

Implicit cross-situational word learning in children with and without developmental language disorder

Iris Broedelet; University of Amsterdam

Paul Boersma; University of Amsterdam

Judith Rispen; University of Amsterdam

Research indicates that a deficit in statistical learning underlies the difficulties in language acquisition in children with developmental language disorder (DLD). We investigated whether children with and without DLD are able to learn new word-referent pairs based on cross-situational statistics in an implicit task, and whether this ability is related to lexical-semantic skills in children with DLD. Every learning trial in the task was in itself ambiguous: two pictures of unknown objects were shown concurrently during which two novel words were played consecutively. As every word occurred with its correct referent consistently, children could learn the word-referent pairs across trials. Eye-movements were measured during the learning phase. Results show that both groups of children learned word-referent pairs, but the TD children significantly outperformed the children with DLD ($p < 0.001$). Preliminary analyses of the eye-tracking data suggest that the children with DLD looked less reliably to the target picture. Finally, regression analyses show that cross-situational word learning ability is significantly related to lexical-semantic knowledge in children with DLD. This work was supported by NWO (Netherlands organization for scientific research).