

Mental representation and language access:

Evidence from deaf children with different
language backgrounds

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Avhandling för avläggande av filosofie doktorsexamen i psykologi, som med vederbörligt tillstånd av samhällsvetenskapliga fakulteten vid Göteborgs universitet kommer att offentligt försvaras fredagen den 28 september 2007, kl. 10.00 i sal F1, Psykologiska institutionen, Haraldsgatan 1, Göteborg.

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Abstract

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The present work investigated the relationship between mentalizing skills on the one hand and different language experiences and cognitive characteristics on the other hand. The aim of *study I* was to determine whether access to sign language as the medium of instruction in school influences mentalizing abilities among deaf children. The deaf children recruited either grew up in deaf or hearing families. Some of the children attended a school following the oralist method, another group of children attended a school with a bilingual approach. In *study II* the effects of working memory skills on the relation between language of instruction and understanding false-belief were examined. *Study III* aimed at testing if differences in mentalizing skills between different groups of deaf children, as reported previously, were mirrored in corresponding differences in executive functions. *Study IV* was designed to examine the relation between hearing children's mentalizing skills and their caregivers' insight into their children's social reasoning. Results from *study I* indicated that, when it comes to mentalizing abilities, the deaf children of deaf parents, i.e. so-called, native signers, who attend a school prioritizing education in sign language outperform the native signers from an oralist school and the deaf children from hearing homes attending either a bilingual or an oralist school. Taken together, *studies II and III* revealed that the deaf children's mentalizing abilities were not dependent on individual differences in verbal working memory or executive functioning skills such as inhibitory control or attentional flexibility. There were no differences regarding results on the digit span task between the bilingual and the oralist native signers, or between the bilingual and the oralist late signers. There were no differences between any of the deaf or hearing groups on the two inhibitory control tasks and all the deaf groups performed equally well on the Wisconsin card sorting task. The main finding of *study IV* was that mothers who were more accurate in predicting their children's reasoning in distressing social situations had children who had higher mentalizing scores. This relation still remained after chronological age and receptive vocabulary scores were controlled for. Taken together, the results emphasize the importance of continuous access to fluent conversations in a shared language between the child and those closest to him or her, both at home and at school, for the development of understanding other minds.

Keywords: mentalizing skills, theory-of-mind, social interaction, deafness, sign language

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