Using the PEAK-T Curriculum to Teach Children with Autism to Identify Private Events of Others in Context

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Introduction

- Individuals diagnosed with autism spectrum disorder often have difficulties interpreting their own and others emotional states (Baron-Cohen et al., 1985).
- Downs and Smith (2004) found that children with ASD were less likely to recognize emotional reactions in certain situations than their typically developing peers. Consequently, there is an immediate need for training procedures to address these difficulties.
- McHugh et al. (2011) provided the first demonstration that children with ASD can be taught to label situation-based emotions which then generalized to untrained stimulus items.
- The purpose of the current study is to extend off of McHugh et al. (2011) by utilizing procedures from the *PEAK Transformation Module* to teach children with autism spectrum disorder to identify private events of others in context.

Methods

- *Baseline & Relational Testing:* Participants were provided with access to a preferred item following each trial block for non-experimental behaviors, and no reinforcement or prompts were provided contingent on correct/incorrect responding. The relational testing phase was identical to baseline conditions.
- *Relational Training:* The presentation of the train AB, BC relations were identical to the baseline phase, however, correct responses were reinforced with praise, while incorrect responses were followed by the experimenter stating the correct response and the participant repeating the correct response.
- *Maintenance Probes:* Conducted for all relation across participants 2-weeks following the final trials in the training phases. Maintenance probes were identical to the probes conducted in the baseline phases.
- *Multiple Exemplar Training:* With conditions identical to the baseline and relational training, the AB relation was trained to mastery. Then probes the same as baseline were conducted for all the MET relations and the originally trained relations. Training of the BC MET relation was conducted the same as the AB relation, though a change in reinforcer magnitude occurred during this training to promote compliance, since Stanley was exhibiting non-compliance throughout the study.

Results

- Two of the three participants were able to increase their correct responding for all trained, derived, and transformation relations, after the training of the AB and BC relations. Maintenance probes found that their responding remained high after 2-weeks.
- The third participant required multiple exemplar training of novel stimuli to increase his correct responding for all of the video-based scenarios. After the AB and BC training of the MET stimuli, Stanley was able to increase and maintain his correct responding for all relations.

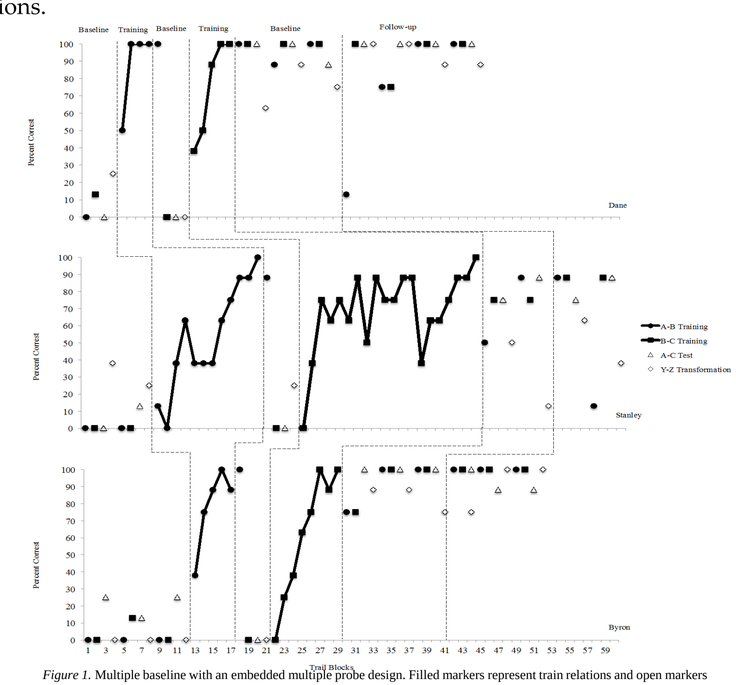

Figure 1. Multiple baseline with an embedded multiple probe design. Filled markers represent train relations and open markers represent derived and transformation relations. Data path indicate where training occurred.

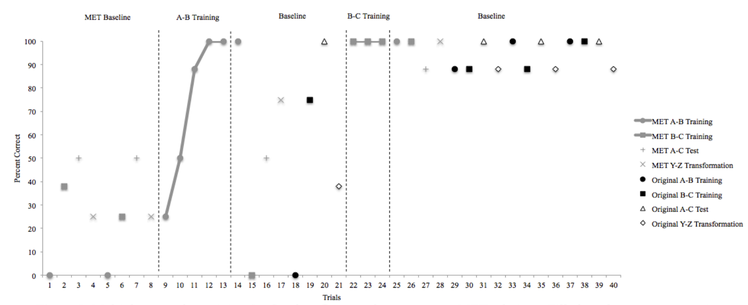

Figure 2. Multiple exemplar training for Stanley. Gray markers represent MET relations. Filled markers represent train relations and open markers represent derived and transformation relations. Data path indicate where training occurred.

Discussion

- The current study supports and extends on existing literature by demonstrating that such procedures can be utilized to facilitate correct responding to a transformation task that requires the transformation of stimulus function to a novel context.
- Since all participants were verbal, it cannot be assumed that the procedures will generalize to those with lower verbal skills.
- Generalization to novel stimuli was not assessed, and therefore it is not known if the participants could respond correctly if provided novel emotions and contexts.
- A third limitation is that the MET procedures implemented with Stanley was not replicated across any of the other participants.
- A final limitation is that a change in reinforcer magnitude was implemented during the BC training of the MET phase for Stanley. Therefore, it is not clear if the increase in correct responding to the original stimulus set was due to the MET or the change in reinforcer magnitude.
- Future research can extend on the current findings by evaluating the generalizability to novel stimulus sets as well as to evaluate the extent to which MET of several stimulus classes influences the development of other stimulus classes.

References

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McHugh, L., Bobarnac, A., & Reed, P. (2011). Brief Report: Teaching situation-based emotions to children with autism spectrum disorder. *Journal of Autism and Developmental Disorders, 41*, 1423-1428.

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