

## Research Results: Effects of Prompting for Eye Contact on Task Performance in Boys with Fragile X Syndrome and Boys with Autism

Fragile X Syndrome and autism are both developmentally disabling conditions that often include the symptom of gaze aversion. Laurie Yankowitz, a doctoral student at Teacher's College, Columbia University, designed her dissertation research to investigate questions related to whether or not prompting for eye contact helps or hinders performance on tasks for these two populations.

Ms. Yankowitz chose a Bingo-like task for the experiment because it allowed her to include subjects with very limited verbal ability, and it tapped skills such as following directions, auditory comprehension, and visual matching that are commonly called upon in school settings. Each subject played 4 different bingo games. For 2 of the games, she sat on the other side of a desk directly across from the subject, and prompted them to look at her before giving each clue. For the other 2 games, she sat on the same side of the desk next to the subject, and without looking at the subject, prompted them "Get ready" instead of "Look at me."

The performance measures included number of first correct responses for each game; total correct responses for each game; total number of incorrect responses given for each game; and frequency of intervals in which an indicator of hyperarousal behavior was observed. Boys with Fragile X Syndrome performed equally well when prompted for eye contact as when not prompted for eye contact. Boys with autism also performed equally well, except that they gave more incorrect responses when prompted for eye contact.

A significant finding involved hyperarousal responses to a game that proved to be more cognitively challenging than the others. For that game, boys with FXS were more hyperaroused than they were for the other games, while boys with autism were less hyperaroused. This provides some intriguing evidence for distinctively different arousal patterns in response to stimuli that taxes cognitive skills. The relationship between increased cognitive challenge and hyperarousal for the FXS group has implications for the need for a strategic approach to address hyperarousal when being asked to engage in challenging tasks.

Ms. Yankowitz cautions that these findings are preliminary and need to be interpreted with caution. Her sample size was small (FXS = 8, autism = 10) and each subject had only 1 session with the experimenter. Ms. Yankowitz conjectures that prompting for eye contact may have more of an effect under different conditions, such as having to produce language, or being asked to perform tasks in the presence of a number of other people.

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