

Report by:

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Attending IMFAR was a great opportunity to gain a better understanding of the vast range of international research related to developmental disabilities and ASD being conducted. Of particular interest to me was an oral presentation by Sarah Shultz, Warren Jones, and Ami Klin, called "Eye-Blinking as an Index of Perceived Stimulus Relevance in Toddlers with Autism Spectrum Disorder", which examined children with autism's blinking behaviours compared to typically-developing children. Previous research has found a relationship between blinking and visual processing in a variety of cognitive tasks. Specifically, research indicates that when individuals are processing important visual information they will frequently unconsciously inhibit, or stop blinking. Thus, when individuals inhibit their blinks (or a decrease or cessation of blinking; blinking inhibition index), it indicates that they are processing visual information that they perceive as relevant or important. Using this blinking inhibition index, the present research was aimed to: 1) examine whether children with autism and typically developing children differ in their blinking behaviours (such as their blinking rate); and 2) investigate if any group differences exist in the timing of blink inhibition, or when children with autism are inhibiting their blinks, compared to typically-developing children.

Forty-one 2-year olds with autism and 52 age matched typically developing participants took part in the present study. Participant's eye

movements were recorded using an eye-tracker, while watching a variety of short movie clips depicting young children interacting. Movies varied in terms of affective content, that is, they ranged from high (e.g., two children fighting) to low (e.g., two children playing appropriately) in emotional content.

Results indicated that groups did not differ in their blinking rate (i.e., the total number of blinks per minute). Groups did differ, however, in the timing of their blink inhibition. Whereas, typically developing children inhibited their blinking during scenes of greater or higher affect, children with autism's blink inhibition was unrelated to the affect in the movie clip. Taken together, these results suggest that children with autism may not be processing visual important information (e.g., high affect), as demonstrated by their lack of blinking inhibition.

Overall, these researchers concluded that only typically developing children selectively inhibited their blinks during scenes of high affective valence. Further, these results indicate that blinking inhibition is a reliable measure of children's perception of important and relevant visual stimuli.

This presentation, as well as all the others at IMFAR, provided me with invaluable knowledge.