



Universiteit
Leiden
The Netherlands

The link between hearing loss, language, and social functioning in childhood

Netten, A.P.

Citation

Netten, A. P. (2017, April 12). *The link between hearing loss, language, and social functioning in childhood*. Retrieved from <https://hdl.handle.net/1887/47848>

Version: Not Applicable (or Unknown)

License: [Licence agreement concerning inclusion of doctoral thesis in the Institutional Repository of the University of Leiden](#)

Downloaded from: <https://hdl.handle.net/1887/47848>

Note: To cite this publication please use the final published version (if applicable).

Cover Page



Universiteit Leiden



The handle <http://hdl.handle.net/1887/47848> holds various files of this Leiden University dissertation

Author: Netten, Anouk

Title: The link between hearing loss, language, and social functioning in childhood

Issue Date: 2017-04-12

THE LINK BETWEEN
HEARING LOSS,
LANGUAGE,
AND **SOCIAL**
FUNCTIONING
IN CHILDHOOD

ANOUK NETTEN

ISBN 978-90-9030190-7

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system of any nature, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, included a complete or partial transcription, without the prior written permission of the copyright owner.

Cover and layout: wenz iD || Wendy Schoneveld
Drukwerk: Gildeprint, Enschede

The studies reported in this thesis were conducted by the Department of Otorhinolaryngology and Head & Neck Surgery (Leiden University Medical Center), the Department of Developmental Psychology (Leiden University), the Dutch Foundation for the Deaf and Hard of Hearing Child (Amsterdam), the Department of Clinical Epidemiology (Leiden University Medical Center), and the Department of Social Pediatrics (Leiden University Medical Center).

This research was funded by:

Stichting het Heinsius-Houbolt fonds - The Netherlands Organisation for Scientific Research (NWO), no. 452-07-004 (VIDI grant) to C. Rieffe - Wieger Wakinoer fonds - Willem-Alexander Kinderfonds – ZonMw – Nederlandse Stichting voor het Dove en Slechthorende Kind (NSDSK).

This thesis was financially supported by: Advanced Bionics, Allergy Therapeutics, ALK, Beter Horen, Carl Zeis, Cochlear, Daleco Pharma, Dos Medical, EmiD audiologische apparatuur, Entercare, Meda Pharma, MED-EL, Meditop Medical Products, NSDSK, Oticon Medical, Phonak, Schoonenberg, and Specsavers



THE LINK BETWEEN
HEARING LOSS,
LANGUAGE,
AND **SOCIAL**
FUNCTIONING
IN CHILDHOOD

Proefschrift

ter verkrijging van de graad van Doctor
aan de Universiteit Leiden, op gezag van
Rector Magnificus prof.mr. C.J.J.M. Stolker,
volgens besluit van het College voor Promoties
te verdedigen op woensdag 12 april 2017
klokke 15.00 uur

door

Anouk Paulien Netten

geboren te Bathmen in 1986

Promotores: Prof. dr. ir. J.H.M. Frijns
Prof. dr. C. Rieffe

Copromotor: Dr. ir. W. Soede

Leden promotiecommissie: Prof. dr. F.W. Dekker
Prof. dr. P.P.B. van Benthem
Prof. dr. A. van Wieringen (KU Leuven, België)
Prof. dr. J.T. Swaab-Barneveld

CONTENTS

| | | |
|-----------|---|-----|
| CHAPTER 1 | General Introduction and outline of this thesis | 9 |
| CHAPTER 2 | Missing Data in the Field of Otorhinolaryngology and Head & Neck Surgery: Need for Improvement | 25 |
| CHAPTER 3 | Early Identification: Language Skills and Social Functioning in Deaf and Hard Of Hearing Preschool Children | 39 |
| CHAPTER 4 | Terrible Twos or Early Signs of Psychopathology? Developmental Patterns in Early Identified Preschoolers with Cochlear Implants Compared to Normal Hearing Controls | 55 |
| CHAPTER 5 | Can You Hear What I Think? Theory of Mind In Young Children with Moderate Hearing Loss | 73 |
| CHAPTER 6 | Low Empathy in Deaf and Hard of Hearing (Pre)Adolescents Compared to Normal Hearing Controls | 97 |
| CHAPTER 7 | Outcomes and General Discussion | 117 |
| CHAPTER 8 | Nederlandse Samenvatting | 131 |

APPENDICES

| | |
|------------------------------|-----|
| Abbreviations | 138 |
| List of Contributing Authors | 140 |
| List of Publications | 142 |
| Acknowledgements | 144 |
| Curriculum Vitae | 146 |

*Vertrouwen is het grootste bewijs van liefde
(Joyce Brothers)*

Voor mijn ouders

