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### THREE SENSES OF THE WORD "TACT"

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In my paper "Skinner's *Verbal Behavior* II - What is wrong with it" (Place, 1981) I argued that there is an ambiguity within Skinner's (1957) use of the term "tact" between "tacts" as sentences or sentence utterances, which, I suggested, are to be contrasted with "mands" which are likewise either sentences or sentence utterances, and "tacts" as sentence constituents (either words or phrases), which, I suggested, contrast, not with "mands," but with "autoclitics" which are likewise sentence constituents rather than functionally complete utterances or sentences. Some "autoclitics," like Skinner's "descriptive autoclitics" are phrases, but most, as in the case of his "relational," "quantifying" and "manipulative autoclitics," are single words.

On a recent visit to the United States I had the opportunity of discussing this matter with a number of behavioral psychologists with an interest in Skinner's book, including B. F. Skinner himself, Pere Julia, Charles Catania, Ernest and Julie Vargas, Mark Sundberg and Jack Michael. From these discussions it now appears that Skinner uses the term "tact," not, as I previously thought, in two, but in no less than three different senses.

The sense of "tact" which I had not previously detected is the sense in which a "tact" is a verbal operant which may be a word, a part of a word (as in the case of what Skinner calls a "minimal" or "fragmentary tact" - *VB* pp. 122, 250, 332, 347), a descriptive phrase or a complete sentence which is under the active stimulus control of some non-verbal stimulus in the speaker's current stimulus environment. "Tacts" in this sense contrast neither with "mands" nor with "autoclitics," but with "intraverbals," where "an intraverbal" is a verbal operant which may likewise consist in the utterance of a word, part of a word, a phrase or a sentence which is under the active control of the stimuli constituted by the immediately preceding verbal behavior emitted either by the same or by another speaker.

Many of my informants, including Skinner himself, seem firmly convinced that this latter sense is the only sense in which the word "tact" is ever used in the book *Verbal Behavior* (Skinner, 1957). This, I submit, is a mistake.

#### TABULATING OCCURRENCES OF "TACT" IN *VERBAL BEHAVIOR*

It is a sound behaviorist principle, I suggest, to hold that the way an author uses a word, the kinds of sentence in which it occurs, the examples he gives to illustrate his meaning, the things he contrasts it with, are a better guide to its meaning in a particular context than is the author's own subjective assessment.

With this in mind, I decided on my return home to work my way through the text of *Verbal Behavior* from cover to cover, listing every occurrence of the word "tact" I could find, whether used as a noun or as a verb, and classifying each occurrence according to the sense in which that particular occurrence needed to be taken. Where it was not clear to which sense a particular occurrence of the word should be assigned, it was assigned to an appropriate combination of two or all three senses. In this way, a table was constructed listing each occurrence of the word, classified according to the sense or combination of senses involved, giving the page and line reference both for the occurrence of the word and for the sentence or sentences which provide the context for the occurrence and the evidence on which the assessment of its meaning is based. The text of this sentence or sentences is then given in full, followed by a specification of the reasons for assigning a particular occurrence of the word to that sense or for detecting an ambiguity or confusion between more than one sense.

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In presenting the results obtained from this procedure, I shall begin by defining the three different senses in which, on my view, the word "tact" is used in *Verbal Behavior*. Following each definition, I shall set out the various criteria that have been used in assigning a particular occurrence of the word to a particular sense in constructing the table. Each criterion is illustrated by a piece of text containing an occurrence of the word "tact" which has been assigned to the relevant sense by that criterion. Further examples are then given of every combination of senses where there is, in my judgment, equivocation, confusion or simply too little evidence to decide between them. Finally, before proceeding to a discussion of these results, I shall give figures showing the number of occurrences of the word assigned to each sense in those cases where the assignment is unambiguous and to each combination of senses where more than one sense is involved.

