow information production that enables to answer the following questions:

How can the teacher establish specific verbal repertoires which are the principal end-products of of education? How can the therapist uncover latent verbal behavior in a therapeutic interview? How can the writer evoke his own verbal behavior in the act of composition? How can the scientist, mathematician or logician manipulate his verbal behavior in productive thinking? (Skinner, 1957/1992, p.3).

Having set the goals, we move to the characteristics which differentiate the proposed frame.

In first place, the identified different types of contingencies – the different verbal operands – “are useful, first of all, as a mere classificatory scheme, functioning in this sense, somewhat like the classificatory scheme of grammar” (Skinner, 1957/1992, p.186). However, as it has been presented, distinctively from the traditional frame of reference build on the effort of outlying the form of the response, the proposed scheme was built to emphasize relations in which the response is involved: “It is not a classification of a form of response since we cannot tell from form alone, into which class a response falls(...). In order to classify behavior effectively we must know the circumstances under which it is emitted’ (Skinner, 1957/1992, p.186). The identification of these circumstances can not be done merely on the occurrence observation of a specific instance, since such instance is a result of, and acquires meaning from the relations in which is embedded and such relations are identified based on their history. Thereby, in order to appropriately classify a behavior, it is necessary to know the particular history of established relations between the chosen form of response and largest available number of variables that gained control over it, and therefore define its probability.

However, the “classification is not an end in itself” (Skinner, 1957/1992, p.187). The study of verbal behavior does not end with the evidence of relation between a specific form of response and the variables in which it is a function, as to say, with verbal operant identification: “there are other aspects to be treated” (Skinner, 1957/1992, p.187). These other aspects are the very behavioral processes to which any operant behavior is submitted (reinforcement, suppression, motivation and emotion are some to be mentioned); it is about the description of these general processes and the identification of occurring peculiarities they present when applied to verbal behavior. According to Skin-

ner (1957/1992) the likelihood of this task is closely linked to the proposed classificatory scheme: “Such a formulation permits us to apply to verbal behavior concepts and laws which emerge from a more general analysis to verbal behavior.” (p.187). In doing so, we are dealing with verbal behavior's dynamic properties: “we can from now on, go further on verbal operant classification, in which our main interest is similar to semantic theory or grammar, to more complex processes that would be described traditionally as ‘use of language’.” (Skinner, 1957/1992, p.199). We again emphasize that the foundation of this possibility lays on the classificatory scheme proposed: “In recognizing the behavioral nature of the relations (...) we have prepared the ground for these more complicated phenomena and may deal with them with the same principles and laws” (Skinner, 1957/1991, p.199).

Finally, when considering verbal operant as means for verbal behavior analysis, we can overcome some dilemma found when this this analysis is done taking as supportive foundation traditional classifying systems, which emphasizes the form of response.

Examples of this are as follows; the difficulty found in understanding how someone can read a foreign language but not be able to talk in such language, or someone not being able to say the name of a determined object, being in front of it, but being able to ask for it when it is needed. These apparent dilemmas are clarified when we deal with verbal operant and recognize each relation peculiarity, and mostly the need of a specific reinforcement history to generate each one of them.

All that has been said up to this point shows the importance of a full understand of the classificatory scheme foundation and each one of the different contingency groups – identified verbal operant-: where they are singled out and the possible relations among them. This is the scope of this article.

### **The audience in the classificatory scheme for the verbal behavior**

If we follow the chapters presentation on Part II of *Verbal Behavior* (Skinner, 1957/1992), the part where “the topography of verbal behavior in relation to its controlling variables” is presented, (p.11), we may identify, presented on chapters 3 to 6, six contingences types or main verbal operant: mand, echoic textual, transcription and tact. Chapter 7- *The Audience*-brings a problem to the reader: coming as a a sequence of the others and being in the part of the book which would apparently present the classificatory scheme, a question could be raised: was a control relation being presented in this chapter which would characterize another verbal operant?

