

HAYO TERBAND - CURRICULUM VITAE

General information

Name: Hayo Terband
Date of birth: 25-08-1976
Place of birth: Rotterdam, the Netherlands
Nationality: Dutch
Marital status: Married to Maria Gabriela
Children: Aafke, Douwe, Jochem & Femke
Hobbies: Cooking, mountain sports, music
Residence: Teunisbloemlaan 31, 3452 CA Vleuten, the Netherlands
Contact: +31 6 456 87 148; hayo.terband@gmail.com



Education

2006 – 2011 **PhD Medical Sciences**, University of Groningen.
2004 – 2006 **MA Language- and Speech Technology**, Utrecht University.
2003 – 2006 **BA Phonetics**, Utrecht University.
1994 – 2000 **LLM International Law**, Utrecht University.

Employment

2018 – present **Assistant professor**, department of Language, Literature & Communication, Faculty of Humanities, Utrecht Institute of Linguistics OTS & University College Utrecht, Utrecht University.
2017 – 2018 **Visiting assistant professor**, department of English, College of Arts & Sciences, American University of Sharjah.
2017 – 2018 **Research affiliate**, Utrecht Institute of Linguistics OTS, Utrecht University.
2015 – 2017 **Assistant professor**, department of Language, Literature & Communication, Faculty of Humanities & Utrecht Institute of Linguistics OTS, Utrecht University.
2012 – 2015 **Researcher**, Utrecht Institute of Linguistics OTS, Utrecht University.
2011 – 2014 **Researcher**, department of Medical Psychology/ENT, Radboud University Nijmegen Medical Centre & Centre for Language and Cognition, University of Groningen.
2006 – 2011 **Junior researcher/PhD-candidate**, department of Medical Psychology/ENT, Radboud University Nijmegen Medical Centre, from March 2010 Research School of Behavioural and Cognitive Neurosciences, University of Groningen.
2001 – 2006 **Various legal advisory positions**, municipality of Oldebroek & AXA Leven N.V.

Research

Awarded grants

- 2017 **Damsté – Terpstra fund** (co-applicant; €6.100) "ICS-digital; a multilingual app version of the Intelligibility in Context Scale".
- 2015 **HU University of Applied Sciences Utrecht;** NWO – Doctoral Grant for Teachers (co-applicant; €192.550; PhD voucher Anniek van Doornik) "SPEECH SPraakontwikkelingsstoornissen En de Ernst van de Communicatieve Handicap (Speech Sound Disorders and the severity of the communicative handicap)."
- 2015 **Dynamics of Youth** Utrecht University (principal-investigator; €75.000; strategic theme seed money fund). "When language fails: communication skills as a predictor of behavioural problems in children and adolescents". Project nr. SM.DoY.2015.7.T.
- 2014 **UiL – OTS Equipment Fund** (principal-investigator; €8.500; internal grant). Six-month rental of a 3D Electromagnetic Articulograph for the "Control parameters of phonological cues"-project.
- 2012 **Dutch Rehabilitation Fund** (principal-investigator; €50.000). "Clinical implementation of process-oriented diagnostics and treatment planning of complex sensorimotor disorders in children". Project nr. 2011/0165-060.
- 2012 **NWO – VENI** (principal-investigator; €247.000). "Modelling processing deficits in developmental speech sound disorders". Project nr. 275-89-016.
- 2008 **Fulbright** (\$6.000). Six-month research visit to the Department of Cognitive and Neural Systems, Boston University.

Brief summary of projects

- 2016 – present **SPEECH: Speech production disorders and the severity of the communicative handicap.** Development of a severity index of childhood speech sound disorders addressing the ICF levels of Body Functions, Activities and Participation.
- 2015 – 2016 **When language fails: Communication skills as a predictor of behavioural problems in children and adolescents.** Development of a tablet game for children featuring different scenarios of communication breakdown (corresponding to different cognitive-linguistic levels) to assess the children's behavioural response.
- 2014 – present **Control parameters of phonological cues.** 3D kinematic data collected. This project combines measurements of the e.g. perceptual weighting of acoustical cues of phonological contrasts with acoustical and articulatory measurements (EMA & EMG) of the production of those contrasts.
- 2013 – present **Computer Articulation Instrument (CAI).** Development and validation of a computer-application comprising a norm-referenced articulation test.
- 2012 – 2016 **Modelling processing deficits in developmental speech sound disorders.** Research Associate (3 years 1 fte). This project investigated which neurocognitive processes cause some children to experience problems in learning to speak with a unique approach combining behavioural experiments with neurocomputational modelling.
- 2012 **Speech production in adults with intellectual disabilities: Assessment and intervention of dysfluencies and speech intelligibility.** Research Associate (2 months 0.7 fte). This project specified the speech characteristics underlying poor intelligibility and reduced fluency in adults with ID and formulated and evaluated a therapy program.

