

An Introduction to the
Elementary Verbal Operant Relations
in the *Verbal Behavior Analysis*
Component of Behaviorology
Plus Some Initial Implications and Applications
for Foreign Language Teaching

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Background—Part I

Most of this presentation describes the elementary verbal relations that were originally covered by B. F. Skinner in his book *Verbal Behavior* (republished in 1992 by the B. F. Skinner Foundation at www.bfskinner.org). We will also examine examples of these relations, and touch on the research that has validated the reality of this analysis, before considering some early implications and applications of this analysis that concern foreign language teaching.

We will not have time to discuss the relevance of the analysis to native language acquisition, or to teaching language to those who have little or none, for example, autistic children. You should consult *The Analysis of Verbal Behavior* for resources that cover those topics.

Background—Part 2

Also, we will not have time to discuss the many theoretical and philosophical implications of verbal behavior analysis. Why? Because our purpose here today is to generate a minimal repertoire on your part about the analysis, so that you can talk more effectively about it.

Skinner began considering the complex human behavior of language from the natural science, behaviorological perspective early in his career. He worked on the basics for over a decade, and that work culminated in the publication his book *Verbal Behavior*.

Noam Chomsky wrote a highly critical review of Skinner's book which some, especially those who had not read Skinner's book, felt had discredited Skinner's work. But those who did read the book held that Chomsky had simply missed the point. Here are the relevant references:

Background—Part 3 [relevant references]

Chomsky, N. (1959). A Review of B.F. Skinner's *Verbal Behavior*. *Language*, 35, 26–58.

MacCorquodale, K. (1970). On Chomsky's Review of Skinner's *Verbal Behavior*. *Journal of the Experimental Analysis of Behavior*, 13, 83–99.

Ledoux, S. F. (2014). *Running Out of Time—Introducing Behaviorology to Help Solve Global Problems*. Ottawa, Canada: BehaveTech Publishing.

Peterson, N. & Ledoux, S. F. (2014). *An Introduction to Verbal Behavior—Second Edition*. Canton, NY: ABCs.

Also, check the journal, *The Analysis of Verbal Behavior*, and www.behaviorology.org for more information, references, and coursework options.

Background—Part 4

Skinner's goal was to provide a *functional* analysis, in behavioral terms, of the topics that traditional language scholars covered. Here is how he told it (quote from pp. 456–457 of *Verbal Behavior*):

In 1934, while dining at the Harvard Society of Fellows, I found myself seated next to Professor Alfred North Whitehead. We dropped into a discussion of behaviorism... and I began to set forth the principle arguments... with enthusiasm. Professor Whitehead was equally in earnest—not in defending his own position, but in trying to understand what I was saying and (I suppose) to discover how I could possibly bring myself to say it. Eventually we took the following stand. He agreed that science might be successful in accounting for human behavior provided one made an exception of *verbal* behavior. Here, he insisted, something else must be at work. He brought the discussion to a close with a friendly challenge: “Let me see you,” he said, “account for my behavior as I sit here saying, ‘No black scorpion is falling upon this table’.” The next morning I drew up the outline of the present study. [The solution of the challenge runs several more pages...]

Background—Part 5

Skinner's conceptual tools included the fundamental principles of behavior that have been discovered and applied in experimental research with humans and other animals. (People have usually mastered these principles, and at least their general applications, before beginning to study verbal behavior analysis.) Right now, a quick listing of some of the principles will have to be enough, even though it is not enough (that is where the value of coursework comes in).

The principles include the *Three-Term Contingency* (setting and response and consequence), the distinction between respondents and operants, reinforcement, operant conditioning, extinction, conditioned and unconditioned reinforcement, differential reinforcement, shaping, schedules of reinforcement, stimulus evocation, fading, chaining, stimulus generalization, establishing operations, stimulus equivalence, and the recombination of repertoires.

Background—Part 6

Since “reinforcement” (unconditioned and conditioned) come up repeatedly—as part of the verbal operant relations (i.e., the relationships between a verbal operant behavior and the variable or variables, such as evocative stimuli and reinforcing consequences, that control its occurrence)—here is a quick “refresher”:

Reinforcement: The occurrence of stimulus changes after a response that result in that kind of response occurring more often in the future...

Unconditioned Reinforcement: The stimulus changes have their effect without first requiring any prior conditioning (e.g., food, water, “attention”)...

Conditioned Reinforcement: The stimulus changes have their effect only after the stimuli have been paired with other reinforcing stimuli (e.g., praise, money)...

Background—Part 7

Also, since “Establishing Operations” (EOs) come up regularly, here is a quick “refresher” on EOs:

Definition: EOs are developments or processes/procedures that increase the potency of particular reinforcers and increase the effectiveness of stimuli that evoke responses that produce those reinforcers.

Example: Water deprivation—a period without water intake—is an EO that establishes water as a more potent reinforcer *and* that increase the effectiveness of stimuli that evoke responses that produce/obtain water. (Water satiation—drinking lots of water—is an “Abolishing Operation” with the opposite effects...)

So now, from the perspective that encompasses all these principles of behavior, what is unique about language? That is, how does language differ from non-language?