### *Sense 1*

Sense 1, in my classification, is the sense of the word "tact" which is acknowledged by Skinner himself. A tact in this sense is a particular behavioral event which occurs on a particular occasion and consists of a verbal utterance (verbal operant emission) on the part of a speaker. It may consist of a word, part of a word, a phrase or a complete sentence. The distinguishing feature of a tact in this sense is that its emission by the speaker *on that occasion* is under the control of a non-verbal discriminative stimulus which the utterance can be said to "name" (in the case of a word) or "describe" (in the case of a phrase or sentence). Tacts in this sense contrast with intraverbals (and to some extent with echoics and textual responses). Intraverbals, like tacts in this sense, are particular utterances which may consist of a part of a word, a word, a phrase or a complete sentence. They differ in that the discriminative stimulus which controls their emission is a verbal stimulus emanating either from another speaker or from an immediately preceding utterance of the same speaker.

In constructing the table, an occurrence of the word "tact," whether as a noun or as a verb, was allocated to Sense 1, if it satisfied one or more of the following criteria:

- (a) A tact is described as a "response to" or as "under the control of" a current (non-verbal) stimulus.

*Example (VB p. 83)*

"The tact emerges as the most important of verbal operants because of the unique control exerted by the prior stimulus."

- (b) An utterance is said "*not* to be a tact" when it is uttered in the absence of the object, event or state of affairs to which it refers.

*Example (VB p. 106)*

"In the standard guessing situation of tossing a coin and asking 'Heads or tails?,' the final position of the coin does not control the guesser's response, and the response is therefore not a tact."

- (c) The example used is of an utterance which names or describes an object, event or state of affairs in the speaker's current stimulus environment.

*Example (VB p. 363 - also Sense 3 by criteria (a) and (c) below)*

"To return to an example discussed in Chapter 5, we might say that the most important result of hearing someone say *Fox*, under circumstances where this is clearly a tact or with autoclitic support *There is a ..., is that the listener now 'knows there is a fox in the neighborhood.'*"

- (d) Tacts are contrasted with intraverbals and/or echoics and textual responses.

*Example (VB pp. 314-5)*

"When we ask 'Did you see it, or did someone tell you?,' we are asking for more information about controlling relations. We are essentially asking, 'Was your response a tact or an echoic or an intraverbal response to the verbal behavior of someone else?'"

## *Sense 2*

A tact in Sense 2 is a sentence-constituent, a part of a word, a word or a descriptive phrase, considered in abstraction from the particular context of utterance. The distinguishing mark of a tact in this sense is that it "names," "describes" or "refers to" an actual or possible feature of the common environment of the verbal community constituted by speakers of the natural language or code to which the word or words in question belong. Tacts in this sense contrast with autoclitics. Autoclitics are likewise sentence constituents, parts of words, words or phrases; but their function is purely intra-sentential. Their job is a matter of combining particles with stems to form words, putting words together to form phrases, phrases together to form simple sentences and clauses, and clauses together to form complex sentences. In terms of the traditional categories of grammar, nouns, verbs, adjectives and adverbs qualify as tacts in this sense; whereas pronouns, prepositions, quantifiers, signs of negation and assertion, and conjunctions are autoclitics (Place, 1983).

In constructing the table, an occurrence of the word "tact" was allocated to Sense 2, if it satisfied one or more of the following criteria:

- (a) Traditional categories of word ("nouns," "names," "terms," etc.) are described as "varieties of tact."

*Example (VB p. 113)*

"A proper noun is a tact in which the response is under the control of a specific person or thing."

- (b) The noun "tact" is combined with adjectives like "extended" (i.e., "extended use of"), "abstract," "common," "proper," etc. which make sense only if "tact" is being used as a substitute for "word," "noun," "name," etc.

*Example (VB p. 113)*

"A 'proper tact' may suffer metaphorical extension (as in *A Daniel come to judgment*);"

- (c) Tacts are treated as units of verbal behavior which make up a sentence or descriptive phrase.

*Example (VB p. 104)*

"In describing an object or person with a set of tacts, there are usually many alternative forms if a given response fails, and the speaker himself may not be able to report that the response was missing from his behavior at the time."

- (d) The example is of a word or descriptive phrase with no indication that a restriction to a particular context of utterance (naming or describing an object or event in the presence of that object or event) is intended.

*Example (VB p. 110 - also qualifies as Sense 2 by criterion [b])*

"But all tacts are pinned down, if they are pinned down at all, *via* the same process. The verbal response chair is as abstract as red."

- (e) "Tact" contrasted with "autoclitic."