Chapter 8 - *Verbal Operant as a Unit of Analysis*-closes Part II and is a crucial chapter for the understanding of the concept presented and maintained in the book; its reading supports the question suggested. Skinner (1957/1992) starts chapter 8 with the following statement: “The six types of functional relations in verbal behavior so far indentified may be summarize as follows...” (p.185) and the six relations listed are: mand, echoic, textual, intraverbal, tact and audience. Audience is presented as a specific type of functional relation, and for some reason differentiates itself from relations that typically single out different contingences or verbal operands. Would this be enough to consider this new relation as a verbal operant distinctive from the others? The absence of the operant transcription in this list and the inclusion of *audience* as the sixth relation (and not as a seventh relation, as could be expected if one more operant had been merely included to the list of the six approached on previous chapters), may be one extra intriguing factor to the understanding of the role of audience in the reference frame proposed by Skinner. From chapter 8 extracts, we can reason that the relation described by the concept *audience* is a diverse functional relation, if compared to the relations involved in other operant; but we do not know, at least in this context, if a diverse functional relation would always be in correlation to another di-

verse verbal operant.

The identification of a single verbal operant has as starting point a basic aspect: If the definition of verbal behavior has its ground on the relation between the response and its consequences (**verbal behavior is operant behavior reinforced by the mediation of a listener specially prepared to react as a mediator**), the classification of a verbal operant has its ground on the established relations with the antecedent conditions of a verbal response (it is important to clarify that the expression *antecedent condition* encompasses not only discriminative stimuli as well as operations with motivational functions, commonly known as establishing operations). In other words, once it is stated that verbal operands are distinguished from other operands because of a specific type of consequence produced by the response the distinction and classification of diverse types of verbal operant has its ground on the antecedent stimulation of a verbal response and acquires evocative control over it. In order to characterize a verbal operant as *mand*, the antecedent condition which determines the form of response must be an establishing operation condition. To mark a verbal operant as an echoic, the response should be under the control of by antecedent verbal stimuli and present formal similarity with such stimuli. An operant is marked as *textual* when its vocal response is under the control of antecedent written verbal stimuli, and presents a a correspondence with such.

To characterize an operant as *intraverbal*, the response, (written or vocal) must be under the control of preceding verbal stimuli (written or vocal), not necessarily with perfect correspondence.

Finally, an operant can be characterized as *tact* when the response is under the control of antecedent non-verbal stimuli. Being so, dealing with audience as verbal operant the relation between response and specific preceding conditions should be highlighted, differently form the ones that characterize the other verbal operant.

However, we could reason that the distinction of six diverse functional relations presented initially on chapter 8 of *Verbal Operant* (Skinner, 1957) is based on some antecedent condition specificity which evokes the verbal response.

That being considered, we may have a first big division of the two groups: antecedent conditions with motivational functions (that single out relations called mand) and antecedent conditions with discriminative functions (that single out relations as echoic, textual, tact and audience). This second group may in its turn, be subdivided in two other groups: one of relations which involve discriminative verbal stimuli (echoic, textual and intraverbal) and the group which involves discriminative non-verbal stimuli (tact and audience). Finally, each one of these two groups can also be sub-divided, if we consider just as for verbal stimuli, relation peculiarities between verbal stimuli and verbal response (differing echoic from textual and both from intraverbal) or just for non-verbal stimuli, the type of stimulus (differing tact from audience). Therefore, we may assume that such specificity is not sufficient to characterize a verbal operant

Considering some of articles where Skinner's reference frame (1957) is presented may reinforce this assumption.

