

## Danish perspective-mixing particles: typically developing children and children with autism

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Danish dialogue particles allow speakers to signal the relationship between their own understanding of a state of affairs and the recipients' presumed understanding of the same state of affairs. The class of dialogue particles comprises nine optional, non-focusable monomorphemic words which point to intersubjective configurations of shared knowledge, conflicting viewpoints or different balances in subjects' access to information (Davidsen-Nielsen 1996; Christensen 2006). Examples of the particles are *jo* (shared knowledge, presupposed agreement), *da* (shared knowledge, opposing viewpoints) and *vel* (speaker uncertainty, privileged recipient knowledge). To learn to use dialogue particles in a conventional manner requires sophisticated perspective-taking skills as children must be able to represent a proposition from both their own point of view and another person's point of view simultaneously. Furthermore, the acquisition of dialogue particles may be especially taxing because of their perceptual inconspicuousness: the particles are stressless monosyllables in non-salient utterance-medial position.

Typically developing children are highly attentive to others' mental states (Tomasello & Rakoczy 2003). By contrast, children with autism are described as having impaired sensitivity to others' mental states (Baron-Cohen, Leslie, Frith 1985; Happé 1994) and can therefore be expected to have difficulties acquiring a conventional understanding of dialogue particles. We compare mastery of dialogue particles in children with different cognitive profiles by means of a newly developed gap-filling test that requires participants to insert *jo*, *da*, and *vel* into small stories presenting varying configurations of perspectives (Boeg Thomsen 2012; Engberg-Pedersen 2008; Engberg-Pedersen & Boeg Thomsen in press). To complete each story adequately, participants must attribute mental states to two characters simultaneously and choose the conventional perspective-mixing particle.

A comparison of 164 typically developing Danish children's results on the test with 60 adults' results suggests that the majority of 11-to-14-year-olds follow adult-like usage norms for the three particles. The children demonstrated understanding of the complex meaning of each individual particle and sensitivity to the ways in which constellations of character perspectives shifted in the narratives. The comparison with the performance of Danish same-age, verbal children with autism on the gap-filling test showed that the children with autism chose the most appropriate dialogue particle significantly less often than the typically developing children. There was a trend towards a gender difference among the typically developing children, but a comparison of the boys only with different cognitive profiles also showed a significant difference.

### References

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