- 2011 – 2016 **Development of a process oriented method for diagnosis and treatment planning of developmental speech disorders.** Research Associate (3 years 0.1 fte). This collaboration with several Dutch Universities of Applied Sciences (HU, Fontys, and HAN) is the first detailed individualistic, process-oriented approach to speech disorders.
- 2011 **Assessment of movement stability in children with a variety of different developmental speech disorders.** Research Associate (10 months 0.1 fte). 3D kinematic data collected in a student project. This work was the first to investigate articulatory variability in the lateral (left-to-right) plane.
- 2009 – 2011 **Aging-related changes in speech rate and control strategies.** 2D kinematic data collected in a student project. This work ruled out the speed/accuracy trade-off strategy in elderly speakers and proposed a strategy aimed at facilitating closed loop control.
- 2006 – 2011 **Tracing back the neurological deficits underlying Childhood Apraxia of Speech.** PhD-project (5 years 0.8 fte). This project was the first to utilise neurocomputational modelling and simulate speech disorders and to combine and quantitatively compare computer simulations and behavioural experiments.
- 2005 – 2006 **Development and validation of a method for the automated measurement of the speech reception threshold in noise.** Internship at TNO Human Factors, Soesterberg (1 year 0.5 fte). This work constituted the first automated sentence based hearing test.

International collaboration

- 2011 – present **Temple University, USA.** Collaboration with dr. Edwin Maas (previously at University of Arizona, USA) on adult apraxia of speech (neurocomputational modelling of hypothesized impairments to generate quantitative predictions that can be tested in behavioural experiments) & diagnosis and treatment planning of developmental speech disorders.
- 2008 – present **Boston University, USA.** Collaboration with prof. Frank Guenther on neurocomputational modelling of speech disorders. *Including a six-month visit (November 2008 – April 2009) on a Fulbright grant.*
- 2008 – present **University of Toronto, Canada.** Collaboration with prof. Pascal van Lieshout on electromagnetic articulography. *Short stay in 2009.*

Teaching

Teaching qualifications

- 2014 – 2017 **Basic University Teaching Qualification,** Utrecht University.
- 21/03/2017 Teaching training “Accreditation”, University Medical Centre Utrecht.
- 02/09/2016 Teaching training “Reinforcing collaboration”, University Medical Centre Utrecht.
- 31/05/2016 Teaching training “Interdisciplinary Education”, University Medical Centre Utrecht.
- 20/05/2015 Teaching training “Learning objectives”, University Medical Centre Utrecht.

Courses

- 2020 – present **Experimental psycholinguistics** (BA Linguistics/BSc Artificial Intelligence; with dr. Shalom Zuckerman & dr. Jakub Dotlacil), Utrecht University.
- 2019 – present **Language and speech pathology** (ReMA Linguistics), Utrecht University.
- 2019 – present **Capstone Course: Research, Writing and Reflection** (BA Linguistics; with dr. Frank Drijkoningen), Utrecht University.
- 2019 – present **Speech production and perception** (BA/BSc Liberal arts & sciences), University College Utrecht.
- 2018 – present **Methods & Statistics 1** (BA Linguistics; with dr. Marijn Struiksmā), Utrecht University.
- 2018 – present **Phonetics** (BA Linguistics), Utrecht University.
- 2018 – present
2015 – 2017 **Clinical linguistics & phonetics** (BA Linguistics; with dr. Annemarie Kerkhoff/Brigitta Keij/ dr. Tessel Boerma), Utrecht University.
- 2018 – 2020
2014 – 2015 **Foundations of sound structure & language acquisition** (ReMA Linguistics; with prof. dr. René Kager), Utrecht University.
- 2018 – 2019 **Research in context** (BA/BSc Liberal arts & sciences), University College Utrecht.
- 2013 – 2017
2018 – 2019 **Speech production and perception** (MSc Clinical Language, Speech and Hearing Sciences & ReMA Linguistics), Utrecht University.
- 2018 – 2019 **Research methods in linguistics** (BA Language and cultural studies; with dr. Margot van den Berg), Utrecht University.
- 2017 – 2018 **Language Acquisition and Development** (MA TESOL), American University of Sharjah.
- 2017 – 2018 **Advanced Academic Writing** (undergraduate), American University of Sharjah.
- 2017 – 2018 **Public Speaking** (undergraduate), American University of Sharjah.
- 2015 – 2017 **Academic skills** (premaster MSc Clinical Health Sciences), University Medical Centre Utrecht.
- 2015 – 2017 **Writing assignment Fundamentals of Neuroscience and Cognition** (MSc Neuroscience and Cognition), Utrecht University.
- 2013 – 2017 **Workshop “How to write a research grant proposal?”** (yearly workshop ReMA Linguistics), Utrecht University.
- 2013 – 2017 **Workshop “How to create and present a scientific poster?”** (yearly workshop ReMA Linguistics), Utrecht University.
- 2011 – 2014 **Practical Phonetics** (BA Linguistics), Utrecht University.

Thesis supervision

- 2016 – present Co-supervisor Anniek van Doornik-van der Zee, **PhD Clinical Language, Speech and Hearing Sciences**, Utrecht University: “SPEECH SpraakProductiestoornissen en de Ernst van de Communicatieve Handicap”.
- 2014 – present Co-supervisor Sanne Diepeveen, **PhD Medical Sciences**, Radboud University Nijmegen Medical Centre: “Diagnosis and treatment of paediatric speech disorders”.

- 2011 – 2013 Co-supervisor Marjolein Coppens-Hofman, **PhD Medical Sciences**, Radboud University Nijmegen Medical Centre: “Communication in adults with intellectual disabilities”.
- 2007 – present Yearly 1-3 BA, MA, MSc-level theses in the areas of Linguistics and Speech- and Language Pathology, Radboud University Nijmegen, University of Groningen, and Utrecht University.