*Example (VB p. 451 - also qualifies as Sense 2 by criterion [b])*

"The subtle contingencies of reinforcement arranged by a verbal community easily miscarry: a tact may be extended beyond warrant, an important autoclitic may be omitted, incompatible responses may result from faulty construction."

## *Sense 3*

A tact in Sense 3 is an indicative sentence or statement. It may be an indicative sentence considered simply as a string of words in abstraction from any particular context in which it might be uttered. In this case, no truth value can

be assigned to it; it does not constitute a statement or assertion, as it would if an appropriate context of utterance is specified. There is, however, no requirement (as there is in Sense 1) that the context of utterance be one in which the sentence describes or contains a reference to some feature of the stimulus situation in which it is emitted. The function of a tact in this sense is to act in the interest of the listener by providing information about aspects of the environment which would otherwise be inaccessible. "Tacts" in this sense contrast with "mands" which likewise consist in a sentence or sentence-utterance, typically, a sentence in the imperative or interrogative mood whose function is to direct the behavior of the listener in the interests of the speaker.

In constructing the table an occurrence of the word tact was allocated to Sense 3, if it satisfied one or more of the following criteria:

(a) A "tact" is described as something from which inferences can be drawn.

*Example (VB p. 83 - also qualifies as Sense 3 by criterion [f] below)*

"Roughly speaking, the mand permits the listener to infer something about the condition of the speaker regardless of external circumstances, while the tact permits him to infer something about the circumstances regardless of the condition of the speaker."

(b) A "tact" is described as "pure"/"impure" or as "objective"/"distorted," where "an impure tact" is a sentence or sentence utterance which combines both indicative and imperative features and "a distorted tact" is a false or inaccurate statement.

*Example (VB p. 153)*

"The stimulus control of a tact is especially likely to be distorted when the response is emitted in avoiding or escaping from aversive consequences."

(c) "Tacts" are described as "making something accessible to a listener," "extending the listener's contact with the environment," "providing the listener with a basis for effective action," etc.

*Example (VB p. 85)*

"We come a little closer to the ultimate explanation of behavior in the form of the tact when we examine a case in which the stimulus which the tact specifies is not directly accessible to the listener."

(d) "Tacts" are described as "corresponding to a state of affairs."

*Example (VB p. 151 - also qualifies as Sense 3 by criterion [b] above and criterion [e] below)*

"To the listener who is not hungry or who does not respond by coming to dinner (for example, when the speaker is a chef and the listener the owner of a restaurant), *Dinner is ready!* is characteristically reinforced only when it corresponds to a particular state of affairs. It is then a 'pure' tact."

(e) The example given is an indicative sentence, statement or equivalent (e.g. the word *Doll* emitted in answer to the question *What is that?*- *VB* p. 188) with no indication of a restriction to sentences uttered in the presence of the object or state of affairs referred to.

*Example (VB p. 151 - see under criterion [d] above)*

(f) "tacts" are contrasted with "mands."

*Example (VB p. 83 - see under criterion [a] above)*

#### *Examples of occurrences equivocal between different senses*

*Senses 1 and 2 (VB p. 89 - Sense 1 by criterion [a], Sense 2 by criterion [d])* "The tact *chair* has an advantage over these other types because it appears to "say something" about the object which evokes the response."

*Senses 1 and 3* (VB p. 363 - see under Sense 1 criterion [c] above)

*Senses 2 and 3* (VB p. 119 - Sense 2 by criteria [a], [c] and [d], Sense 3 by criterion [c])

"In learning to speak the child acquires tacts of various sizes: words (*doll*), phrases (*on the table*), and sentences (*Kitty's going to sleep*)."

*Senses 1, 2 and 3* (VB p. 114 - Sense 1 by criterion [d], Sense 2 by criterion [b], Sense 3 by criterion [d])

"The logical classification, as in the case of intraverbal responses and metaphorical tacts, is not directly responsible for relative strength; rather it is a description of environmental states of affairs which are in turn responsible for relative strengths."

