

SENSITIVITY AND STRENGTH: EFFECTS OF INSTRUCTIONS ON RESISTANCE TO CHANGE

CHRISTOPHER A. PODLESNIK and PHILIP N. CHASE
West Virginia University

Several research laboratories have found that instructed behavior can be less sensitive to changes in contingencies than shaped behavior. The current experiment examined whether these differences in sensitivity could be related to resistance to change. Two groups of subjects, who were matched on the basis of an initial disruption assessment, were exposed to a variable-interval 30-s schedule of reinforcement with and without a disrupter. The disrupter was a video presentation of a popular television situation comedy. One group received minimal instructions (MI) that told them only that they could earn points exchangeable for money. Each member of the second group received a complete instruction (CI) that described the topography of the target response that was yoked to a MI subject's stable baseline response rate. The response rates under the disruption condition for the CI subjects *were more resistant to change than the MI subjects in 14 out of 15 disruption sessions*. These findings are discussed in terms of resistance to change being increased by instructional conditions like those manipulated and that the procedures used to test disruption provide an additional method to evaluate differences between instructed and contingency-governed behavior.

Rules, instructions, policies, and directions are assumed to influence behavior and are used to teach, inform, or prescribe behavior in many kinds of situations. How rules affect behavior, however, is still not clearly understood. For this reason, research on the effect of rules on behavior has been a major focus for a number of researchers. Skinner (1969) defined rules as contingency-specifying discriminative stimuli (S^D) that describe behavior and the controlling environment. In defining rules, Skinner emphasized the differences between behavior that is influenced by direct contact with contingencies of reinforcement and behavior that is influenced by descriptions of those contingencies. According to Skinner, contingency-governed behavior is selected by direct contact with the consequences for the behavior in question whereas rule-governed

behavior is maintained by rules and the contingencies supporting the following of rules. Skinner suggested that the controlling variables are different for contingency-governed and rule-governed behavior even when the behaviors are topographically similar.

Sensitivity

One of the primary issues concerning these differences between rule-governed behavior and other behavior is that many studies have found that instructed behavior is insensitive to changes in contingencies. When instructed on one schedule (e.g., fixed-ratio), subjects will often continue to respond in accordance with instructions even though the contingency changes (e.g., to a variable-interval schedule) (Kaufman, Baron, & Kopp, 1966). For example, Shimoff, Catania, and Matthews (1981) taught subjects to respond on either a tandem random-interval (RI) differential-reinforcement-of-low-rates (DRL) or a tandem random-ratio (RR) DRL with either instructions or by exposing the subjects to the contingencies. After training was complete, uninstructed subjects' behavior was sensitive to the removal of the DRL intervals in 10 out of 13 cases, whereas instructed subjects' behavior was sensitive in only 8 out of 20 cases. Shimoff et al. concluded that insensitivity to changes in contingencies was due to the instructions.

Although instructed behavior can be made sensitive to the changes in local contingencies of reinforcement (Galizio, 1979; Joyce & Chase, 1990; LeFrancois, Chase, & Joyce, 1988), the insensitivity of some kinds of instructed behavior is important for applied, methodological, and theoretical reasons. If the goal of teaching or training is to produce behavior that adapts to changes in consequences, then one should not assume that instructions will produce adaptive behavior. In fact some have implicated the relation between instructional control and rigidity (Wulfert, Greenway, Farkas, Hayes, & Dougher, 1994). If instructions are used as part of the methods of an experiment, then one should not assume that the behavior achieved is the same as the behavior achieved without instructions (Galizio, 1979). At the theoretical level, these differences between instructed and noninstructed behavior suggest questions related to the contingencies operating on rule-governed behavior.

One such question is whether rule-governed behavior is typically at greater strength than the specific classes of responding to which it is compared. For example, one may account for the insensitivity of rule-governed behavior found in the typical experiment by referring to the strength of rule-governed behavior as a result of the extensive and generalized history the human subjects have had for following rules. In most cases, rule following has been reinforced with a range of different topographies of behavior and specific consequences. Given such typical histories, one should not be surprised to find that instructed behavior often tends to be less sensitive to changes in contingencies because it is stronger than the contingency-governed behavior to which it is compared. In current behavioral terms, differences in strength, may be described in terms of resistance to change.