Departmental service

- 2018 – present **Member of Program committee** MSc Clinical Health Sciences (Track Clinical Language, Speech and Hearing Sciences), University Medical Centre Utrecht.
- 2015 – 2017
- 2018 – 2020 **Coordination Minor Clinical Language, Speech and Hearing Sciences**, BA Linguistics, Utrecht University.
- 2018 – 2020 **Coordination clinical internships** BA Linguistics (Minor Clinical Language, Speech and Hearing Sciences), Utrecht University.
- 2016 – 2017
- 2016 – 2017 **Member of Curriculum committee** MSc Clinical Health Sciences, University Medical Centre Utrecht.
- 2014 – 2017 **Coordination Matching & Information events** BA Linguistics, Utrecht University.
- 2013 – 2017 **Member of Program committee** annual workshop Experimental Methods in Language Acquisition Research (EMLAR), Utrecht University.

Professional service

- 2020 – present **Member of ANCDs pediatric motor speech disorders committee.**
- 2017 – 2020 **Member of ANCDs Writing Committee on Childhood Apraxia of Speech.**
- 2006 – present **Member & co-chair (2017; 2021) of Organization committee 5th, 6th, 7th, & 8th International Conference on Speech Motor Control** held 2006, 2011, 2017, and to be held 2021 (www.slp-nijmegen.nl/smc2021).
- 2012 – 2017 **Member of Organization committee EMLAR X-XIII**, annual workshop Experimental Methods in Language Acquisition Research held in April in Utrecht, the Netherlands (<http://www.let.uu.nl/emlar>).

Editorial experience

- 2016 – present **Associate editor** Folia Phoniatica et Logopaedica, section Motor Speech Disorders.
- 2018 – 2019 **Guest editor** Journal of Speech, Language, and Hearing Research, special issue 7th International Conference on Speech Motor Control.
- 2012 – present **Ad hoc reviewer** for o.a., Cortex, Journal of Speech, Language, and Hearing Research, Journal of the Acoustical Society of America, Journal of Communication Disorders, Laboratory Phonology, International Journal of Speech-Language Pathology, Folia Phoniatica et Logopaedica, International Journal of Developmental Disabilities, Disability and Rehabilitation, International Congress of Phonetic Sciences (ICPhS).
- 2011 – present **Journal manager & Editor** (2014 – present) Stem-, Spraak- en Taalpathologie (Dutch peer reviewed journal “Voice-, Speech-, and Language Pathology”; www.sstp.nl).

Languages

Dutch	Native
English	Fluent
French	Good knowledge
German	Good knowledge
Spanish	Basic skills

Programming languages

Matlab	Good knowledge
Delphi Pascal	Good knowledge
R	Basic skills
JAVA	Basic skills

References

Prof. dr. Ben Maassen

Professor of Dyslexia & Clinical Neuropsychology - Centre for Language and Cognition (CLCG) & University Medical Centre, University of Groningen, Groningen, The Netherlands

Email: b.a.m.maassen@rug.nl

Tel.: +31 50 363 5800

Prof. dr. P.H.H.M. van Lieshout

Chair & Professor of Speech science and motor control - Department of Speech-Language Pathology, University of Toronto, Toronto, Canada

Email: p.vanlieshout@utoronto.ca

Tel.: +1 416 946 8552

Prof. dr. F.H. Guenther

Professor of Cognitive and Neural Systems - Department of Cognitive and Neural Systems, Boston University, Boston MA, USA

Email: guenther@cns.bu.edu

Tel.: +1 617 353 9481

Prof. dr. Frank Wijnen

Professor of Psycholinguistics - Department of Languages, Literature and Communication, Faculty of Humanities, Utrecht University, Utrecht, the Netherlands

Email: f.n.k.wijnen@uu.nl

Tel.: +31 30 253 6436

Prof. dr. Hugo Quené

Director of Undergraduate Studies & Professor of Quantitative Methods of Empirical Research in the Humanities - Department of Languages, Literature and Communication, Faculty of Humanities, Utrecht University, Utrecht, the Netherlands

Email: h.quene@uu.nl

Tel.: +31 30 253 6070

Publications

Doctoral dissertation

Terband, H. (2011). *Speech motor function in relation to phonology: Neurocomputational modeling of disordered development*. Doctoral dissertation, University of Groningen. ISBN 978-90-367-4749-4 (printed version); ISBN 978-90-367-4798-1 (electronic version).

Peer-reviewed journal publications

Diepeveen, S., van Haaften, L., **Terband, H.**, Van den Engel-Hoek, L., De Swart, B., & Maassen, B. (in press). Maximum Repetition Rate in a large cross-sectional sample of typically developing Dutch-speaking children. *International Journal of Speech-Language Pathology*.

