Words as Behavior

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The article that follows, “Antecedents and Consequences of Word,” is reprinted with permission from the *European Journal of Behavior Analysis*. It is one more piece of an on-going longer work. The article especially emphasizes the role of multiple causation in verbal behavior in the converging effects of verbal governance, verbal shaping, attention to verbal stimuli, and the replication of verbal behavior. It considers a variety of contingencies, and by way of introduction it may be appropriate to review them here in terms of antecedents, behavior and consequences. Table 1 classifies three-term contingencies by sorting them on the basis of the nonverbal or verbal status of antecedents and responses and the nonsocial or social status of consequences. The top half of the table (I) shows cases we usually speak of as instances of contingency-governed behavior. When both antecedents and responses are nonverbal, the behavior can be maintained by either nonsocial consequences (A) or social consequences (B). When the behavior is verbal (C and D), it takes social contingencies to create classes of behavior that are occasioned by nonverbal antecedents (D), but once they have been established (as a higher-order

classes) they may be maintained by nonsocial contingencies (C), as when a particular situation occasions a description of contingencies that alters someone’s subsequent behavior.

We speak of verbal governance whenever the antecedents are verbal (II), but the differential contingencies are most obvious when they maintain nonverbal behavior (E and F). Again, the higher-order classes are established by social contingencies, but once established such verbal governance can be maintained either by nonsocial consequences (E), as when someone reaches a destination by following instructions or makes a repair by following a service manual, or by social ones (F), as when someone complies with a request or follows an order. These relations have been distinguished by the respective terms tracking, for instruction-following based on correspondences between verbal behavior and environmental events, and pliance, for instruction-following based on social contingencies (Zettle & Hayes, 1982).

Verbal governance allows a broad range of possible contingencies when verbal antecedents set the occasion for verbal behavior (G and H), probably because verbal units can serve

Table 1
A classification of verbal and nonverbal contingencies.

	Antecedents	Behavior	Consequences
I. Contingency-Governed Behavior			
A. Nonsocial Behavior	Nonverbal	Nonverbal	Nonsocial
B. Social Behavior	Nonverbal	Nonverbal	Social
C. Verbal Mediation, Self-Management	Nonverbal	Verbal	Nonsocial
D. Naming, Labeling, Description	Nonverbal	Verbal	Social
II. Verbally Governed Behavior			
E. Tracking	Verbal	Nonverbal	Nonsocial
F. Pliance	Verbal	Nonverbal	Social
G. Logic, Calculation, Invention	Verbal	Verbal	Nonsocial
H. Speaker-Listener Behavior	Verbal	Verbal	Social

as any of the terms in a three-term contingency (for discussions of the symmetrical status of words as stimuli and as responses, see, for example, Horne & Lowe, 1996, on naming; and Sidman, 1994, and Sidman, Wynne, Maguire, & Barnes, 1989, on equivalence classes). Paralleling cases C and D, social consequences (H) must create the higher-order verbal classes that may later enter into contingencies involving nonsocial consequences (G). Social consequences, often but not necessarily also verbal, are the glue that holds together everyday conversation in both formal and informal settings. The contingencies that involve nonsocial consequences of verbal governance (G), which probably are also prerequisites for the cases that involve verbal behavior occasioned by nonverbal antecedents, are of special interest because they are essential features of science and technology and other varieties of human behavior that have extended the ways in which we act upon our environments. It is of interest that verbal shaping can operate on verbal behavior whether the antecedents are nonverbal or verbal, but social consequences are more likely to be involved in such shaping than nonsocial ones.

This organization could of course be extended to other dimensions of behavior, such as the distinction between natural and artificial contingencies or the different functional properties of local and higher-order classes or the relative phylogenic and ontogenic contributions to antecedents and responses and reinforcers. Furthermore, the boundaries between

these classifications are not sharp ones. For example, a case can easily be made to extend the categories of verbal governance listed as tracking and pliance to cases where the relevant behavior is verbal rather than nonverbal.

The phenomena treated in the article that follows are not theoretical. They are all phenomena that have been observed in everyday instances of human verbal behavior and studied in the analysis of verbal behavior. If the account is to be regarded as theoretical, it is so only in its treatment of how these various phenomena come together to produce complex outcomes.

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