Humans mostly rely on social references (e.g. gaze direction of the speaker) when learning new words (Bloom, 2000). This is particularly important when there is more than one possible referents in the surrounding. By the age of 14 months, infants can already use an adult’s direction of gaze to distinguish the referent of a novel word, even when other unknown objects are present (Paulus & Fikkert, in press). Children with autism tend to fail this task, even at 9 years of age (Akechi, et al., 2010). However, when the saliency of the referent is increased (e.g. by wiggling), the percentage of autistic children who choose the correct referent increases significantly. On the other hand, if the saliency of a distractor is increased, typically developing infants manage to ignore it and rely on the social cue to choose the correct referent starting at 24 months of age (Moore, et al., 1999).

In the current study, healthy (N=17) and autistic (N=13) adults are tested with a word-learning paradigm, employing eye-tracking methodology. An animated cartoon actor is presented with two novel objects, then she looks at one of them and gives it a novel name. In one condition, both objects are static in the labeling scene. In the other condition, the opposite object starts wiggling to increase its saliency, to create a conflict between social and saliency cues. Afterwards, a selection screen with the two novel objects and two additional distractors appears, and participants are instructed to look at the object that was named. Longer looking time to the correct object in the selection screen would indicate a correct name-object association, which requires a correct processing of the direction of gaze. Preliminary results show that both healthy and autistic adults choose the correct referent most of the time, even when the distractor’s saliency is increased. This suggests that the ability to learn new words by referring to the direction of gaze develops in autistic people, but it is much delayed, compared to their typically developing peers.

Monday, June 24th 2013, 12:00h (sharp)
Radboud University Nijmegen, Erasmus Building Room 2.15A