Murray, E., Iuzzini, J., Maas, E., **Terband, H.**, & Ballard, K. (2020). Diagnosis of Childhood Apraxia of Speech compared to other Speech Sound Disorders: A Systematic Review. *American Journal of Speech-Language Pathology*. DOI: 10.1044/2020_AJSLP-20-00063

Diepeveen, S., van Haaften, L., **Terband, H.**, De Swart, B., & Maassen, B. (2020). Clinical Reasoning for Speech Sound Disorders: Diagnosis and Intervention in Speech-Language Pathologists' Daily Practice. *American Journal of Speech-Language Pathology*. DOI: 10.1044/2020_AJSLP-19-00040

van Brenk, F. & **Terband, H.** (2020). Individual differences in compensatory and adaptive responses to real-time formant shifts in adults and children. *Journal of the Acoustical Society of America*, 147, 2261. DOI: 10.1121/10.0001018

Terband, H., Rodd, J., & Maas, E. (2019). Testing hypotheses about the underlying deficit of apraxia of speech (AOS) through computational neural modelling with the DIVA model. *International Journal of Speech-Language Pathology*. DOI: 10.1080/17549507.2019.1669711

Maassen, B., **Terband, H.**, Maas, E., & Namasivayam, A. (2019). Preface to the Special Issue: Select Papers from the 7th International Conference on Speech Motor Control. *Journal of Speech, Language and Hearing Research*, 62(8S), 2923–2925. DOI: 10.1044/2019_JSLHR-S-CSMC7-19-0247

Terband, H., Namasivayam, A., van Brenk, F., Diepeveen, S., Mailend, M-L., Maas, E., Van Lieshout, P. & Maassen, B. (2019). Assessment of Childhood Apraxia of Speech: a review/tutorial of objective measurement techniques. *Journal of Speech, Language and Hearing Research*, 62(8S), 2999–3032. DOI: 10.1044/2019_JSLHR-S-CSMC7-19-0214

Diepeveen, S., van Haaften, L., **Terband, H.**, De Swart, B., & Maassen, B. (2019). A standardized protocol for Maximum Repetition Rate assessment in children. *Folia Phoniatica et Logopaedica*, 71, 238–250. DOI: 10.1159/000500305

Terband, H., Maassen, B. & Maas, E. (2019). A psycholinguistic framework for diagnosis and treatment planning of developmental speech disorders. *Folia Phoniatica et Logopaedica*, 71, 216–227. DOI: 10.1159/000499426

van Haaften, L., Diepeveen, S., **Terband, H.**, Vermeij, B., Van den Engel-Hoek, L., De Swart, B., & Maassen, B. (2019). Clinical validation of the Computer Articulation Instrument (CAI). *American Journal of Speech-Language Pathology*, 28(2S):844-856. DOI: 10.1044/2018_AJSLP-MS18-18-0112

Terband, H., Spruit, M., & Maassen, B. (2018). Speech impairment in children with Fetal Alcohol Spectrum Disorders. *American Journal of Speech-Language Pathology*, 27, 1405–1425.

van Doornik, J.C., Gerrits, E., McLeod, S., & **Terband, H.** (2018). Impact of communication partner familiarity and speech accuracy on parents' ratings of their child for the Intelligibility in Context Scale: Dutch. *International Journal of Speech-Language Pathology*, 20(3), 350-360.

- Terband, H.**, Coppens-Hofman, M.C., Reffeltrath, M., & Maassen, B. (2018). Effectiveness of speech therapy in adults with intellectual disabilities. *Journal of Applied Research in Intellectual Disabilities*, 31(2), 236-248.
- Coppens-Hofman, M.C., **Terband, H.**, Snik, A.F.M., & Maassen, B. (2016). Speech characteristics and intelligibility in adults with mild and moderate intellectual disabilities. *Folia Phoniatica et Logopaedica*, 68, 175-182.
- Terband, H.**, Maassen, B., & Maas, E. (2016). Klinisch Forum: Een procesgerichte aanpak van differentiaaldiagnose en therapieplanning bij spraakontwikkelingsstoornissen. *Stem- Spraak- Taalpathologie*, 21, 1-31. (in Dutch)
- Nijssen, M., van Brenk, F. & **Terband, H.** (2015). Procesanalyse van spraakproductie bij kinderen met spraakontwikkelingsstoornissen. *Stem- Spraak- Taalpathologie*, 20, 216-237. (in Dutch)
- Nijland, L., **Terband, H.**, & Maassen, B. (2015). Cognitive functions in Childhood Apraxia of Speech. *Journal of Speech, Language and Hearing Research*, 58, 550-565.
- Terband, H.** & van Brenk, F. (2015). Compensatory and adaptive responses to real-time formant shifts in adults and children. *Proceedings of the 18th International Congress of Phonetic Sciences (ICPhS 2015)*, Glasgow, August 10-14.
- Terband, H.**, Rodd, J., & Maas, E. (2015). Simulations of feedforward and feedback control in apraxia of speech (AOS): Effects of noise masking on vowel production in the DIVA model. *Proceedings of the 18th International Congress of Phonetic Sciences (ICPhS 2015)*, Glasgow, August 10-14.
- Terband, H.**, van Brenk, F., & van Doornik-van der Zee, J.C. (2014). Auditory feedback perturbation in children with developmental speech disorders. *Journal of Communication Disorders*, 51, 64-77.
- Terband, H.**, Maassen, B., Guenther, F. H., & Brumberg, J. (2014). Auditory-Motor Interactions in Pediatric Motor Speech Disorders: Neurocomputational Modeling of Disordered Development. *Journal of Communication Disorders*, 47, 17-33.
- van Brenk, F., **Terband, H.**, van Lieshout, P., Lowit, A., & Maassen, B. (2014). Rate-related kinematic changes in younger and older adults. *Folia Phoniatica et Logopaedica*, 65, 69-77.
- Coppens-Hofman, M.C., **Terband, H.**, Maassen, B., van Schrojenstein Lantman-De Valk H.M.J., van Zaalen-op 't Hof, Y., & Snik, A.F.M. (2013). Dysfluencies in the speech of adults with intellectual disabilities and reported speech difficulties. *Journal of Communication Disorders*, 46, 484-494.
- Terband, H.**, van Zaalen, Y., & Maassen, B. (2012). Lateral jaw stability in children with developmental speech disorders. *Journal of Medical Speech-Language Pathology*, 20(4), 112-118.
- Terband, H.** & Maassen, B. (2012). Spraakontwikkelingsstoornissen: Van symptoom- naar procesdiagnostiek, *Logopedie en Phoniatrie*, 7-8, 229-234.(in Dutch; invited paper)
- Terband, H.**, Maassen, B., Van Lieshout, P., & Nijland, L. (2011). Stability and composition of functional synergies for speech movements in children with developmental speech disorders. *Journal of Communication Disorders*, 44(1), 59-74.
- Terband, H.**, & Maassen, B. (2010). Speech motor development in Childhood Apraxia of Speech (CAS): generating testable hypotheses by neurocomputational modeling. *Folia Phoniatica et Logopaedica*, 62, 134-142.
- Maassen, B., **Terband, H.**, & Nijland, L. (2009). Modellen van spraakontwikkelingsdyspraxie. *Stem- Spraak- Taalpathologie*, 16(03), 137-154.(in Dutch)
- Terband, H.**, Maassen, B., Guenther, F. H., & Brumberg, J. (2009). Computational neural modeling of Childhood Apraxia of Speech (CAS). *Journal of Speech, Language and Hearing Research*, 52(6), 1595-1609.

