

# The Effects of Staff Preference on Functional Analysis

JONATHON METZ, Sean Smith, Nicole Ruggiero, LaToya Kinard and Tracy L. Kettering

## INTRODUCTION

Previous research has demonstrated that the presence of specific stimuli, such as preferred items or people, may evoke problem behavior and influence the differentiation that can be observed during a functional analysis (Tiger et al. 2009).

For example, Ringdahl et al. (2000) demonstrated that problem behavior during functional analysis was only observed when caregivers served as therapist, while the rates of problem behavior remained lower and less differentiated when staff members served as therapists.

Reinforcers can be conditioned by pairing them with highly preferred stimuli with neutral or low-preferred stimuli. (Bruzek & Thompson, 2007; Dozier et al., 2012).

For example, Dozier et al. found that pairing highly preferred edible reinforcers with praise statements was effective to condition praise as a reinforcer.

The purpose of the current study was to extend research on stimulus pairing procedure to increase preference for a low-preferred (and likely aversive) staff shown to evoke problem behavior during a functional analysis.

## METHOD

### Participant and Setting

**Matthew:** 21-year-old male diagnosed with impulse control disorder and moderate intellectual disability.

- Sessions were conducted in an 8 ft x 8 ft session room or a large common area within the facility where Matthew resided.

### Dependent Variables and Data Collection

**Combined Inappropriate Behavior:** Aggression, disruption, self-injurious behavior, and inappropriate social behavior. Frequency data were recorded using a computerized data collection system.

**Rank:** The rank of each staff member was determined by the order that the pictures were selected by Matthew during the preference assessment. Data were collected via paper and pencil.

### Procedures

#### MSWO Preference Assessment

Picture cards (2.25 in x 3.5 in) for 14 staff members were placed in an array on a table. The participant was provided with an instruction to “pick one.” Once a picture was selected, it was removed. This procedure was continued until all pictures were selected.

- Preference was assessed prior to the functional analysis.
- Preference was re-assessed prior to the stimulus pairing procedure to select therapists for the stimulus pairing procedure.

#### Functional Analysis

Access to 30 s of reinforcement was provided contingent on inappropriate behavior during the attention, escape, and tangible conditions. Noncontingent access to highly preferred materials and attention were provided on a continuous reinforcement schedule during the control condition. No consequences for inappropriate behavior were provided during the control or ignore conditions.

- **High-Preferred Staff:** Two staff members identified as high-preferred in the MSWO served as therapists.
- **Low-Preferred Staff:** Two staff members identified as low-preferred in the MSWO served as therapists.

#### Stimulus Pairing

- **Baseline:** Low-preferred staff did not regularly provide care or place demands on the participant. No systematic interaction was programmed for any of the staff members.
- **Stimulus Pairing:** A low-preferred staff member noncontingently provided Matthew with a small edible item 1-6 times per week.
- **Maintenance (Lilly only):** The pairing procedure was terminated and initiated with a second low-preferred staff member.
- **Activity Probe:** The therapist presented Matthew with one leisure activity and one vocational activity. Contingent on refusal statements or noncompliance, the session was terminated.

### Experimental Design

**Functional Analysis:** The variables maintaining problem behavior were evaluated in a multielement design.

**Stimulus Pairing:** The effects of the stimulus pairing on the preference for two low-preferred staff members was evaluated in a multiple baseline across participants design.

### Interobserver Agreement

IOA was calculated for 33% of functional analysis sessions. Mean agreement was 95% (range, from 79% to 100%). IOA was calculated for 29% of preference assessments and agreement was 100%.

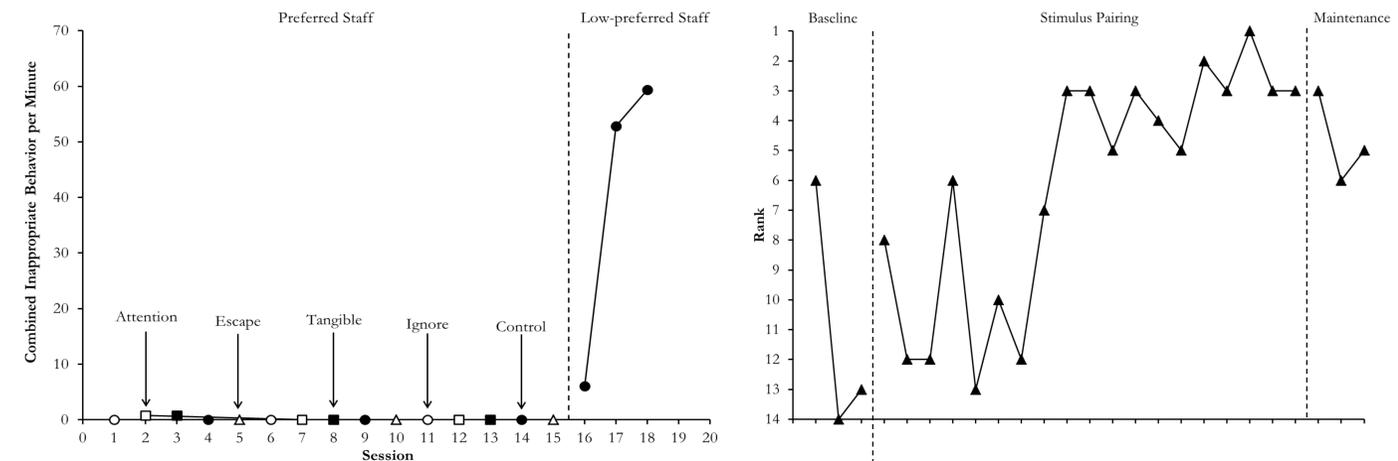


Figure 1 displays combined inappropriate behavior with high-preferred and low-preferred staff during the functional analysis.