For example, we can see in Sunberg & Michael (2001), the following statements:

On Chapters 3 to 7 of *Verbal Behavior*, Skinner (1957) differentiates several different types of verbal operant (see table 1). Beyond audience relation, the following elementary verbal relations are described: mand, tact, echoic (...) intraverbal, textual, transcriptive and text copying (...). These [after specification of relations between verbal response and preceding condition of the mand verbal operant, echoic operant intraverbal, transcriptive and text copying and of tact operant] are the elements from which more elaborated verbal behavior forms are compounded; all of them consist of relations among motivational variables, discriminative stimuli and response type, and they are all developed by means of consequence occurrence due to response contingency. (p.702).

Despite initially appointed as a singular relation, the audience relation is not shown between the specifications of what is named by the authors as "elements", from which "more complex forms of verbal behavior are compounded", and it is also not shown on the authors' designated table named "Technical Definitions of Skinner's (1957) Verbal Operant", that we may understand as elementary verbal operant.

Another example may be found on MacCorquodale (1969) article. When analyzing what is called controlling variables, the author divided them in two big groups: motivational variables and discriminative stimuli. He begins the second group presentation by stating: "A larger part of speech is controlled by discriminative stimuli (Sds). It encompasses generic tact, (...) and also speech involved in reading, echoing, intraverbal answering and certain types of audience." (p.836). And while specifying each one of these, when reference is made to audience, he states: "Audience gains control as Sd whose speech effects are always supplementary, according to the process discussed below." (p.838). He does not leave any doubt on the control type specificity involved in audience relation, and states: "These five types of stimuli control [tact, echoic, intraverbal, textual and audience] and also motivation, constitute all variables proposed by Skinner in order to explain speech emission (...)" (p.838) and further he lists mand, tact, audience and echoic responses, textual and intraverbal as "gross matter for speech" (p.839). We are facing again audience relation specificity and as for MacCorquodale (1969) article, a double specificity: the controlling stimulus type and the evocative effects of such stimuli, which according to the author are always supplementary this is, (if our interpretation<sup>3</sup> is correct), they proceed always along with other variable, but it still is not clear whether such specificities continue to be a distinctive verbal operant.

We will try to detail such audience re-

<sup>3</sup> Considering MacCorquodale article (1969) continuance, it is possible that the author refers to Skinner's (1957) analysis of *multiple causation* of verbal behavior.

lation specificities and how they were built. The verbal episode defined by Skinner usually considers two people: the one whose behavior is our primary interest (the speaker) and the one who has the role of environment (the listener). From verbal behavior definition, we characterize the listener as reinforcement mediator assigning him as environment that follows verbal response emission.

However, as consequence of audience notion, we are aware of the fact that the listener has a dual role- he also can be characterized as environment which precedes verbal response. How come? The clue is in stimuli discriminative process. As a systematic reinforcement mediator the listener becomes an occasion in which, if a response is emitted it produces reinforcement and acquires an evocative function besides its function as generalized conditioned reinforcing stimulus.

The listener is part of the occasion -of the antecedent condition- that controls verbal behavior because it is part of the occasion in which it was reinforced. It is important to highlight at this point the systematic form it is presented in Skinner (1957): when presenting each one of the verbal operant, audience is always among the antecedent conditions related with response emission which constitutes the operant being referred to; for example, in all figures used to describe verbal operant relations (Figures 1,2 and 3, for mand; Figure 4 for echoic; Figures 5 and 6 for audience) audience is shown as the or one of the discriminative stimuli responsible for response emission. It also has to be highlighted that this listener's role is diverse from the position it occupies in these very verbal operant as part of reinforcing events of speaker's response. The characterization of the 'listener' as audience (and not as reinforcement mediator) depends on the speaker's stimulation by the 'listener' before behavior outcome. According to Skinner(1957/1992), "Insofar as the listener stimulates the speaker prior to the emission of verbal behavior, we may speak of him as audience" (p.172). Thus Skinner refers to the term *listener* when the other's participa-

tion in the verbal episode has a consequence function, and refers to the term *audience* when this participation has an evocative function. "An audience, then, is a discriminative stimulus in the presence of which behavior is characteristically reinforced and in the presence of which, therefore, it is characteristically strong" (Skinner,1957/1992,p.172). (according to Michael (sd), we should strictly say that audience is a discriminative stimulus in the presence of which behavior *was* typically reinforced). We have then highlighted with the term audience a relation between antecedent condition and response, a necessary aspect to single out a verbal operant.