van Brenk, F., **Terband, H.**, Maassen, B., van Lieshout, P., & Lowit, A. (2009). An analysis of speech rate strategies in aging. *Proceedings of Interspeech 2009*, 792-795.

Terband, H., van Brenk, F., van Lieshout, P., Nijand, L. & Maassen, B. (2009). Stability and composition of functional synergies for speech movements in children and adults. *Proceedings of Interspeech 2009*, 788-791.

Terband, H. & Drullman, R. (2008). Study of an automated procedure for a Dutch sentence test for the measurement of the speech reception threshold in noise. *Journal of the Acoustical Society of America*, 124(5), 3225-3234.

Clinical instruments and applications

Maassen, B., van Haaften, L., Diepeveen, S., van den Engel-Hoek, L., Veenker, Th., **Terband, H.**, & De Swart, B. (2019). *Het Computer Articulatie Instrument (CAI)*. Amsterdam: Boom Testuitgevers.

McLeod, S., Harrison, L. J., & McCormack, J. (2013). *Schaal voor Verstaanbaarheid in de Context [Intelligibility in Context Scale: Dutch]*. (J.C. van Doornik-van der Zee & **H. Terband**, Trans.). Bathurst, NSW, Australia: Charles Sturt University.

Terband, H. & Drullman, R. (2008). *Een automatische methode voor het meten van de spraakverstaanbaarheid*. TNO Human Factors.

Edited books & collections

Maassen, B., **Terband, H.**, Maas, E., & Namasivayam, A. (2019). Special Issue: Select Papers From the 7th International Conference on Speech Motor Control. *Journal of Speech, Language and Hearing Research*, 62(8S).

van Brenk, F. & **Terband, H.** (Eds.) (2018). Research tutorials door Nederlandstalige onderzoekers in het buitenland II. *Stem- Spraak- Taalpathologie*, 23 (Special issue). (in Dutch)

Maassen, B. & **Terband, H.** (Eds.) (2017). 7th International Conference on Speech Motor Control Groningen: Abstracts. *Stem- Spraak- Taalpathologie*, 21 (Suppl.).

Van Lieshout, P., Maassen, B., & **Terband, H.** (Eds.) (2016). *Speech Motor Control in normal and disordered speech: Future developments in theory and methodology*. Rockville, MD: ASHA.

Terband, H. (Ed.) (2015). Research tutorials door Nederlandstalige onderzoekers in het buitenland. *Stem- Spraak- Taalpathologie*, 20 (Special issue). (in Dutch)

Maassen, B., Van Lieshout, P., & **Terband, H.** (Eds.) (2011). 6th International Conference on Speech Motor Control Groningen: Abstracts. *Stem- Spraak- Taalpathologie*, 17 (Suppl.).

Maassen, B., Van Lieshout, P., & **Terband, H.** (Eds.) (2006). Abstracts 5th International Conference on Speech Motor Control Nijmegen. *Stem- Spraak- Taalpathologie*, 14 (Suppl.).

Book chapters

Terband, H., Maassen, B., & Maas, E. (2016). Toward a model of pediatric speech sound disorders (SSD) for differential diagnosis and therapy planning. In: P. van Lieshout, B. Maassen, and H. Terband (Eds). *Speech Motor Control in normal and disordered speech: Future developments in theory and methodology* (pp. 81-110). Rockville, MD: ASHA.

