

*INSTRUCTIONAL INFLUENCES ON ANALOGUE
FUNCTIONAL ANALYSIS OUTCOMES*

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Analogue assessments were conducted with a common contingency (escape from tasks) that varied only by three different instructions describing the contingency. In one condition, the contingency was described as “taking a break,” in another condition it was described as “time-out,” and no description of the contingency was provided in a third condition. The participant was a typically developing 5-year-old child with a diagnosis of attention deficit hyperactivity disorder. Rates of inappropriate behavior varied substantially across the three conditions as an apparent effect of the prior instructions. Some implications for conducting functional analyses with verbal children are discussed.

DESCRIPTORS: attention deficit hyperactivity disorder, functional analysis, instructions, rule-governed behavior, verbal behavior

The extension of functional analysis procedures to typically developing children who discriminate spoken instructions is an emerging area of research and has resulted in a variety of relatively small but potentially important procedural variations. One such variation is whether or not children are given prior instructions regarding the specific contingencies associated with different analogue assessment conditions. Some studies using functional analyses with typically developing children have provided no prior instructions (e.g., Broussard & Northup, 1995), whereas others have provided specific instructions regarding the contingencies associated with each condition (e.g., “if you talk, I will have to remind you to work quietly”; Broussard & Northup, 1997). It might be expected that children with well-developed verbal repertoires could be greatly influenced by a description of contingencies. In general, accu-

rate instructions can be expected to facilitate subsequent performance. Thus, informing a child of the contingencies associated with an analogue assessment condition could potentially increase the efficiency of a functional analysis. However, conclusions may be seriously limited if a child responds only to the instruction and never directly contacts the contingency associated with the assessment condition (Shimoff, Matthews, & Catania, 1986).

The purpose of this study was to evaluate the effects of different instructions on the outcomes of analogue assessment conditions intended to test for negative reinforcement. We compared results from three analogue assessment conditions that varied only by the verbal description of the contingency that was given for inappropriate behavior.

METHOD

Participant and Setting

Marie was a 5-year-old girl who attended a summer program for children with a diagnosis of attention deficit hyperactivity disorder. Marie had no other psychiatric diagnosis, and an assessment indicated that she

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was functioning within at least an average range of intellectual ability. All sessions were conducted in a small therapy room located in the psychology department of a large state university.

Response Definitions and Data Collection

Response definitions. Inappropriate vocalizations, out-of-seat behavior, destruction, and aggression were the target behaviors. *Inappropriate vocalizations* were defined as any vocal noise or verbalization that was not preceded by the child's raised hand and acknowledgment by an adult. *Out of seat* was defined as the child's full body weight not being supported by a chair for at least 3 s. *Destruction* was defined as scribbling with a pencil on the academic task, desk, or walls of the therapy room. *Aggression* was defined as hitting the therapist or poking the therapist's body with a pencil.

Data collection. Observers recorded target behaviors on laptop computers; results are reported as the combined rate of inappropriate behaviors per minute. All sessions were 5 min long, and three to six sessions were conducted each morning. Interobserver agreement was obtained for at least 25% of all sessions for each participant and condition. Mean interobserver agreement was 91% (range, 85% to 97%) for out-of-seat behavior, 96% (range, 89% to 100%) for inappropriate vocalizations, 96% (range, 90% to 99%) for destruction, and 97% (90% to 100%) for aggression.

Procedure

Functional analysis. An initial assessment consisted of attention (reprimand), escape, and control conditions alternated in a multielement design. During attention and escape conditions, Marie was seated at a desk with only a therapist present and was given an instructional-level preacademic task (tracing). Prior to each session, she was told that she should stay in her seat and work quietly.

Additional instructions regarding specific contingencies varied across conditions as described below.

During the attention condition, the therapist initially presented the task and told the child to "stay in your seat and work quietly; if you [any target behavior] I will have to remind you." The therapist ignored the participant except to provide a reprimand contingent on the occurrence of a target behavior (e.g., "You need to work quietly"). During the escape condition, the task was presented and the child was told "if you [any target behavior] you might need to take a break." Contingent on the occurrence of a target behavior, the therapist said "take a break" in a neutral tone of voice. A break consisted of the therapist turning Marie's chair away from the desk, removing the task, and turning away from the student for 30 s. After 30 s, the child's chair was turned back to the desk, and the therapist gestured to her to return to work. During the control condition, the therapist sat across from Marie and helped her to complete a variety of simple puzzles chosen by the participant. Noncontingent attention was provided approximately every 30 s in the form of praise and approving statements.