*Verbal Behavior's* Chapter 7 reading leads us to this consideration. The term audience, more than highlighting a relation between preceding condition and response, as Skinner (1957/1992) points out , brings out the point that we facing a singular relation, different from and not reduced to the relations described in prior chapters:

In contrast with the discriminative stimuli which control tacts and and echoic, textual and intraverbal operands, an audience is usually a condition for the reinforcement of a large group of responses and therefore comes to affect strength of such group. Different audiences control different subdivisions of the repertoire of the speaker. (This control is always exerted in concert with stimuli determining more specific forms of response (...)) (p.173).

The operant relation described could be characterized as follows: discriminative non-verbal stimuli, usually the presence of other men, mobilizes wide response groups of certain forms; the evocation of a specific form of response within this group would depend on other present variables; these discriminative stimuli would always have their evocative effect together with other evocative variables( we find here the dual specificity identified in MacCorquodale article(1969), with an extra aspect: evocative function is not specific , it does not refer to specific response classes, as in the case of discriminative stimuli in general, but to a wide response group).

In chapter 7 we can find three possible

specification of this wide response group or three possible evocative effects of these discriminative stimuli.

1. The other, as a verbal response preceding condition, determines the occurrence or non occurrence of verbal behavior. Thus, in a general way, verbal behavior ceases in a listener's absence. We can find two exceptions for this rule: (a) when the speaker functions as his own listener, or as to say when he responds to his own verbal behavior, or (b) under extremely strong establishing operation conditions when extended mand occur. According to Skinner (1957/1992), this relation occurs simultaneously with the language selection in which the speaker will emit his response. This larger subdivision of the speaker's verbal behavior - the language- is controlled by the community which establishes the reinforcement contingency.

2. The other as a condition that precedes verbal evokes among possible answers, a group of responses in neglect of other groups. Considering this effect, there are at least two possible alternatives for response available in the speaker's repertoire, both being controlled by the same stimulus; the other's presence mobilizes one of them. Examples of this kind of control are the vocabulary used in certain occasions, technical terms resource and slang.

3. The other as condition that precedes a verbal response evokes certain kind of verbal operant in neglect of others and within one type, what verbal operant shall occur ; for example, facing a certain group of stimuli( or multiple dimension of the same stimuli) which stimulus( or dimension)will exert discriminative control( in the case of verbal operant as tact)or facing the same verbal stimulus, which response, between several others, will be evoked (in case of intraverbal verbal operant).

As it has been pointed out, the other's presence as preceding verbal response condition always function together with at least another variable that specifically determines the response form. For example, a person in front of an art work will emit a verbal response, use

the language and jargon and even the matter on the "art work" under the control of the other's presence, but the specific response form will be determined simultaneously by the art work's physical properties.

While the art work's description is a tact, it will be restricted by discriminative stimulus properties; its verbal behavior in this episode is, however, multi-determined by established antecedent relations with that specific audience.

This interaction along with another variable may identify a different type of functional relation without, however, identifying a new operant.

This aspect of the combined interaction between two stimulus preceding condition (the stimulus itself-as in the example the art work-and the audience), especially the first and second effects distinguished by Skinner (1957/1992), suggests that audience stimulus works as evocative effects modulator of other preceding variables; in other words, audience would have the role of conditional stimulus. In this case, generally it would be constitutive part of contingences that describe such operant, so these contingences should encompass the 'fourth' term. This would be one of the consequences of audience's recognition as a different relation apart from the others, and implies beyond the conceptual demand for including such relation in the identification with other operant, it would imply in verbal repertoire interpretation.

