

Title: Study 2 Learning New Words from Overhearing in Children with Autism Spectrum Disorder (ASD)

NCT Number: NCT05192109

Document date: 12/24/2024

The objective of this study was to see whether autistic and non-autistic children learn new words when they are presented via videoconferencing in one of two conditions: as part of speech directly addressed to the child (Addressed condition), as part of speech they overhear (Overheard condition). Children participated in the experimental task in both conditions (within-subject design). The method was a behavioral experiment in which children were exposed to a novel word (e.g., “toma”) in the context of one of three objects. The exposure either occurred with the experimenter looking directly at the child through the webcam (Addressed condition) or looking at another adult (Overheard condition). They were then shown the three objects and given a prompt to identify which object is labeled by the novel word (e.g., “where is the toma?”). Children’s eye gaze was coded as a measure of which object they preferred to look at after the prompt. After a delay of a few minutes, the test was repeated as a measure of retention.

The primary dependent variable reported here is the proportion of time children spend looking at the target object in each condition for each of the first test and the retention test. Track loss data points (that is, data points on which the child’s gaze could not be ascertained) are removed from analysis.

For each of the first test and the retention test, the primary statistical analysis involves asking whether children’s preference to look at the target is significantly greater in one condition than the other, and/or for one group or the other. Mixed-effects regression analyses are used with the proportion—empirical-logit transformed—of target looking as the dependent measure, participant as random effect, and condition and group and their interaction as fixed effects. If the interaction is significant, post-hoc testing using estimated marginal means is used.