Assessment of Instructions

Because high rates of target behavior occurred in the escape condition, two additional conditions were conducted. A time-out condition was first compared to an escape condition and then subsequently compared to a no-instructions condition. All conditions were conducted in the same room by the same therapist. Procedures in the time-out and no-instructions conditions were identical to the escape condition, except for the additional instructions that were given regarding how the contingency was described. During the time-out condition the therapist stated, "if you [any target behavior] you will be in time-out" and said "time-out"

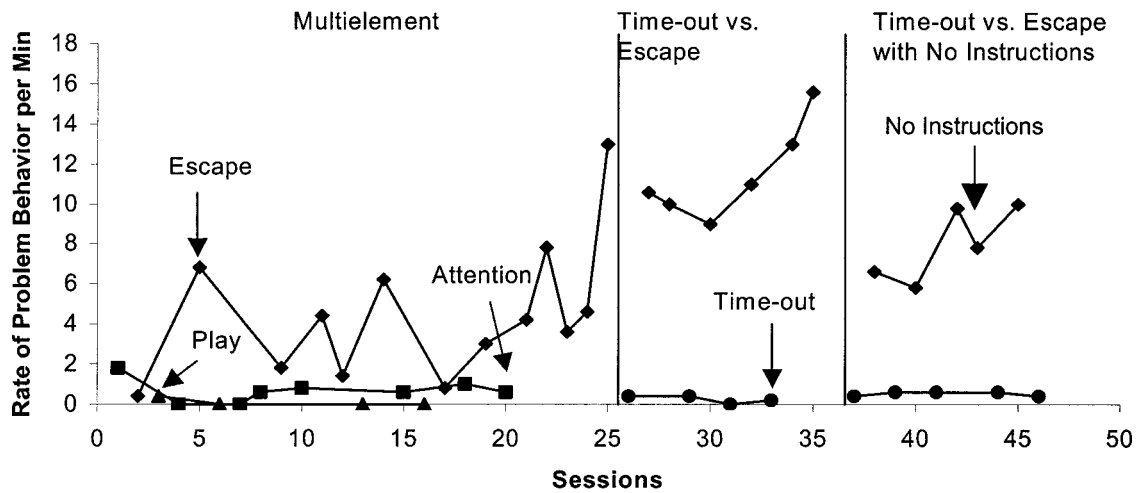


Figure 1. Rates of inappropriate behavior during initial functional analysis conditions and pairwise comparisons between time-out and escape conditions and time-out and no-instructions conditions.

in a neutral tone of voice contingent on the occurrence of a target behavior. No additional instructions were given in the no-instructions condition, and the therapist made no comment following the occurrence of a target behavior.

RESULTS AND DISCUSSION

Functional Analysis

Figure 1 shows the rate of inappropriate behavior during the initial functional analysis and the results of the pairwise comparison of the escape and time-out conditions. High rates of inappropriate behavior occurred during the escape condition ($M = 4.5$ responses per minute; range, 0.4 to 3.0), and moderate rates occurred during the attention condition ($M = 0.7$ response per minute; range, 0 to 1.8). No inappropriate behavior occurred during the last three of four control conditions, and the mean was 0.1 response per minute.

Assessment of Instructions

Figure 1 also shows the comparison of the escape condition with the time-out and no-instructions conditions. When the escape condition was compared to the time-out

condition, high rates of inappropriate behavior continued to occur during the escape condition ($M = 11.5$ responses per minute; range, 9 to 15.6). However, very low rates occurred during the time-out conditions ($M = 0.3$ response per minute; range, 0 to 0.4). When the time-out condition was compared to the no-instructions condition, the rate of inappropriate behavior during the no-instructions condition was lower than in the previous escape conditions but was also high ($M = 8.0$ responses per minute; range, 5.8 to 10.0). The rate of inappropriate behavior remained low during the time-out conditions ($M = 0.5$ response per minute; range, 0.4 to 0.6).

Results indicate that rates of inappropriate behavior varied substantially across the three conditions. The rate was high when the contingency was described as "taking a break" and was low when it was described as "time-out." High rates of inappropriate behavior also occurred when no description of the contingency was given, but rates were somewhat lower than when it was described as taking a break.

The unique characteristics associated with various populations and problem behaviors can be expected to necessitate some proce-

dural variations from the standard functional analysis procedures as described by Iwata, Dorsey, Slifer, Bauman, and Richman (1982/1994). Thus, it is important to evaluate if and how various procedural and contextual variables may influence functional analysis outcomes. The present results suggest that instructions may be a procedural variable that could substantially influence assessment outcomes for some children.

The present results show that “taking a break” was associated with high rates of inappropriate behavior. However, parent and teacher reports indicated that this specific comment had rarely, if ever, occurred previously. The parents did report that they had used a brief exclusionary time-out procedure, which they described as time-out to Marie (although they reported it to be ineffective). Prior informal classroom observations suggested that her teacher did not use time-out or remove assigned materials following the target behaviors; however, the teacher did passively allow Marie to remain off task and out of seat for extended periods of time. Thus, the no-instructions condition in this study may have most accurately represented naturally occurring classroom conditions.

It is a limitation of the study that a baseline of no instructions was not conducted earlier, because it is possible that sequence or carryover effects may have influenced the results. It is also a limitation that explanation of the current results is beyond the scope of the current study, although several possibil-

ities may warrant further research. For example, it is possible that the effects associated with describing an assessment condition as “time-out” may reflect an historical pairing between past punishment and its description as time-out. Thus the term *time-out* may have acquired discriminative properties. An interpretation in terms of establishing operations might also be considered, because use of the term *time-out* appeared to alter the value of escape from task demands. Future studies might use experimental designs constructed specifically to evaluate these types of basic behavioral processes. Such studies might contribute to applied practice and further the study of verbal behavior in applied settings.

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