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*Conversation Analysis and the Empirical Study of Verbal Behaviour.*

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B. F. Skinner's book *Verbal Behavior* (1957) has the remarkable distinction, if that is the right word for it, of being better known as the subject of a devastating review by Noam Chomsky (1959) than it is in its own right. Yet what concerns the experimental behaviour analyst who values Skinner's contribution in other areas of research for its robust no nonsense empiricism is not so much Chomsky's criticisms as the fact that in *Verbal Behavior* Skinner relies exclusively on the traditional literary device of artificially constructed examples, interspersed with the occasional anecdote, without any systematically collected empirical data to support the conclusions reached. The book contains no suggestions as to any programme of empirical research which might develop out of it. Nor has any significant programme of such research been generated over the quarter of a century that has elapsed since the book was first published.

In my opinion the reason why *Verbal Behavior* has failed to generate an ongoing programme of empirical research is not, as Chomsky would have us believe, because no behaviourist theory of language can hope to succeed. On the contrary, as I argued in my paper '[Skinner's Verbal Behavior I - why we need it](#)' (Place 1981a), only a behaviourist theory of language can hope to avoid the vicious circularity of explaining the child's acquisition of linguistic skills on the assumption that it already possesses those skills whose acquisition the explanation purports *inter alia* to explain. As I see it, the real reason for the failure of Skinner's book to generate a significant ongoing programme of empirical research is to be found in the defects in the conceptual framework which Skinner employs in *Verbal Behavior* to which I drew attention in my paper '[Skinner's Verbal Behavior II - what is wrong with it](#)' (Place 1981b). In particular it is a consequence of his failure to draw a firm distinction between sentences and the words and phrases of which they are composed. What Skinner fails to appreciate is that a well-formed sentence, something that is seldom repeated word for word, is what is required in order to evoke a determinate response from a standard listener. Moreover, words and phrases which *are* repeated can only produce a determinate effect on the behaviour of a listener in so far as they contribute to the meaning of the sentence of which they form part.

Without a clear notion of the different roles of words, phrases and sentences in verbal behaviour, Skinner is unable to appreciate the significance of the point, on which Chomsky has repeatedly insisted, that sentences are constructed anew on each occasion of utterance and that this enables the speaker to do things which no other kind of behaviour has the power to do, namely,

- (a) to evoke from the listener behaviour of a kind he or she has never previously emitted and
- (b) to provide the listener with information about contingencies of a kind which he or she has never previously encountered.

Besides the lack of a firm distinction between words, phrases and sentences and the consequent failure to provide an adequate account of the effect of verbal stimuli on the behaviour of the listener, the failure of *Verbal Behavior* to generate a significant programme of empirical research must also be attributed, in my opinion, to the adoption of a taxonomy of verbal operants consisting of the categories of 'echoic', 'textual response', 'intraverbal' and 'tact', where 'a tact' is defined as a verbal operant under the control of a non-verbal stimulus, in which the constituent categories are defined in terms of their relationship to a controlling antecedent stimulus, in the case of 'the intraverbal', regardless of whether that (verbal) stimulus is provided by

- (1) a previous utterance by another speaker,
- (2) a previous sentence uttered by the same speaker or
- (3) a previous word or phrase uttered by the same speaker.

These categories may have a limited utility in analysing the process by which the child learns to select the right word and construct the appropriate sentence on the relevant occasion, but, in order to analyse effective verbal communication between verbally competent adults and older children, what is needed, in my view, is a taxonomy in which verbal operants are classified according to their characteristic effect on the behaviour of the listener.

However, it so happens that there is one type of verbal operant distinguished by Skinner which is not only defined in terms of its characteristic effect on the behaviour of the listener, but, because only a well-formed sentence can be relied to produce such an effect on the listener's behaviour, has to be interpreted as the utterance of a sentence. This is the kind of sentence which Skinner calls "a mand". In Chapter 3 of *Verbal Behavior* "a mand" is defined as a verbal operant whose emission by the speaker is reinforced by the listener's response in emitting the behaviour specified in the first speaker's mand which will normally consist in a verbal reply, where the mand is interrogative, and in either non-verbal behaviour or verbal behaviour directed at a third party, where the mand is imperative. But since the listener's response cannot be relied upon, unless that too is reinforced, it follows that the mand needs to be defined in terms of its position within a three part verbal transaction consisting of

- (1) the first speaker's mand,
- (2) the listener's response and
- (3) the first speaker's reinforcement of the listener's response.