*Number of occurrences in each category*

Sense 1 only -	N = 31
Sense 2 only -	N = 71
Sense 3 only -	N = 51
Senses 1 and 2 -	N = 19
Senses 1 and 3 -	N = 40
Senses 2 and 3 -	N = 9
Senses 1, 2 and 3 -	N = 36

## DISCUSSION

Although many of these classifications are necessarily controversial, particularly those where I claim to detect an ambiguity or confusion between more than one sense, on these figures, out of a total of 256 occurrences of the word "tact" in *Verbal Behavior* there are 125 occurrences where an interpretation in terms of Skinner's preferred sense (Sense 1) is *possible*, as against 131 which have to be interpreted in either Sense 2 or Sense 3. In the face of this evidence there can, I suggest, be no doubt that there is a serious ambiguity in Skinner's use of the word "tact" as between these three different senses.

How did this equivocation over the use of the term "tact" arise and what, given that it exists, should be done about it?

In order to understand how the equivocation arose in the first place, we need to recognize that the word "tact" represents Skinner's attempt to deal with the problem of reference, the problem of the relation between the sign and what the sign is a sign of. Skinner discusses this problem, though without introducing the word "tact," in "The operational analysis of psychological terms" (Skinner, 1945). In that paper, as he does later in *Verbal Behavior* (1957), Skinner quite rightly draws attention to the inadequacy of the traditional behaviorist account of the way a sign signifies or refers to the event or state of affairs it is a sign of in terms of the principle of stimulus substitution. He also quite rightly sees his own account of discrimination learning (Skinner, 1938) as providing the key to this problem. Unfortunately he makes the mistake of supposing that reference consists in the control exercised by the object referred to, in its capacity as discriminative stimulus with respect to the verbal response of naming the object in question when stimulated by it.

Now it is perfectly true that learning to name objects and describe situations with which one is currently confronted is an important and perhaps essential part of learning to use the words and expressions in question to refer to such objects and situations; but to suppose, as he does, that a speaker can only be said to refer to an object or situation in so far as that object or situation is part of his or her current stimulus environment exposes Skinner's account of reference in general and of the reference of proper names in particular to the devastating objection raised by Chomsky in his Review (Chomsky, 1959) when he says (p. 32):

A proper noun is held [by Skinner, 1957, p. 113] to be a response 'under the control of a specific person or thing' (as controlling stimulus). I have often used the words *Eisenhower* and *Moscow*, which I presume are proper nouns if anything is, but have never been stimulated by the corresponding objects.

What Skinner fails to appreciate is that there is just no way in which an account of reference in terms of the control exercised over the verbal behavior of the speaker by discriminative stimuli emanating from the object or situation referred to could conceivably account for the speaker's ability to refer the listener to objects and situations that are not only absent from their current stimulus environments, but have never been and, in the case of purely mythical or fictional objects and situations, will never be part of the stimulus environment of either of them.

What is needed to account for *that* is not an account of the control exercised over the behavior of the speaker by non-verbal discriminative stimuli emanating from the object or situation referred to, but an account of the control exercised over the verbal and non-verbal behavior of the listener by discriminative stimuli provided by the verbal behavior of the speaker. Referring is not, as Skinner supposes, a two term relation between a speaker and the object or situation referred to, it is a three term relation whereby the speaker refers the object or situation in question to the attention of a listener.<sup>1</sup> In this relationship, moreover, the position occupied by the referent is not that of discriminative stimulus with respect to the speaker's verbal behavior, its role is rather that of reinforcer with respect to the attending or searching behavior which the speaker's verbal behavior elicits from the listener. This is illustrated by Russell's example of the exclamation *Fox!*, discussed by Skinner (*VB* pp. 87-88), where seeing a fox is both discriminative stimulus with respect to the emission of the utterance by the speaker, as Skinner's account requires, and reinforcer with respect to the behavior of the listener in looking in the direction indicated by the speaker.

