

The Stability of Preferences for Tangible Items in Children Diagnosed with Autism

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Introduction

- Identifying preferred stimuli that function as reinforcers is extremely important when teaching skills to young children diagnosed with autism. Preference assessments can be conducted to identify a range of high to low preferred stimuli. To determine whether results from a preference assessment are predictive of a reinforcing stimulus, a reinforcer assessment can be conducted.
- Past research has been conducted that assessed preference stability over time with adults diagnosed with various developmental disabilities (Zhou, Iwata, Goff, & Shore, 2001; Ciccone, Graff, & Ahearn, 2007).
- Past research has been conducted that assessed preference stability across sessions with adults with developmental disabilities (Hanley, Iwata, & Roscoe, 2006).
- Only one study has assessed stability of preferences when frequent assessments are conducted across days with young children diagnosed with autism (Carr, Nicolson, & Higbee, 2000).
- The current study extends past research by using a procedure similar to Carr et al. (2000) and Hanley et al. (2006) by conducting frequent preference assessments across sessions with young children diagnosed with autism.

Method

Participants:

- 6 participants with the diagnosis of autism were used in the study. Nicholas was a 6 year old boy receiving approximately 8 hours of intensive in-home behavioral therapy per week. Molly and Nicole were 5 year old girls receiving approximately 27 hours of intensive, in-home behavioral therapy per week. Cory was a 5 year old boy receiving approximately 27 hours of intensive, in-home behavioral therapy per week. William and Timothy were 3.5 year old boys receiving approximately 4 hours of behavioral therapy per week at the University based program.

Setting:

- Nicholas, Molly, and Nicole's sessions were conducted in their homes in a room equipped with a camera. Cory's sessions were conducted in a small private room located at the day-care he attended. William and Timothy's sessions were conducted in a small therapy room on campus that was equipped with a camera and a two-way mirror. All rooms contained a table and 2-3 chairs.

Procedure:

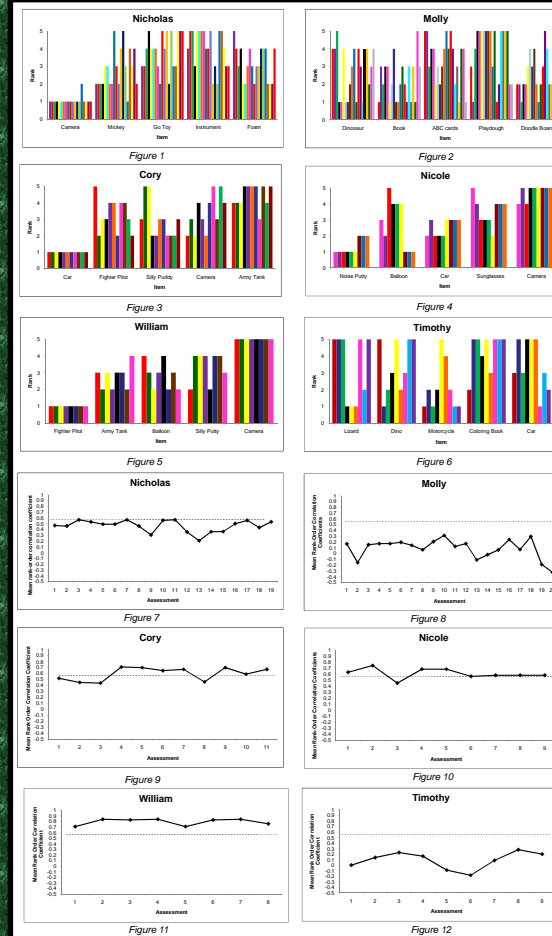
- Parents and teachers identified 5 potentially preferred items for each child.
- Frequent multiple-stimulus without replacement preference assessments (DeLeon & Iwata, 1996) were conducted to determine preference stability across sessions.
- 19 total assessments were conducted with Nicholas, 20 total assessments were conducted with Molly, 11 total assessments were conducted with Cory, 9 total assessments were conducted with Nicole, 8 total assessments were conducted with William, and 9 total assessments were conducted with Timothy.
- The mean number of days between assessments was 6.1 days for Nicholas, 3.4 days for Molly, 2.7 days for Cory, 2 days for Nicole, 4 days for William, and 3.4 days for Timothy.

Method (cont.)

Procedural Integrity (PI) and Inter-observer Agreement (IOA):

- PI was collected for 5% of Nicholas' sessions, 20% of Molly's sessions, 27% of Cory's sessions, 22% of Nicole's sessions, 25% of William's sessions, and 22% of Timothy's sessions. The PI was 100% for all participants.
- IOA was collected for 5% of Nicholas' sessions, 35% of Molly's sessions, 73% of Cory's sessions, 33% of Nicole's sessions, 100% of William's sessions, and 78% of Timothy's sessions. IOA was 100% for all participants.

Results



Figures 1-6. The rank ordered preferences for each participant across all sessions with 1 indicating the highest preferred and 5 indicating the least preferred.
Figures 7-12. The mean rank-ordered correlation coefficients for each participant.

Results (cont.)

- Figures 1-6 display the rank for each item during the multiple stimulus without replacement preference assessment across all sessions for each participant.
- The top preferred item stays consistently stable for 3 participants (Nicholas, Cory, and William).
- Overall preferences appear to be stable for Cory, Nicole, and William.
- Overall preferences appear unstable for Nicholas, Molly, and Timothy.
- Figures 7-12 display the mean rank-order correlation coefficients for each participant. The ranks for each assessment were statistically compared to the ranks for every other assessment to determine stability of preferences across sessions for each participant. Preferences were considered stable if the correlation coefficients equaled or exceeded .58 (Salkind, 2001).
- Correlation Coefficients consistently equal or exceed .58 for 3 participants (Cory, Nicole, & William) and correlation coefficients consistently fall below the critical value for 3 participants (Nicholas, Molly, & Timothy).

Discussion

- Three children from the study exhibited stable preferences, while 3 children showed variable preferences for tangible items across sessions. The results from this study suggest that stability of preferences for tangible items across sessions may vary in children diagnosed with autism.
- The results contrast with previous literature that suggests preferences are stable across sessions with adults diagnosed with developmental disabilities and children diagnosed with autism (Carr et al.; Hanley et al.)
- The present results have implications for clinical work with children diagnosed with autism because preferences may shift from session to session, resulting in potential decreases in performance.
- There were some limitations to the study that future research could address. First, there were few participants in the study and future research could benefit from a replication with more participants. Second, a reinforcer assessment was not conducted to determine if changes in preference resulted in decreases in performance. Future research could systematically investigate whether changes in preference affect skill acquisition and behavior management programs for children diagnosed with autism.

Selected References

- Carr, J.E., Nicolson, A.C., & Higbee, T.S. (2000). Evaluation of a brief multiple-stimulus preference assessment in a naturalistic context. *Journal of Applied Behavior Analysis*, 33, 353-357.
- Ciccone, F.J., Graff, R.B., & Ahearn, W.H. (2007). Long-term stability of edible preferences in individuals with developmental disabilities. *Behavioral Interventions*, 22, 223-228.
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