In line with this analysis, Skinner (1957 pp. 38-39) presents three examples of such three part verbal transactions in diagrammatic form. I have reproduced these three diagrams [in an Appendix at the end of this paper] with a fourth diagram which comes from a later and much less successful chapter (Chapter 5) on "the tact".<sup>1</sup> As you will see, all the examples are of imaginary verbal transactions specially constructed for the purpose of illustration. In the first two examples [...], the mand is an imperative which specifies and is reinforced by a non-verbal response on the part of the listener. The difference between them is that in the first case the speaker's subsequent reinforcement of the listener's response consists in a verbal expression of gratitude, whereas in the second case reinforcement of the listener's response in standing aside consists in the removal of the threat of impending verbal punishment indicated by the speaker's frown. There is also the difference that the first case is a four turn sequence with the listener's *You're welcome* acting as a reinforcer of the first speaker's *Thank you* which in its turn reinforces the listener's behaviour in passing the bread.

In the third example [not reproduced in the Appendix] the mand is an interrogative which specifies and is reinforced by a verbal reply on the part of the listener which, as in the first case, is in turn reinforced by an expression of gratitude. The fourth diagram [the third in the Appendix] which comes from Chapter 5 (Skinner 1957 p. 84) presents what is only a segment of an altogether more complicated verbal transaction involving three speakers, the caller at the other end of the line to whose initial mand the second speaker's *Telephone for you* is a response while the reinforcement of this response is supplied by the listener to whom it is addressed rather than, as in the other cases, by the speaker who emitted the mand to which it is a response. In terms of Conversation Analysis, this episode is an example of what is called "a pre-sequence" (Levinson 1983 pp. 345-364) relative to the subsequent telephone conversation. In this connection I shall not bore you with a discussion of the thorny problem of how to classify the utterance *Telephone for you* here in terms of Skinner's taxonomy of verbal operants. Nor shall I discuss my reasons for excluding the other example of a verbal transaction which Skinner (1957 p. 84) presents in diagram form in his Chapter on "the tact", except to say that that it is an example of a language teaching situation, rather than an example of the functional use of language.

Although, as we have seen, these examples are invented rather than observed, it turns out that they are by no means atypical of the naturally occurring conversational exchanges which have been laboriously recorded and transcribed by sociologists in the ethnomethodological tradition as part of a rapidly expanding research programme in what is known as "Conversation Analysis" (Heritage 1984) which stems from the work of the late Harvey Sacks and his two principal collaborators, E. A. Schegloff and Gail Jefferson.

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<sup>1</sup> Editor: Only the first two diagrams from chapter 3 are reproduced in the Appendix.

Although this work has been conceived in terms of a very different conceptual framework from that of Skinner, the insistence of Conversational Analysts on recording as far as possible every aspect of the verbal and non-verbal behaviour of the participants in such conversational exchanges with a minimum of interpretation means that it is not difficult to reinterpret the observations in the light of the principles of Behaviour Analysis.

As described in terms of the concepts of Conversation Analysis, the verbal transactions, used by Skinner to illustrate his concept of "the mand", are examples of "three turn sequences" consisting of what Schegloff (1968) has called "an adjacency pair" (the first speaker's mand and the listener's response to it) followed by "an action" (the first speaker's reinforcement of the listener's response) which is of a type which has long been familiar to Conversation Analysts. Thus Jefferson (1980) notes the introduction by Harvey Sacks in the course of his Spring 1971 Lectures of the notion of "a continuer" which is an utterance like "*Yeah, Right, Uh huh, Mm hmm, Oh, etc.*" whose emission by the listener has the function of maintaining (and hence reinforcing) an ongoing pattern of verbal behaviour on the part of the speaker. Subsequently Sacks' concept of "a continuer" has been subsumed under the broader concept of "a response token" (Schegloff 1982) which embraces any brief utterance or gesture on the part of a listener which acknowledges a preceding verbal or non-verbal action on the part of another participant.

