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Infant Siblings of Children Diagnosed with Autism Spectrum Disorder Have Higher Perseveration

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Infant Siblings of Children Diagnosed with Autism Spectrum Disorder Have Higher Perseveration

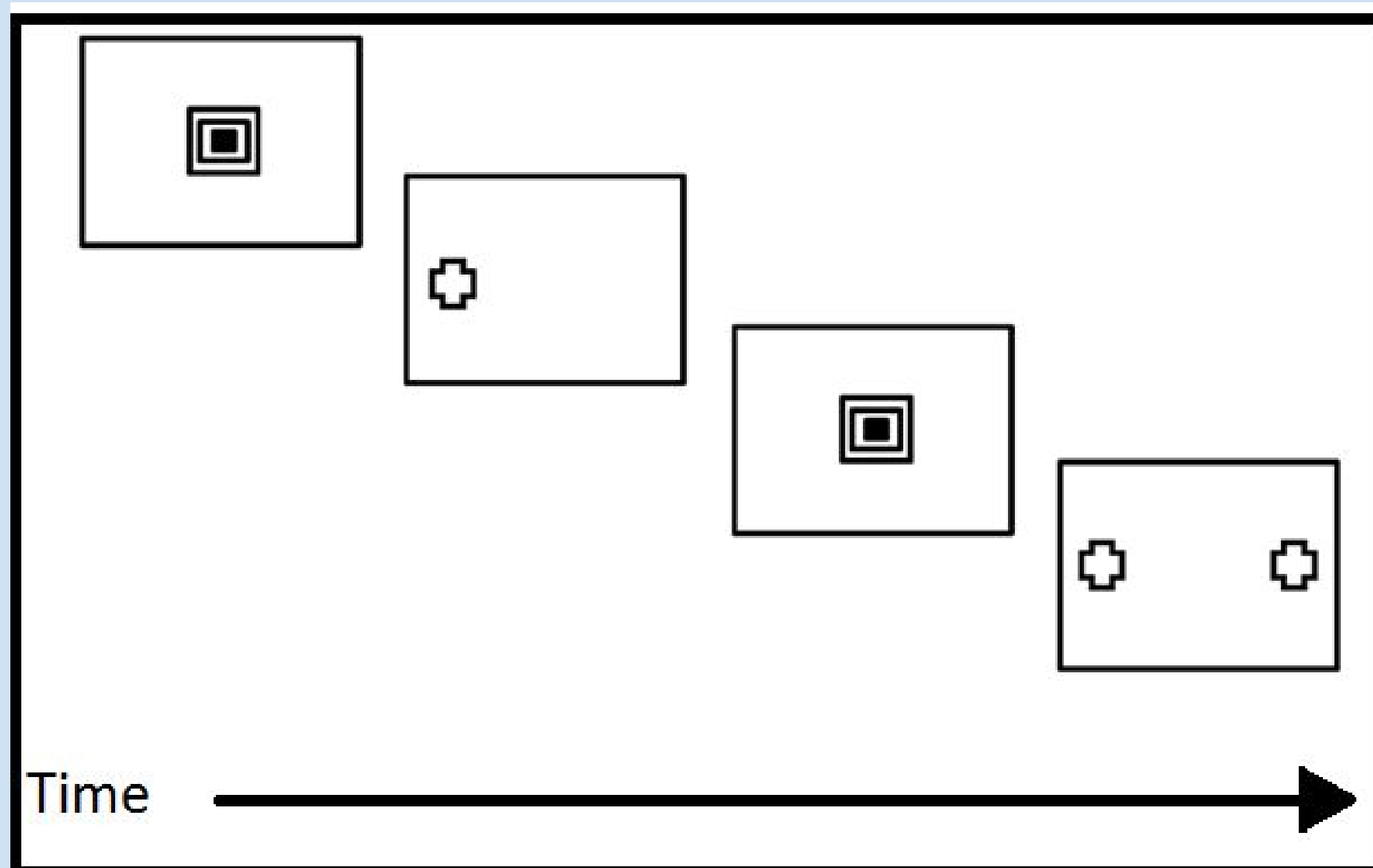
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Problem

- Children with ASD have difficulty with social cues, repetitive behaviors, and restricted interests
- Many of these signs show up after a diagnosis and many children remain undiagnosed until school-age
- We want to demonstrate the utility of a screening tool to identify infants at risk for ASD
- This tool could enable earlier identification and treatment for those who have unknown risk for ASD

Method

- 31 infants with a sibling with ASD (11 boys) and 31 age- and sex-matched controls (no ASD relatives)
- Ages ranging from 79 to 232 days old
- Infants completed a novelty preference task
- Used independent samples t-test to determine if ASD sibling status associated with higher perseveration rates