That it is its role as reinforcer with respect to the behavior of the listener, rather than its role as discriminative stimulus with respect to the verbal behavior of the speaker, which makes the fox the referent of the utterance in this case can be shown by considering the sentence pair *Look in the cupboard. You will find a pair of scissors.* In this case, unlike the case of the sentence pair *Look! There's a fox!*, the speaker is not under the stimulus control of the object (the pair of scissors) referred to in the second sentence, whereas seeing the scissors on opening the door *does* act as a reinforcer of the listener's behavior in precisely the same way that seeing the fox acts as a reinforcer for the listener's behavior in looking in the direction indicated by the speaker in the case of *Look! There's a fox!*

It is true that not all objects and situations referred to in or by sentences are capable of acting in *propria persona* as reinforcers of the behavior elicited from the listener by the utterance of the sentence in the way that seeing the fox and the pair of scissors do in these examples. We frequently refer both to objects like the mountains on the moon that few of us will ever encounter in real life, objects like the Colossus of Rhodes which no longer exists and mythical objects like unicorns that never have existed. In such cases what reinforces the listener's attending or searching behavior is some representation of the object in question which may take the form of an actor playing the part, a photograph, drawing, painting, sculpture, tape or disc recording, musical composition or verbal description rather than stimuli emanating directly from the object itself.

This, it may be objected, begs the question at issue. For we now have to explain what it means to say that these various representations "represent," "stand for" or "refer to" the objects they represent. But whatever the final answer to *that* question, it must surely lie in the effect of the representation in its capacity as a discriminative stimulus on the behavior of those who look at and/or listen to it. It cannot lie in the control exercised by the subject or model that is used for this purpose over the behavior of the actor, photographer, artist, musician, writer or speaker when he or she creates the representation in question. One has only to think of the artist who uses his wife and child as a model for a painting of the Madonna and Child to appreciate the difference between the model which controls the creation of the representation and what the representation is intended to represent.

Despite these objections, Skinner takes it for granted in developing his account of the "Tact" (*VB* Ch. 5, pp. 81-146) that his account of reference in terms of the stimulus control exercised by the object or situation referred to over the behavior of the speaker in making reference to it in its presence is either adequate as it stands or, if not, can be readily made so by means of some unspecified ancillary assumptions. It is this wholly unjustified confidence in his account of reference, I suggest, which leads him to extend his usage of the term "tact," from its primary sense in which it refers to verbal behavior emitted by a speaker which is under the control of a non-verbal stimulus object, so as to embrace "tacts" in the sense of words and phrases referring to recurrent features of the common stimulus environment of the verbal community and "tacts" in the sense of complete sentences which serve to "specify" events and states of affairs which constitute antecedents and consequences of behavior lying beyond the control of both speaker and listener.

Unfortunately, having once extended his use of the term "tact" in these ways, "tacts" in these other two senses have become too deeply embedded in his account of verbal behavior for Skinner to be able to retract these extended uses of the term and confine its use, as he would clearly wish to do, to the primary sense in which "a tact" is a verbal operant under the control of a non-verbal stimulus. This is particularly true in the case of the sense of the word "tact" where it refers to a sentence or sentence utterance which provides the listener with information about aspects of contingencies beyond the control of both speaker and listener. The reason for this is that "mands" as the verbal operants whose emission by the speaker is reinforced by the behavior they specify and thus elicit from the listener, must be either complete sentences or else utterances which are taken by the listener as equivalent to complete sentences. Consequently we can only make sense of the contrast that Skinner repeatedly draws between "mands" and "tacts" if and in so far as they too are complete sentences or sentence equivalents.

The sense of the term "tact" in which it refers to a word or phrase which "denotes" or "refers to" either a particular individual, as in the case of a proper name, or to a kind of thing which recurs as a feature of the common stimulus environment of speaker and listener, as in the case of a common noun, verb, adjective or adverb, is less firmly entrenched in Skinner's usage than are "tacts" in the sense of sentences or sentence utterances. Nevertheless, although Skinner never explicitly draws a contrast between "tacts" and "autoclitics," the contrast among constituents of sentences between "tact words" and "tact phrases" which establish reference to recurrent features of the environment and "autoclitic words" and "autoclitic phrases" whose function is purely intra-sentential is implicit in the contrast that he draws (*VB* pp. 332-3) between two functions of the final *-s* in *runs* in the sentence *The boy runs* whereby it functions as a "minimal tact" in so far as it is "under the control of" features of the situation such as running being an activity, that it is only the one person who is running and that the running is concurrent with the moment of utterance and "as a relational autoclitic in its agreement with the form of the verb." It is also implicit in the contrast he draws (*VB* p. 363) between "hearing someone say *Fox* under circumstances where this is clearly a tact" and the sentence *There is a fox* which combines the tact *fox* "with the autoclitic support *There is a ....*"