The notion of "adjacency pair" is evidently a broader notion than Skinner's notion of the mand and the reinforcing response which it specifies from the listener, since it includes, besides question-answer and request-compliance, such pairs as "greeting-greeting, offer-acceptance and apology-minimalisation" (Levinson 1983 p. 303). What Skinner's analysis draws our attention to is that, except in the case of greeting-greeting which can often stand on its own as an isolated two turn sequence, the adjacency pair in all these examples forms part of a larger sequence of socially prescribed turns. In the case of the mand-initiated sequences he illustrates, social convention requires a subsequent third turn in which the first speaker supplies reinforcement in the form of the appropriate token for the listener's response, even if the token consists of nothing more than the lifting of a frown. Likewise offer-acceptance presupposes a four turn sequence consisting of

- (1) the first speaker's offer,
- (2) the listener's acceptance of the offer,
- (3) the first speaker's performance of the task specified in the offer and
- (4) the listener's reinforcement of that behaviour by means of an appropriate expression of gratitude.

In the case of apology-minimalisation, by contrast, what is presupposed is some antecedent behaviour on the part of the person apologising which is liable to cause inconvenience or distress on the part of the person to whom the apology is made who may or may not have protested at its occurrence.

Like that of the "adjacency pair", the concept of "a response token" has a broader extension than that of its Skinnerian counterpart, the concept of a "reinforcer". This is seen when we consider what happens if, instead of nodding his head and uttering a continuer like *Uh huh* or *Mm hmm*, a listener responds to each sentence the speaker utters by shaking his head and uttering such "objects" as *No, Nonsense, Rubbish, etc.* The effect of these response tokens would be to weaken, rather than strengthen, the speaker's propensity to utter similar sentences on similar occasions in the future. In other words, to use the term suggested by Harzem and Miles (1978), such tokens act as "disinforcers" rather than reinforcers of the verbal behaviour on which they are contingent. Sacks' notion of "a continuer", on the other hand has a narrower extension than that of "a reinforcer", since it only includes reinforcers which maintain on-going verbal behaviour and would exclude reinforcers like *Thank you* which mark the successful completion of "a turn" by the person addressed.

The recognition that continuers and other varieties of response token act as reinforcers of verbal and/or verbally controlled behaviour has, I believe, some important consequences both within Behaviour Analysis in so far as the empirical data on the use of response tokens throws a flood of light on the role of reinforcement in maintaining effective verbal communication both within and between occasions and within Conversation Analysis in so far as it helps us to explain empirical phenomena like "preference organisation" (Sacks 1973) which are not, in my view, satisfactorily explained in terms of social convention alone. Unfortunately time does not permit me to develop either of these two fascinating themes; although I shall

be glad to do so, if required, in discussion. In the meanwhile, I hope that what I have said will be enough to give at least some plausibility to the claim that, despite differences in the conceptual framework on which it is based, the rapidly expanding research programme in Conversation Analysis (Heritage 1984) can be viewed as supplying the programme of empirical research into verbal behaviour which is missing from Skinner's book of that name.

