# Theory of mind in DHH children is **delayed**, but they do **catch up** eventually

# Theory of mind development and its relation to social functioning in 3- to 10-year-old DHH children

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Group 3-5 years of age



#### Introduction

Despite enrollment in family-centered early intervention, children with hearing loss are at increased risk of social and behavioral problems. Theory of Mind (ToM) deficits may lie at the root of these problems. ToM denotes the ability to attribute mental states (e.g., desires, beliefs) to others and the ability to understand that other people's actions are governed by their mental states, which may differ from one's own.

#### **Objectives**

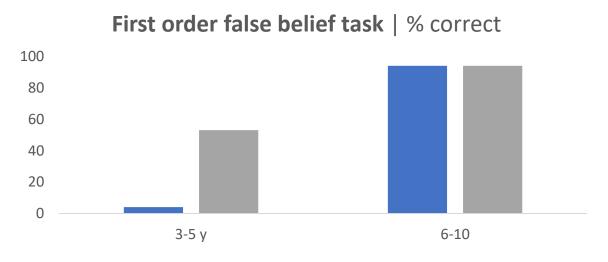
To examine ToM development and to establish whether and when DHH children catch up to their hearing peers. In addition, relations between ToM and indices of social and behavioral problems were examined.

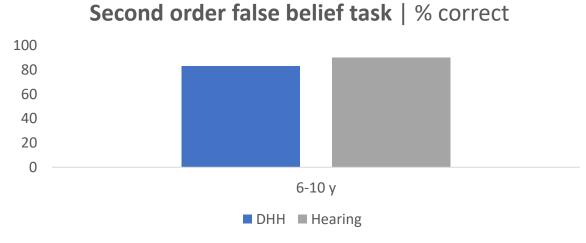
# Method

ToM was assessed with a desires task, a first-order, and a second-order false belief task (Ketelaar et al., 2012) in two age groups: 3-5 & 6-10 years of age. Parents reported on their children's social and behavioral problems through the Peer problems scale of the Early Childhood Inventory (ECI; Gadow & Sprafkin, 1997) and the Prosocial scale of the Strengths and Difficulties Questionnaire (SDQ; Goodman, 1997).

# Results

ToM was delayed in younger, but not in older DHH children. No group differences re level of peer problems and prosocial behavior. Higher levels of ToM skills were related to lower levels of peer problems.





# Discussion

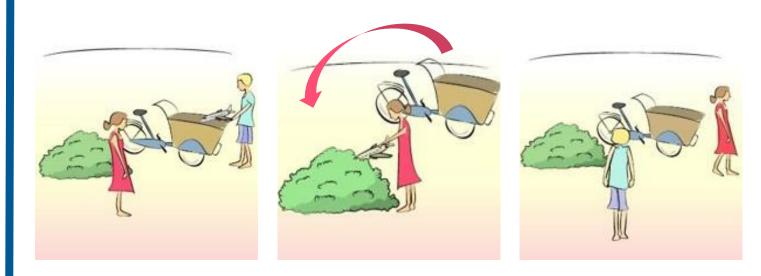
DHH children eventually catch up to their hearing peers regarding ToM skills. Neonatal hearing screening and subsequent early intervention may have contributed to these outcomes. Yet, continued regarding support ToM development remains important for young DHH children. The parent course 'Taal voor ToM' (Language for ToM) seems promising in this respect. This teaches parents how to use mental state language in everyday interactions with their children. Parental use of mental state language should promote children's ToM development. The effectiveness of this course is currently being evaluated.

Age (y;m)	4;7 (3;0 – 6;0)	4;1 (3;1 – 6;0)
Male (%)	58.8	55.1

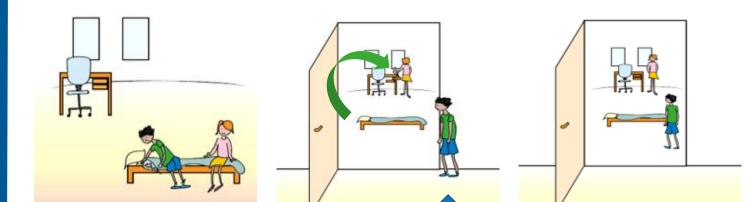
#### Group 6-10 years of age

	DHH (n = 47)	Hearing (n = 201)
Age (y;m)	8;2 (6;0 – 10;10)	7;9 (6;0 – 10;5)
Male (%)	53.2	46.3

#### Instruments



# First-order false belief task



Second-order false belief task



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