As Pasquinelli(2007) suggests, the very own situations in which such verbal repertoire is described and assessed are themselves, response control source, which should be taken into consideration when planning assessment situations or considering the obtained results; this becomes more important if, considering the author's results, we verify that as we confirm that not only audience controls 'what is said' in the presence of a stimulus, but also with little differential reinforcement in the presence of different audiences, occurs an extension of the audience control to verbal responses emitted in the presence of

novel stimulus.

The possibility of additional source of control recognition within audience relation has support of at least one posterior article from Skinner (1989) in which the distinction between instance and operant receives special attention. In the text "*The listener*", as he was identifying types of verbal operands, Skinner (1989) lists five types: mand, tact, intraverbal, echoic, and textual (not including audience among them).

Moreover, he refers to audience when he mentions behavior instances, which as we saw, differentiate themselves from operant as they do not require, for their description, relation identification between response form and environment variables: "The verbal behavior that we observe and study is composed by instances, in relation to which the listener has his second role as part of an occasion in which the behavior occurs." (Skinner, 1989, p.37)<sup>4</sup>.

Nevertheless the possibility of considering audience as conditional stimulus yet seems not to be well applicable to the second evocative effect described in *Verbal Behavior* (in the cases in which there are at least two response in presence of certain antecedent conditions, and the audience evokes one of them), including at this point something that according to Skinner occurs along with emission determination of a certain verbal response; the language selection in which the speaker will emit the response: in this case, audience stimulus is not modulating the evocative function of antecedent stimuli. On the second case described by Skinner (1957), a present stimulus has evocative function to other response forms, and the presence of a certain audience as antecedent condition directly modulates the response strength ending up to evoke one of them. In the two initially approached

<sup>4</sup> A non systematic enquiry into some manuals that deal with primary concepts for explanatory system of verbal behavior and introduce verbal behavior among the approached topics (for example, Catania, 1999; Donahoe and Palmer, 1994; Ferster, Culbertson and Boren, 1977; Keller and Schoenfeld, 1968; Pear, 2001) calls attention to the diversity of distinguished and emphasized verbal operant presented. There is though one common line: audience relation in general does not appear, and when it does it is not presented as verbal operant

(the first and the third audience evocative effects) audience modulates stimuli functions and in this way indirectly alters the strength of certain responses. In the other case, (in the second evocative effect), it directly modulates response strength; the audience stimulus then, participates of a functional relation different from the prior ones, since it would act directly on the response, raising response probability of a certain form. Thus presenting the characteristics of other verbal operant: a control relation which evokes a specific form of response, if this interpretation is to be correct, so is the term *audience* distinguishing the existence of a singular, independent and whole operant.

The difficulties in bounding control relations inserted in the term *audience* do not end here. Another aspect that is source of difficulty appears when Skinner deals with *negative audience* (pp.178/179). The first meaning of the term does not imply special problems, if we consider the other as a stimulation which evokes verbal responses as result of a history that was part of a occasion in which verbal responses were reinforced. We will not have any difficulty in considering the possibility that responses emitted, although systematically not reinforced in the presence of a certain person, results in 'loss' of evocative characteristics acquired by listeners through generalization that were source of reinforcement. The probability of emission of verbal responses becomes as low in the presence of this person as it would be in the absence of any person.

It is the second meaning of the term *negative audience* that raises special problems. According to Skinner (1957/1992), the listener can punish verbal responses, and in this case he acquires negative audience function. In the presence of such negative audience; a) the speaker can emit few verbal responses (or not even emit them), b) his responses can be of low energy, c) the presence of certain stimuli that would evoke such responses become insufficient to evoke them, or d) the speaker may not present certain verbal operands. If



these effects on verbal responses are originated from a punishment history in the presence of a certain audience, all these effects can be considered as avoidance or escape responses. If this is correct, the evocative function of the other as response antecedent condition is more related to establishing or motivational conditions (here, reflexive conditioned establishing operation<sup>5</sup>) than to discriminative stimuli function, which brings it close to the verbal operant mand. We would have then, three control relations described by the term *audience*: conditional stimulus, modulating other stimuli evocative function, discriminative stimulus, evoking certain response forms and establishing operation.