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From chapter 3 - The Mand

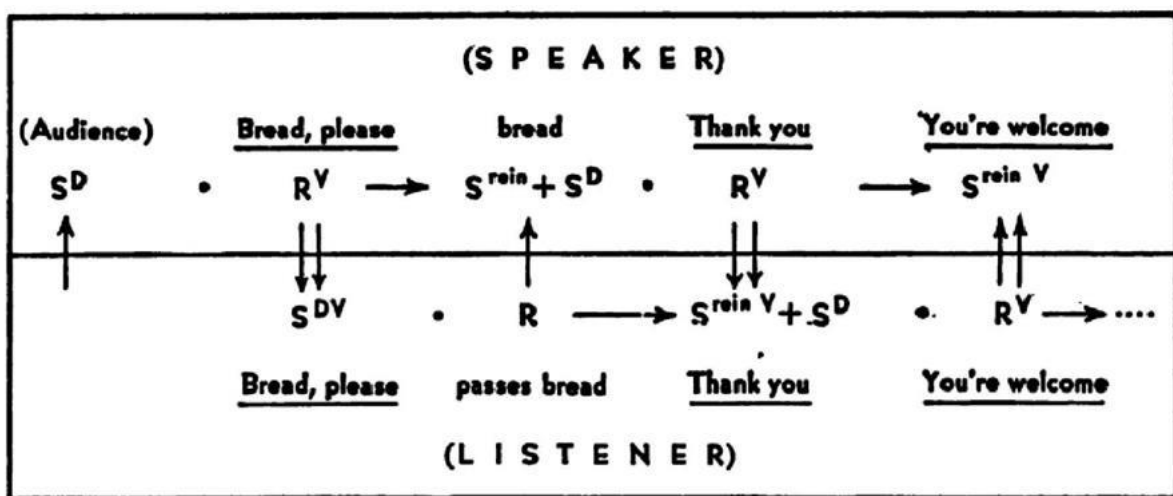


FIGURE 1

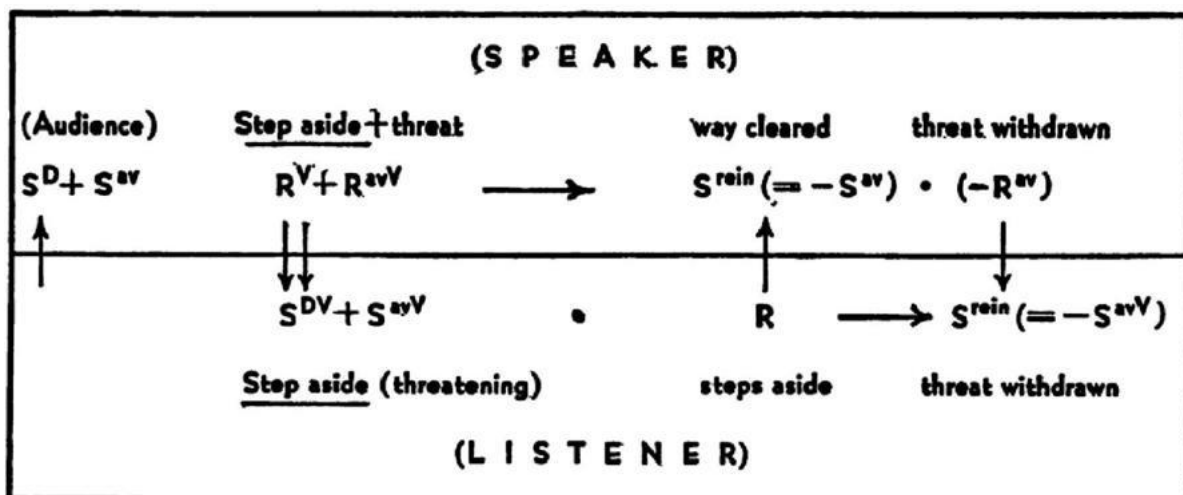


FIGURE 2

From chapter 5 - The Tact

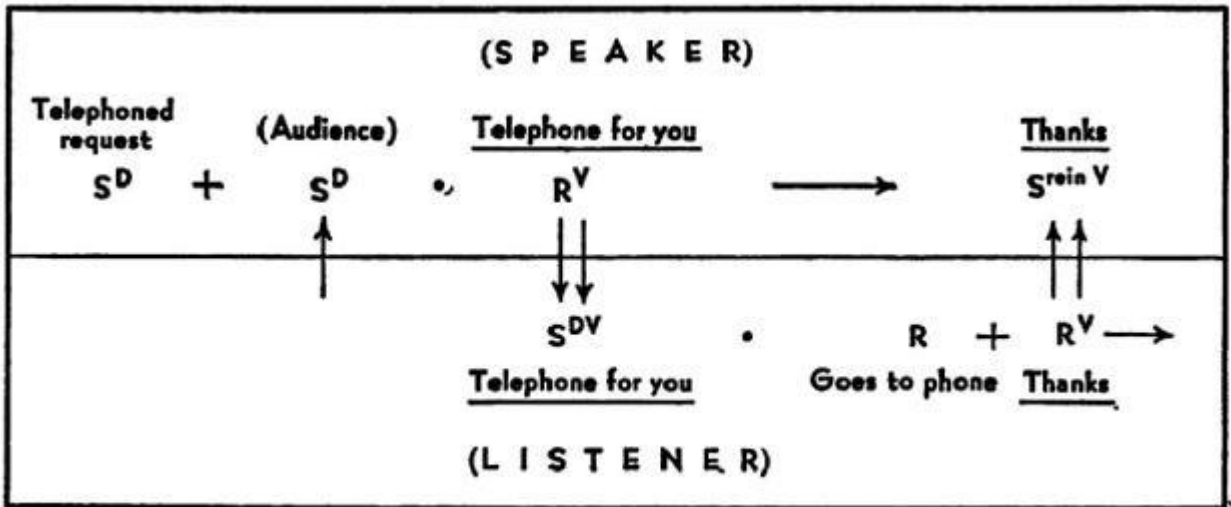


FIGURE 6