Both these uses of the term "tact," "tacts" as sentences or sentence utterances contrasting with "mands" and "tacts" as words or phrases contrasting with "autoclitics," seem to me to pick out important features of verbal behavior for which a term is needed. In both cases, it seems to me, the distinction which Skinner has drawn is a major contribution to linguistic theory for which there is no convenient alternative formulation available. Admittedly, there is a close correspondence between Skinner's "mand"/"tact" distinction and the traditional logical and grammatical distinction between sentences with imperative or interrogative force on the one hand and those with indicative or assertoric force on the other; but the syntactic distinction between the imperative and interrogative disguises both their similarity, in that they both serve to direct the behavior of the listener in the interests of the speaker, and the contrast, which Skinner's distinction brings out, between that function and that of the typical indicative sentence which acts in the interests of the listener by supplying information which would not otherwise be accessible. Likewise distinctions are sometimes drawn by logicians between predicate or concept words and expressions on the one hand and logical words and expressions on other and between the content of a sentence on the one hand and its logical form on the other. As I have suggested in a recent article (Place, 1983), there is an intimate connection between both these distinctions and Skinner's distinction between tacts and autoclitics; but again the functional dimension which Skinner's terminology emphasizes is lacking from the logician's treatment of the matter. The function of the logical or autoclitic words in giving form and structure to phrases and sentences is not as clear, so it seems to me, in the treatment of the logicians as it becomes in the light of Skinner's distinction.

In both cases, moreover, the word "tact" is appropriate in so far as both tacts as sentences and tacts as words and phrases may be said to "make contact with the physical world" (*VB* p. 81), "tacts" as sentences in so far as they provide information about aspects of contingencies which are beyond the control of both speaker and listener and "tacts" as words or phrases in so far as they "denote" or "refer to" features of the physical environment, both the particular features to which proper names are attached and the kinds of feature identified by what Skinner calls "common tacts."

On the other hand, from the standpoint of the analysis of linguistic competence, once this has been developed, I can see little point in retaining the use of the noun "tact" and the verb "to tact" where these terms are confined to cases in which the emission of a verbal operant, which may be a word, a phrase, or a complete sentence, is under the control of a non-verbal discriminative stimulus, and which contrasts with the "intraverbal" where the control is by a preceding verbal stimulus.

I find this use of the term unhelpful for two reasons. In the first place it ignores the all-important distinction between words, phrases and sentences and hence the important difference between, for example, describing an inexperienced person as "green," because one happens to be looking at a green expanse of lawn, and the uttering of an observation sentence about the weather, as a way of greeting another person, both of which would qualify as "tacts" in

this sense. Secondly, by emphasizing the stimulus control of verbal behavior emitted by the speaker it diverts attention away from the listener's response, both in its capacity as a controlling consequence with respect to the speaker's verbal behavior and as verbal or verbally controlled behavior in its own right. It is precisely these two features, the failure to draw an effective distinction between words and sentences and the lack of an adequate account of the control exercised by verbal stimuli over the behavior of the listener which I identified in the second of my papers on Skinner's book (Place, 1981) as the two fundamental defects of Skinner's account, which combine to prevent him from explaining what I take to be the most important difference between human language and other forms of communication between living organisms, namely, the human speaker's ability to construct novel sentences, both in the form of "mands" which can evoke behavior from the listener which he or she has never emitted before and in the form of "tact sentences" or statements which can provide the listener with information about contingencies which he or she has never encountered before.

