

The labeling effect in autistic children

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Introduction. Children (10mths-to-11yo) presented with two objects that receive the same label expect that such objects share the same sound. Such expectation is reversed when objects receive distinct labels. Linguistic labels thus induce children to generate concepts. We replicated an experiment by Graham et al. (2013), but with autistic children, who could present difficulties in category generalization and mentalization.

Methods. 30 autistic children (3-to-9yo) were divided into two groups: same label (SL) and distinct label (DL). Children were presented with pairs of unknown objects in three conditions: [Predicted]: Two objects made the same sound; [Unpredicted]: The second object was muted; [Baseline]: both objects were muted and the experimenter didn't perform any action. Children in the DL group received the second object with a different label. Number of imitated actions on the second object (from the experimenter actions on the first one) were counted, and two conditions were compared: [Unpredicted SL], where expectations are violated because the second object is disabled, and [Predicted DL], where expectations are not violated because the second object (with a distinct label) is disabled. Expectancy violation in SL indicates generalization.

Results. We fitted a mixed effects model with number of actions on the test object as a dependent variable, group (SL / DL), condition (Baseline / Predicted / Unpredicted) and an interaction between group and condition as explanatory variables, and participant and label (nonceword) as random effects, which yielded a main effect of group ($p = 0.009$). In pairwise comparisons, we also encountered a significant difference between Unpredicted SL and Predicted DL ($p = 0.004$), which replicates the results by Graham et al.

Conclusions. Results suggest that autistic children are sensitive to the cognitive effects of acts of labeling.

References

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