Two other aspects approached in *Verbal Behavior's* chapter 7 point to the difficulties involved when considering control extension and types of control distinguished in the term *audience*. One of them is addressed by Skinner (1957/1992) as *physical dimensions of an audience*.

According to Skinner, in the case of an audience, physical dimensions of involved stimuli are harder to be identified than stimuli dimensions that constitute other verbal operant. We can identify with certain ease verbal stimuli properties that control echoic responses, textual and intraverbal, as physical properties of objects that control tact; but the same does not happen with audience. First, stimuli generalization makes possible that a large range of stimuli can be effective in evoking audience control characteristics effects: "we speak to strangers, to persons asleep or dead, possibly to clothing-store manikins seen in a dim light, to animals(...)" (Skinner, 1957/1992, p.176). Secondly, a large group of variables modulate the other's presence as verbal response antecedent condition, as though the mere presence or absence of a person is not enough to identify an effective stimulation. Stimulation effectiveness can not be identified from its physical aspects, thus such aspects do not imply in organic hearing possibility of the present person, if the

<sup>5</sup> Since its presentation establishes its own retrieval as reinforcing.

person is paying attention, if speaks the same language, etc. This aspect comprises and tangles if we consider what Skinner (1957/1992) calls "distant audience" (p.177). In third place, other stimuli, non-human can acquire typical audience evocative function. A place where verbal behavior was systematically reinforced can acquire response evocative control.

Verbal behavior itself can become a variable with audience effect as long as first behavior segments evoke subsequent emissions. All of these points out to the difficulty in identifying involved variables no matter what relation control there is.

There is still one more difficulty related to controlling variable identification. As Skinner recognizes (1957/1992), there is a group of difficulties in order to demonstrate that the speaker can fulfill audience function to himself. We should deal with the fact that this possibility already exists as we assume the speaker can be his own listener. It seems that there is no reason for the discriminative process which constitutes an audience function from a listener's role as reinforcement mediator not to occur only because the speaker is the listener himself. The difficulty lays in demonstrating such control: "At first glance we may not seem to be able to demonstrate the effect of such an audience in the usual way - that is, removing or presenting it while observing differences in amount of verbal behavior, repertoire exhibited, special subject matters and so on" (Skinner, 1957/1992, p.180). Therefore, this difficulty can be overcome: according to Skinner (1957/1992) there are conditions in which "the speaker is effectively removed as his own audience" (p.180), the condition named by the author is "automatic writing"; and there are conditions that strongly mark the speaker presence as his own audience, as when the person talks to himself and casual insensibility to other audiences.

Taking all above considerations into account, we have suggested a notion -audience-which is embedded in two types of difficulty: identifying the controlling variable and identifying controlling relations that are

being pointed out. On the second difficulty two possibilities seem to be placed: (1) the audience functions as 'additional' preceding stimulus in a triple contingency that already characterize some primary verbal operant (mand, echoic, textual, transcriptive, intra-verbal, tact); such 'additional' stimulus could function as conditional stimulus or establishing relation; (2) audience operation characterizes an operant, with unit and independence in relation to the other operands already identified, since for stimuli with certain characteristics would directly evoke certain types of responses.

This last possibility apparently places an additional challenge: should we deal with the notion of overlapping operands, that is, one response could be at the same time part of two distinctive operant relations.