It must be said in defence of this usage of the word "tact" that it fits in with a number of other categories of verbal operant distinguished by Skinner in *Verbal Behavior* which are likewise defined in terms of the way their emission is controlled by antecedent stimuli. Thus, beside "the tact" and "the intraverbal," controlled by non-verbal and verbal stimuli respectively, we have "the echoic" in which the sound of the response repeats that of its stimulus and "textual behavior" in which verbal behavior is under the control of a written or printed text. To my mind this classification of verbal operants in terms of the relation of the response to its controlling stimulus is not a satisfactory basis for a scientific taxonomy which is how Skinner is inclined to present it. Because of the operation of the principle of Multiple Causation (*VB* Ch. 9, pp. 227-252), this way of classifying verbal operants offends against the principle whereby the categories in such a taxonomy should be so constructed as to be mutually exclusive. What is classified as an A cannot also be a B and *vice versa*. Yet, because of the operation of multiple causation, there is nothing to prevent the same behavioral event from being simultaneously an intraverbal, a tact (in Sense 1), an echoic and even a textual response.<sup>2</sup> While this objection is fatal, in my view, to any general taxonomy of verbal operants based on categories defined in terms of the manner of their stimulus control, there is reason to think that an analysis of the different ways in which discriminative stimuli can control the emission of verbal operants of various "sizes" (to use Skinner's term) is a legitimate and important aspect of the analysis of verbal behavior, particularly when it comes to an analysis of the processes whereby verbal skills are acquired in the first place. I am thinking, in particular, of "echoic" behavior which is clearly important in the initial elicitation of vocal behavior from the child so that its emission under the appropriate circumstances can be subsequently reinforced, and of the practice of "tacting" or naming an object when confronted, either by the bearer of a proper name, or by an instance of the kind denoted by a general term. Clearly, the reinforcement of the naming response under such circumstances forms an important part of learning the "meaning" of the word in question.

Another area, beside the study of the initial acquisition of verbal skills, where we need to study the ability to "tact," in the sense of putting a name to a current stimulus object, along with the ability to deploy the other categories of verbal operant defined in terms of their controlling stimuli, the "intraverbal," the "echoic" and the "textual," is in pathological conditions, like aphasia, in which normal patterns of linguistic competence are disrupted. Skinner (*VB* pp. 218-9) has some interesting observations along these lines.

## CONCLUSIONS

If in the light of these considerations we decide that we need to retain the word "tact" in all three senses, we are then faced with the problem of how to distinguish between them. What is needed is an agreed convention which will make it clear which of the three senses is being used on each occasion.

Perhaps the least controversial convention to adopt would be to use the noun "tact" and the verb "to tact" without embellishment in the sense which Skinner himself prefers, that is as a verbal operant, under the control of a non-verbal stimulus. We can then use the noun phrases "tact word" and "tact phrase" to cover words and phrases which stand for recurrent features of the common stimulus environment of the verbal community, in contrast to "autoclitic words" and "autoclitic phrases" or "semi-autoclitic words" and "phrases" whose function is either exclusively or predominantly intra-sentential. Likewise we can use the noun-phrase "tact sentence" to denote sentences or sentence utterances which provide the listener with information about aspects of contingencies beyond the control of both speaker and listener, and which contrast with "mands," i.e., sentences whose function is to specify behavior on the part of the listener whose reinforcement is under the control of the speaker.

However, in the third of my papers on Skinner's book (Place 1982), I argued that the contrast between "mands" and "tacts," in the sense of sentences or sentence utterances, can be drawn in three different and only partly overlapping



ways, depending on whether the criteria employed are syntactic, semantic or pragmatic. I also suggested using the prefixes "syn-", "sem-" and "prag-" combined with "-mand" or "-tact" in order to make clear which set of criteria are being employed in a given instance. Since no corresponding distinction applies in the case of the other two senses of "tact," there is no need to add the word "sentence" or the words "sentence utterance" when speaking of "syntacts," "sem-tacts" or "prag-tacts."

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1. Strictly speaking this is not a three term relation. For, as Brentano (1911/1973) points out, you cannot have a relation between two (or more) things one of which does not or need not exist. The non-existent element here, as in other cases, is the so-called "intentional object" - the object to which the speaker refers and to which the attention of the listener is drawn. What happens in such cases is that a relational predicate involving a non-existent object is used as a device for characterizing a dispositional property - in this case a dispositional property of the listener whereby his or her behavior is orientated towards the appearance of an object or event which has not yet and may never actually occur. The only genuine relation in this case is a two term causal relation between the verbal behavior of the speaker and the resulting dispositional orientation of the listener's subsequent verbal and non-verbal behavior.

2. For a more extensive treatment of this point using the sentence *But me no buts!* as an example, see Place (1985).