Effects of Verbal Reprimands on Targeted and Untargeted Stereotypy

Jennifer L. Cook1, John T. Rapp2, Lindsey A. Gomes3, Tammy J. Frazer3, Tracie L. Lindblad3

1St. Cloud State University, 2Auburn University, 3Monarch House

ABSTRACT

Results of brief functional analyses indicated that motor and vocal stereotypy persisted in the absence of social consequences for five participants diagnosed with autism spectrum disorder (ASD). Subsequently, effects of a stimulus control procedure involving contingent reprimands for each participant’s higher probability (targeted) stereotypy were evaluated. Results indicated that contingent verbal reprimands (i) decreased the targeted stereotypy for all four participants, (ii) decreased the untargeted stereotypy for two of five participants, and (iii) increased the untargeted stereotypy for one of five participants. Although response suppression was not achieved for any participant, three participants maintained low levels of the target stereotypy with one or two reprimands during 5-min sessions. Furthermore, two of those participants maintained near-zero levels of motor and vocal stereotypy during 10-min sessions. These findings suggest that signaled verbal reprimands may be a practical intervention for reducing stereotypy in some children with ASD. Some limitations of the findings and areas of future research are briefly discussed.

INTRODUCTION

Although the literature suggests that stimulus control procedures are an emerging treatment option for stereotypy, the extant literature is limited in at least three ways. First, none of the studies with children with ASD have provided data on the delivery of consequences for stereotypy. If stereotypy can be reduced to low levels with few applications of a mild punisher, the procedure may be practical for and acceptable to caregivers and instructors, even if response suppression cannot be achieved (e.g., Rapp et al., 2009). Second, the studies provide few if any empirical guidelines for increasing the duration of the restricted-access condition while also decreasing the duration of the free-access condition. Third, most studies did not evaluate collateral behavior changes when stimulus control procedures were implemented (Lanovaz et al., 2013).

METHOD

Participants, Setting, Response Definitions, and Data Collection

Five children with ASD aged 5 to 18 years participated in this study. Experimenter conducted all sessions in a 3.8m × 3.8m therapy room of a facility that provided behavior-analytic services. The session room was typically equipped with a small table and one or two chairs.

Functional Analysis

Results of the functional analyses indicated that each participant’s stereotypy persisted in the absence of social consequences. Additionally, results (see Figure 3) indicated that Hannah engaged in stereotypy only in the presence of music.

Experimental Design and Procedures

A combined multielement and reversal design was used to evaluate the effects of signaled verbal reprimands on targeted stereotypy and collateral behavior for each participant. Sessions were 5 min in duration unless otherwise specified. Experimenter conducted five to 12 sessions, 1 to 5 days per week. Depending on the participant, the primary investigator conducted sessions in a semi-random order with no card (NC), a green card (GC), and a red card (RC). In the RC (punishment [PUN]) and RC (baseline [BL]) conditions, the experimenter provided reprimands for the target stereotypy in the RC (PUN) phase, but she did not provide consequences for any behavior in the RC (BL) phase.

Green Card (GC). The experimenter placed a large green poster board on the wall and recruited the participant’s attention, pointed to the GC and said, “It’s green time.” She did not interact with the participant nor provide social consequences for any behavior.

No Card (NC). This condition was identical to the GC (BL) condition except that the experimenter did not use a GC.

Red Card Baseline (RC [BL]). This condition was identical to the GC (BL) condition, except that the experimenter placed a large red poster board on the wall, recruited the participant’s attention, and said, “It’s red time.”

Red Card Punishment (RC [PUN]). The experimenter placed the RC on the wall, recruited the participant’s attention, pointed to the RC and delivered the rule, “It’s red time, keep your hands down.” She did not interact with the participant but, contingent on the occurrence of target stereotypy, she provided the verbal reprimand, “It’s red time, hands down!” while pointing to the RC.

RESULTS

Figure 1 depicts the results for Gregory’s targeted motor stereotypy (upper panel), and the collateral effects of the experimenter’s verbal reprimands on his untargeted vocal stereotypy (lower panel). As a whole, results indicate that Gregory’s vocal stereotypy temporarily decreased when contingent reprimands were provided for his motor stereotypy.

Figure 2 shows the results for Sam’s targeted finger manipulations (upper panel), the collateral effects of verbal reprimands for finger manipulation on his untargeted vocal stereotypy (middle panel), and his mands for social interaction (lower panel). As a whole, results across the phases suggest that Sam’s engagement in vocal stereotypy and mands increased contingent reprimands were delivered for his engagement in finger manipulation.

Figure 4 shows the results for Hannah’s targeted body rocking (upper panel), and the collateral effects of verbal reprimands for body rocking on her untargeted arm flapping (lower panel). Results suggest that Hannah’s arm flapping decreased when verbal reprimands decreased her body rocking.

DISCUSSION

Results of this study contribute to the literature on the assessment and treatment of stereotypy in at least three ways. First, results of the brief functional analysis for Hannah demonstrated that both forms of her stereotypy were affected by ambient stimulation, which is consistent with the findings of previous research (e.g., Lanovaz, Rapp & Ferguson, 2013). Second, consistent with the conclusions of Lanovaz et al. (2013), the collateral effects were somewhat idiosyncratic across participants: decreasing display decreases in untargeted stereotypy, one displayed increases in untargeted stereotypy and mands, and one participant did not display systematic changes in untargeted behavior. Third, this investigation provides further empirical support for the use of mild contingent verbal reprimands to decrease stereotypic behavior (e.g., Rapp et al., 2009). Specifically, two or fewer reprimands per session produced low levels of targeted and untargeted stereotypy for Tyler and Hannah and targeted stereotypy for Gregory. Relatedly, we systematically increased RC sessions from 5 to 10 min and simultaneously decreased the NC sessions from 5 to 1 min for two participants.

There are some limitations to this investigation that require discussion. First, we did not evaluate the effects of reprimands in the absence of the RC; thus, it is unclear whether the RC exerted effects beyond those produced by verbal reprimands. Second, during some of the early sessions with RC (PUN) condition, two participants repeated either rules provided at the beginning of the session or reprimands provided by the experimenter. Third, we did not socially validate either the procedures or outcomes from this study. Finally, we did not evaluate the effects of the RC condition on task engagement. Results for Sam suggest that the value of such consequences increased when his stereotypy was restricted. Thus, had tasks been available within the RC (PUN) condition, Sam may have engaged in tasks to access social consequences (e.g., attention).

REFERENCES