Maassen, B. & **Terband, H.** (2015), Process-oriented diagnosis of Childhood and adult Apraxia of Speech (CAS & AOS). In: M.A. Reford (Ed). *Handbook of Speech Production* (pp. 331-349). Oxford, UK: Wiley-Blackwell.

- Jonkers, R., **Terband, H.**, & Maassen, B. (2014), The diagnosis and therapy in adult dysarthria and apraxia of speech in the Netherlands. In: A. Lowit and N. Miller (Eds). *Communication Disorders Across Languages: Acquired motor speech disorders* (pp. 156-167). Bristol, UK: Multilingual Matters.
- Maassen, B., Nijland, L., & **Terband, H.** (2010). Developmental models of Childhood Apraxia of Speech. In: B. Maassen and P. van Lieshout (Eds). *Speech motor control: New developments in basic and applied research* (pp. 234-258). Oxford, UK: Oxford University Press.

Selected peer-reviewed conference contributions: talks

- van Doornik, Gerrits, E., McLeod, S., **Terband, H.** & Welbie, M. (2020). Speech-language pathologists' views on the severity of speech sound disorders in children. Paper submitted for Early Childhood Voices Conference 2020, Sidney - online, November 16-20.
- Terband, H.** (2020). Developmental models of childhood speech disorders. Paper presented at the IMPRS Conference 2020: Interdisciplinary Approaches in the Language Sciences, Nijmegen, June 3-5. *Invited speaker.*
- Murray, E., Iuzzini, J., Maas, E., **Terband, H.**, & Ballard, K. (2019). How do we diagnose childhood apraxia of speech versus other speech sound disorders? Answers from a systematic review. Paper presented at the Joint Speech Pathology Australia (SPA) and the New Zealand Speech-language Therapists' Association (NZSTA) Conference, Brisbane, June 2-5, 2019.
- Terband, H.** (2019). The DIVA model and motor speech disorders. Paper presented at the Workshop Motor Speech Disorders: characterizing phonetic speech planning and motor speech programming/execution and their impairments, University of Geneva, January 16-17, 2019. *Invited speaker.*
- Murray, E., Iuzzini, J., Maas, E., **Terband, H.**, & Ballard, K. (2018). Diagnosis of Childhood Apraxia of Speech compared to other Speech Sound Disorders: A Systematic Review. Paper presented at the ASHA Convention 2018, Boston MA, November 15-17, 2018.
- van Doornik, Gerrits, E., **Terband, H.** & McLeod, S. (2018). Self-evaluation of communicative attitude by children with speech sound disorders. Paper presented at the 17th International Clinical Phonetics and Linguistics Association Conference 2018, Malta, October 23-25.
- Lentz, T. & **Terband, H.** (2018). Articulatory strategies to mark prominence in consonants. Paper presented at the Hanyang International Symposium on Phonetics and Cognitive Sciences of Language 2018, Seoul, Korea, May 18-19, 2018.
- Maassen, B., Diepeveen, S., van Haaften, L., **Terband, H.**, Van den Engel-Hoek, L., & De Swart, B. (2018). Clinical validation of the Computer Articulation Instrument (CAI). Paper presented at the Conference on Motor Speech 2018, Savannah GA, February 21-25.
- Terband, H.**, Rodd, J., & Maas, E. (2018). Testing hypotheses about the underlying deficit of apraxia of speech (AOS) through computational neural modelling: Effects of noise masking on vowel production in the DIVA model. Paper presented at the Conference on Motor Speech 2018, Savannah GA, February 21-25.
- Keij, B., Janssen, L., Van der Graaff, J., De Mulder, H., Verhagen, J., & **Terband, H.** (2017). The relation between linguistic skills and problem behaviour in typically developing pre-schoolers. Paper presented at the 18th European Conference on Developmental Psychology, Utrecht, August 29 – September 1.
- van Doornik, J.C., **Terband, H.**, Gerrits, E. & McLeod, S. (2017). Differences in intelligibility ratings by parents of children with and without speech sound disorders using the ICS-NL. Paper presented at the Speech Pathology Australia National Conference 2017, Sydney, May 28-31.