These two possibilities identification was based entirely on the notion proposed by Skinner (1957/1992). His analyses regarding the oother's participation in antecedent condition function although not being organized in the way proposed in this work, provided elements for the identification of multiple relations described by the term, such relations are little discussed by behavioral analysts community<sup>6</sup>. The notion of audience presented by Skinner (as his entire proposal for verbal behavior understanding) was not aimed at the depletion of this matter but at presenting a proposal for the studying of verbal behavior, with all challenges that it may encompass, including the consideration of variables that act simultaneously when determining a behavior. Being so, it can be the case of these two possibilities acting simultaneously when determining a certain speaker's verbal behav-

ior: audience, when determining the stimuli group that will have discriminative control over the response and therefore raising verbal response occurrence probability, it would be exerting conditional stimulus or establishing relation function. Simultaneously when determining the form of response (language, jargon) it would exert a control which would be considered typical of a verbal operant.

All of these points to the complexity involved in verbal behavior analyses. Skinner's (1957/1992) persistence in verbal behavior multidetermination was not out of proportion and within this perspective, verbal operant identification is a primary step; ground bases for further studies lay on it. And his delay in defining verbal behavior (only on chapter eight of his book) seems to be justified; when discussing the term audience and its placement in Skinner's proposal, we came back to the "matter critical point": the listener's especial conditioning.

Verbal behavior presents itself as a special study field for this very preparation. Individuals are especially prepared by their community to act as environment, specifically to act as environment that succeeds verbal responses. Their environment function as antecedent to response is gradually acquired from their first function (reinforcing). On chapter's eight closing paragraph of *Verbal Behavior* (Skinner, 1957/1992) is very clear: verbal environment practices (people that respond to certain responses in certain manners because they were prepared by the group which they belong for doing so) "and the resulting interaction of speaker and listener yield the phenomena which are considered here under the rubric of verbal behavior" (p.226)

<sup>6</sup> When enquiring "Verbal Behavior Analyses" Journal on the word "audience" in the title, it was found 1 result (Spradlin, 1985), and with the same word in the abstract, there was no result found.

## Bibliographical References

- Catania, A. C. (1999). *Aprendizagem: comportamento, linguagem e cognição*. Porto Alegre: Artmed.
- Donahoe, J. W. & Palmer, D. C. (1994). *Learning and Complex Behavior*. Boston, MA: Allyn and Bacon.
- Ferster, C. B.; Culbertson, S. & Boren, M. C. P. (1977). *Princípios do Comportamento*. São Paulo: Hucitec.
- Keller, F. S. & Schoenfeld, W. N. (1968). *Princípios de Psicologia*. São Paulo: Herder.
- MacCorquodale, K. (1969). B. F. Skinner's Verbal Behavior: A retrospective appreciation. *Journal of Experimental Analysis of Behavior*, 12, 831-841.
- Michael, J. (n.d.). *Psychology 674: Study Guide for Verbal Behavior*. Versão apostilada.
- Pasquinelli, R. de S. H. (2007). *Um Estudo sobre o Estabelecimento do Controle e da Generalização da Audiência sobre o Comportamento Verbal*. Dissertação de Mestrado, Programa de Pós-graduação em Psicologia Experimental: Análise do Comportamento, Pontifícia Universidade Católica de São Paulo. São Paulo-SP.
- Pear, J. J. (2001). *The Science of Learning*. Philadelphia, PA: Taylor & Francis.
- Sério, T. M. A. P. & Andery, M. A. (2002). Comportamento verbal. In T. M.A. P. Sério; M. A. Andery; P. S. Gioia & N. Micheletto. *Controle de Estímulos e Comportamento Operante – uma (nova) introdução* São Paulo: EDUC.
- Skinner, B. F. (1989). *Recent Issues in the Analysis of Behavior*. Columbus: Merrill.
- Skinner, B. F. (1992). *Verbal Behavior*. Acton MA: Copley. (Trabalho original publicado em 1957).
- Spradlin, J. F. (1985). Studying the Effects of the Audience on Verbal Behavior. *The Analysis of Verbal Behavior*, 3, 5-9.
- Sudberg, M. L. & Michael, J. (2001). The benefits of Skinner's analysis of verbal behavior for children with autism. *Behavior Modification*, 25, 698-724.

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