Infant Perseveration Task

Results

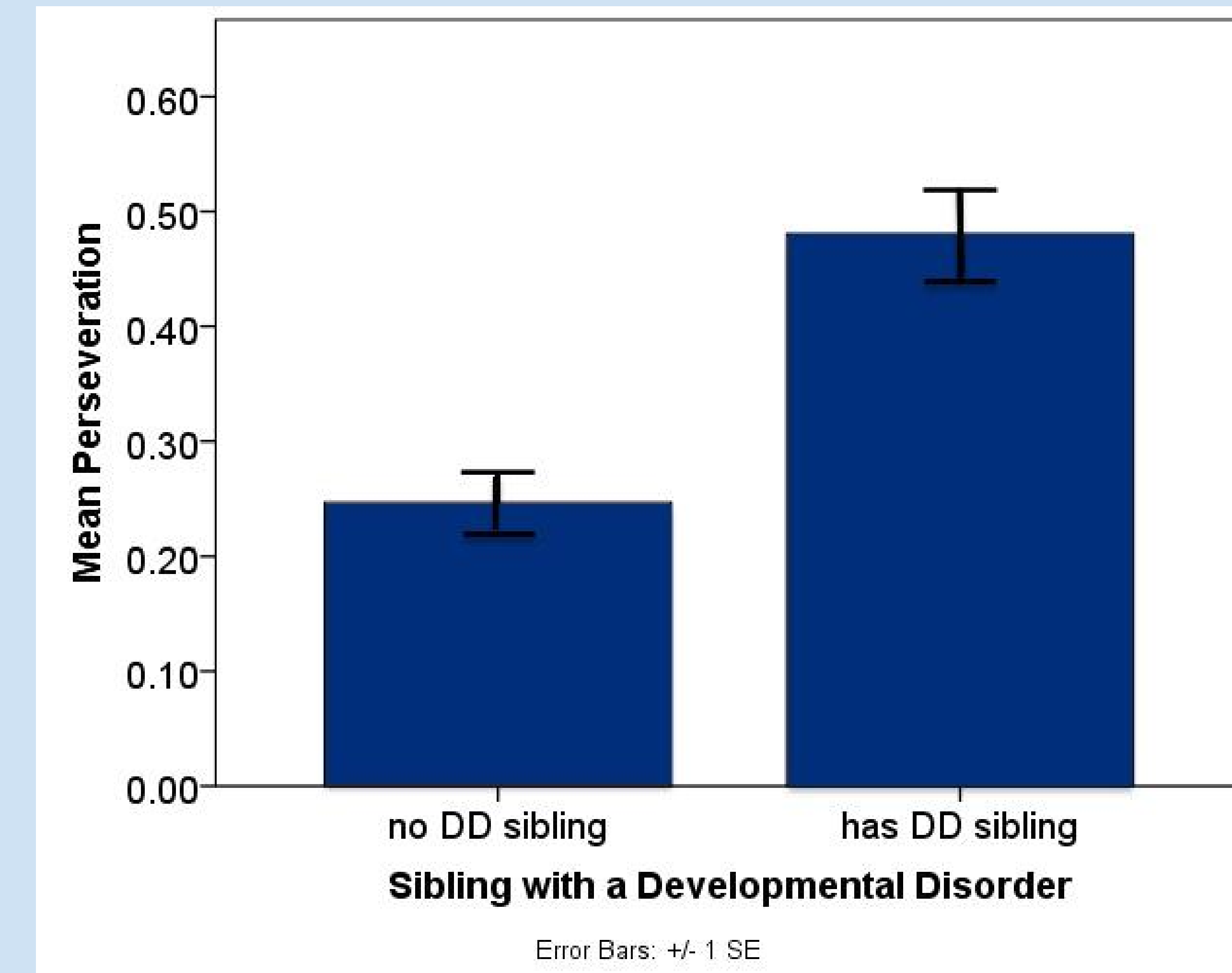
- Perseveration rates were higher for infants with siblings with ASD
- Infants with an older sibling with ASD exhibited perseveration rates of 48%, while those without relatives with ASD showed rates of 25%
- Infants who show higher rates of perseveration might be more likely to develop ASD symptoms early on in childhood
- This is helpful because early treatments for ASD have been developed. Our task could be developed into a screening tool for infants with unknown risk

Group Statistics					
		N	Mean	Std. Deviation	Std. Error Mean
Persev	no DD sib	31	0.25	0.15	0.03
	has DD sib	31	0.48	0.21	0.04

Independent Samples Test						
		t-test for Equality of Means				
		t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Persev		-5.081	60	0.000	-0.23	0.05

Conclusions

- Perseveration can distinguish between high- and low- risk ASD infant groups.



Application

- Our task could be used to screen any infant (regardless of a sibling with a developmental disorder) to determine increased perseveration behavior
- Understanding the role that perseveration has in attentional development will allow for earlier treatment for those at a higher risk for attentional difficulties
- Future longitudinal studies will track possible correlations between infant perseveration rates and ASD symptoms