- Terband, H.** (2017). Toward a model of speech development and disorders for diagnosis and treatment planning. Paper presented at the Workshop on Speech Perception and Production across the Lifespan (SPPL) 2017, London, April 26-27. *Keynote speaker (invited)*.
- Terband, H.** (2017). Toward a model of speech development and disorders for diagnosis and treatment planning. Paper presented at the EMLAR XIII, annual workshop Experimental Methods in Language Acquisition Research, Utrecht, the Netherlands, April 19-21. *Invited speaker*.
- Terband, H.** & Spruit, M. (2017). Speech impairment in children with FASD: causes, consequences, clinical profile, and treatment. Paper presented at the 7th International Conference on FASD, Vancouver, March 1-4, 2017.
- Spruit, M, & **Terband, H.** (2016). Speech production disorders in children with FASD. Paper presented at the European Conference on FASD 2016, London, September 12-14.
- Maassen, B., **Terband, H.**, van Haaften, L., Diepeveen, S., & De Swart, B. (2016). The development and standardization of a speech production test for children: The Computer Articulation Instrument (CAI). Paper presented at the Conference on Motor Speech 2016, Newport Beach CA, March 2-6.
- Terband, H.**, Maassen, B., & Coppens-Hofman, M.C. (2015). Effectiveness of speech therapy in adults with intellectual disabilities. Paper presented at the ASHA Convention 2015, Denver CO, November 12-14.
- Maassen, B., van Haaften, L., Diepeveen, S., De Swart, B., & **Terband, H.** (2015). Construction and Evaluation of a Computer Articulation Instrument (CAI) for Children. Paper presented at the ASHA Convention 2015, Denver CO, November 12-14.
- van Doornik-van der Zee, J.C. & **Terband, H.** (2015). Intelligibility measurements in developmental speech disorders. Paper presented at the 9th European Congress of Speech and Language Therapy (CPLOL 2015), Florence, May 8-9.
- Terband, H.**, van Brenk, F., van der Zee, J.C., Nijssen, M., & Cai, S. (2014). Auditory feedback perturbation in children with developmental speech sound disorders. Paper presented at the Conference on Motor Speech 2014, Sarasota FL, February 27-March 2.
- Terband, H.** (2013). Neurocognitive-Behavioral Research in Childhood Apraxia of Speech: where do we go from here? Paper presented at the CASANA Childhood Apraxia of Speech Research Symposium, Atlanta GA, February 21-22. *Invited speaker*.
- Terband, H.** & Maassen, B. (2011). Speech motor development in Childhood Apraxia of Speech (CAS): generating testable hypotheses by neurocomputational modeling. Paper presented at the 6th International Conference on Speech Motor Control, Groningen, June 8-11. *Invited speaker*.
- Terband, H.**, Maassen, B., Guenther, F.H., & Brumberg, J. (2010). Testing hypotheses about the neurological mechanisms underlying Childhood Apraxia of Speech (CAS). Paper presented at the Conference on Motor Speech 2010, Savannah GA, March 4-7.
- Terband, H.**, Maassen, B., & Guenther, F.H. (2009). Testing hypotheses about the neurological mechanisms underlying Childhood Apraxia of Speech (CAS). Paper presented at the TABU-dag 2009, Groningen, June 11-12. *Best presentation award*.

Selected peer-reviewed conference contributions: posters

- Terband, H.** & Lentz, T. (2020). Perception-production relationships in weighting phonetic cues of vowel contrasts. Poster at the Conference on Motor Speech 2020, Santa Barbara CA, February 20-23.
- Van Brenk, F., **Terband, H.** & Maassen, B. (2020). SimpleDIVA modelling of individual differences in speakers' responses to auditory feedback perturbation. Poster at the Conference on Motor Speech 2020, Santa Barbara CA, February 20-23.

- van Doornik, Gerrits, E., **Terband, H.** & McLeod, S. (2020). Severity of speech sound disorders (SSD). Poster at the Conference on Motor Speech 2020, Santa Barbara CA, February 20-23.
- Diepeveen, S., van Haaften, L., **Terband, H.**, Van den Engel-Hoek, L., De Swart, B., & Maassen, B. (2020). Maximum Repetition Rate normative data from a large sample of Dutch-speaking children, and its role in speech profiling. Poster at the Conference on Motor Speech 2020, Santa Barbara CA, February 20-23.
- Spruit, M, & **Terband, H.** (2018). Speech production disorders in children with Fetal Alcohol Spectrum Disorders. Poster at the 10th European Congress of Speech and Language Therapy (CPLOL), Cascais, May 10-12, 2018.
- Terband, H.**, Maassen, B. & Maas, E. (2018). A model of speech development and disorders for diagnosis and treatment planning. Poster at the Conference on Motor Speech 2018, Savannah GA, February 21-25.
- Terband, H.** (2018). Deviant coarticulation in children with childhood apraxia of speech (CAS) does not include hyperarticulation. Poster at the Conference on Motor Speech 2018, Savannah GA, February 21-25.
- Keij, B., Janssen, L., Van der Graaff, J., De Mulder, H., Verhagen, J., & **Terband, H.** (2017). The relation between phonological skills and problem behaviour in pre-schoolers. Poster at the 14th International Congress for the Study of Child Language 2017, Lyon, July 17-21.
- Terband, H.** (2017). Deviant coarticulation in children with childhood apraxia of speech (CAS) does not include hyperarticulation. Poster at the 7th International Conference on Speech Motor Control, Groningen, July 5-8.
- Terband, H.**, van Montfort, M., Bax, L., Hart, P., Sehgal, S., Smorenburg, L., Versteeg, F., & Lentz, T. (2017). Articulatory control parameters of phonological contrasts: the case of cue-weighting for Dutch /a/ - /a/. Poster at the 7th International Conference on Speech Motor Control, Groningen, July 5-8.
- Diepeveen, S., van Haaften, L., **Terband, H.**, De Swart, B. & Maassen, B. (2017). Maximum Repetition Rate: Normative data and a comparison of children with Speech Sound Disorders (SSD). Poster at the 7th International Conference on Speech Motor Control, Groningen, July 5-8.
- Maassen, B., **Terband, H.**, van Haaften, L., Diepeveen, S., & De Swart, B. (2016). Maximum Repetition Rate (MRR) in Children: Standardization and Bench-marking. Poster at the Conference on Motor Speech 2016, Newport Beach CA, March 2-6.
- Spruit, M., **Terband, H.**, & Maassen, B. (2016). Speech disorders in children with Fetal Alcohol Syndrome: Commonalities and individual differences. Poster at the Conference on Motor Speech 2016, Newport Beach CA, March 2-6.
- Terband, H.**, Nijssen, M., van Brenk, F., van der Zee, J.C., & Maassen, B. (2014). Development of a learning task for a process-oriented diagnostics of developmental speech sound disorders: a pilot study. Poster at the Conference on Motor Speech 2014, Sarasota FL, February 27-March 2.
- van Brenk, F., **Terband, H.**, & Cai, S. (2014). Auditory feedback perturbation in adults and children. Poster at the Conference on Motor Speech 2014, Sarasota FL, February 27-March 2.
- Terband, H.**, van Zaalen, Y., Hommeles, S., Martens, A., Savelkoul, N., & Maassen, B. (2012). Lateral jaw stability in children with developmental speech disorders. Poster at the Conference on Motor Speech 2012, Santa Rosa CA, February 29-March 4.
- Terband, H.**, van Brenk, F., van Lieshout, P., Maassen, B., & Lowit, A. (2012). Speech rate strategies in younger and older adults. Poster at the Conference on Motor Speech 2012, Santa Rosa CA, February 29-March 4.