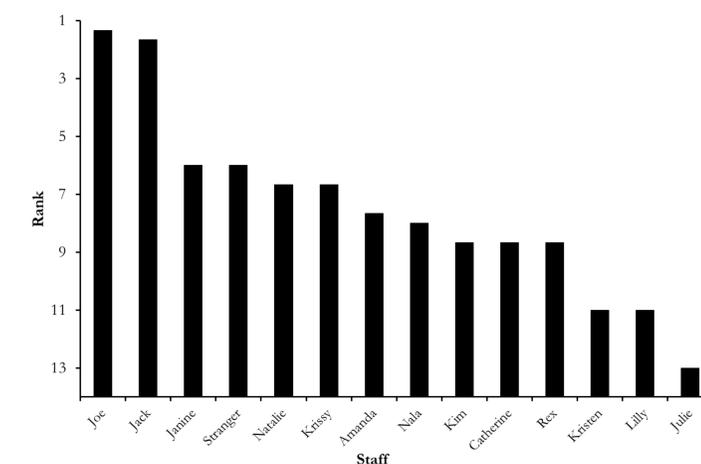


Figure 2 displays the average rank of staff preference prior to stimulus pairing.

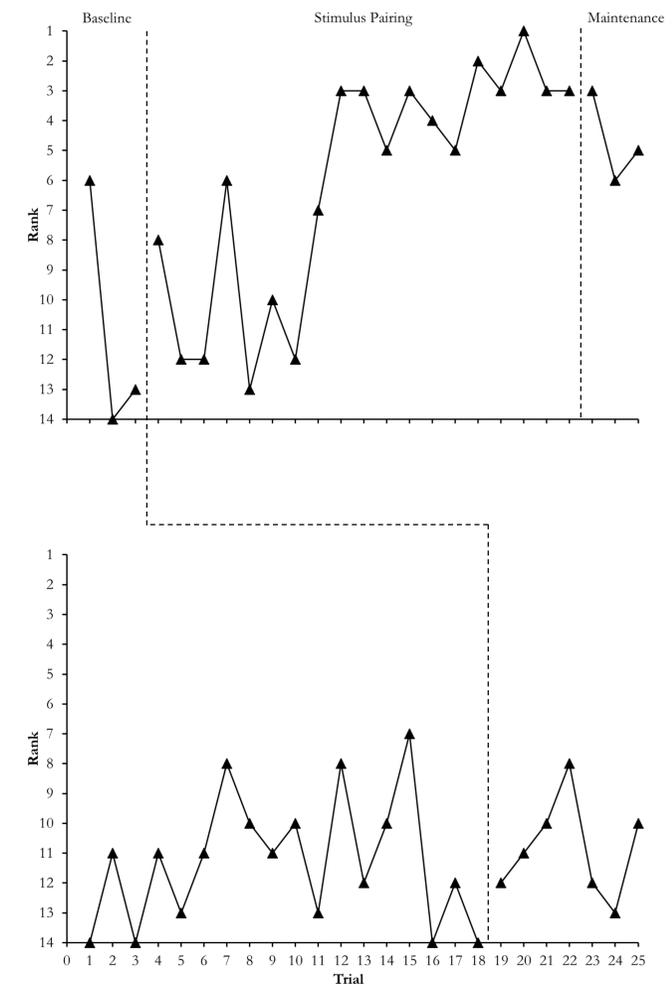


Figure 3 displays the preference rank for Lilly (top panel) and Julie (bottom panel).

## DISCUSSION

- Preference for one of the two low-preferred staff members (Lilly) increased following the stimulus pairing procedure and maintained for at least one week after pairing ended. Compliance during one leisure and one vocational task presented by Lilly also increased from 0% prior to pairing to 100% following pairing.
- It is unclear whether problem behavior in the presence of the low-preferred staff member was maintained by escape from that person or access to a more preferred person and the intensity of the problem behavior during the control condition prevented further evaluation of the specific variables evoking and maintaining problem behavior.
- The pairing schedule was arbitrarily selected. Preference may have shifted more quickly under more dense schedules of pairing.
- The variables responsible for the conditioning history of the staff preference level were unclear. Future research may attempt to isolate the variables responsible for conditioning staff in order to identify a more effective pairing (or unpairing) procedure.
- Although preference for Lilly remained high during maintenance, it is possible that the effects of pairing may only be a temporary change.

## REFERENCES

- Bruzek, J. L., & Thompson, R. H. (2007). Antecedent Effects of Observing Peer Play. *Journal of Applied Behavior Analysis, 40*, 327–331.
- Dozier, C. L., Iwata, B. A., Thomason-Sassi, J., Worsdell, A. S., & Wilson, D. M. (2012). A comparison of two pairing procedures to establish praise as a reinforcer. *Journal of Applied Behavior Analysis, 45*(4), 721–735.
- Ringdahl, J. E., & Sellers, J. A. (2000). The effects of different adults as therapists during functional analyses. *Journal of Applied Behavior Analysis, 33*, 247–250.
- Tiger, J. H., Fisher, W. W., Toussaint, K. A., Kodak, T. (2009). Progressing from initially ambiguous functional analyses: three case examples. *Research in Developmental Disabilities, 30*, 910-926.