- Terband, H.**, Maassen, B., Lieshout, P., & Nijland, L. (2010). Stability and composition of functional synergies for speech movements in children with developmental speech disorders. Poster at the Conference on Motor Speech 2010, Savannah GA, March 4-7.
- Maassen, B. and **Terband, H.** (2008). Modeling feedback mechanisms in Childhood Apraxia of Speech. Poster at the 12th Congress of the ICPLA, Istanbul, June 25-28.
- Terband, H.**, Maassen, B., Brumberg, J., & Guenther, F. H. (2008). Increased levels of neural noise as the core deficit in Childhood Apraxia of Speech (CAS). Poster at the Conference on Motor Speech 2008, Monterey CA, March 6-9.
- Terband, H.**, van Brenk, F., Maassen, B., & Nijland, L. (2008, March 6-9). Articulation in children with developmental speech disorders. Poster at the Conference on Motor Speech 2008, Monterey CA, March 6-9.
- Maassen, B. & **Terband, H.** (2007). Neurophysiological Precursors of Dyslexia in Infancy. Poster at the ASHA Convention 2007, Boston MA, November 15-17.
- Terband, H.**, Maassen, B. & Brumberg, J. (2007). Computational Neural Modeling of Childhood Apraxia of Speech. Poster at the ASHA Convention 2007, Boston MA, November 15-17.

Selected professional lectures and workshops

- Keij, B., Janssen, L., Van der Graaff, J., De Mulder, H., Verhagen, J., & **Terband, H.** (2017). The relation between phonological skills and problem behaviour in pre-schoolers. Congres TaalStaal 2017: Effectiviteit van behandelinterventie, Utrecht, November 10, 2017.
- Terband, H.** (2017). Naar een model van spraakontwikkelingsstoornissen voor differentiaaldiagnose en therapieplanning. *Invited lecture* at the Noorddag Logopedie ELANN, Groningen, March 11, 2017.
- Terband, H.** (2016). Testing hypotheses about the underlying deficit of apraxia of speech (AOS) through computational neural modelling: Effects of noise masking on vowel production in the DIVA model. *Invited lecture* at NOSHC: New Observations in Speech and Hearing Colloquium, Institute of Phonetics and Speech Processing, Ludwig-Maximilians Universität München, December 7.
- Janssen, L., Keij, B., De Mulder, H., Verhagen, J., Van der Graaff, J., & **Terband, H.** (2016). Communicatieve vaardigheden als voorspeller van gedrag bij kleuters. SCEM Symposium Taalontwikkeling: stoornis of achterstand?, Ede, December 1, 2016.
- Terband, H.** (2016). Naar een model van spraakontwikkelingsstoornissen voor differentiaaldiagnose en therapieplanning. *Invited lecture* at Capita selecta ANLU, Utrecht, January 22.
- Maassen, B. & **Terband, H.** (2014). Computer-articulatie instrument: een gestandaardiseerde assessment van fonologische en spraakmotorische ontwikkeling en stoornissen. Workshop at Alle Taal Centraal symposium (Koninklijke Kentalis), Eindhoven, November 13.
- Terband, H.** & Maassen, B. (2012). Klinische implementatie van procesdiagnostiek en indicatiestelling van complexe, senso-motorische spraakstoornissen bij kinderen. *Invited lecture* at NVSST, Utrecht, December 22.
- Terband, H.** (2012). Vroege verwerving spraakmotoriek. *Invited lecture* at WALs, Utrecht, May 22.

Manuscripts under review or in preparation

- van Doornik, A., Franken M-C., McLeod, S., **Terband, H.** & Gerrits, E. (to be resubmitted). Self-evaluation of communicative attitude by children with speech sound disorders. *Clinical Linguistics & Phonetics*.
- van Tellingena, M., **Terband, H.**, Hurkmans, J., Jonkers, R. & Maassen, B. (in preparation). Treatment of developmental speech disorders with music therapy: A Systematic Review.

Terband, H. (in preparation). Deviant coarticulation in children with childhood apraxia of speech (CAS) does not include hyperarticulation.

Terband, H. & Lentz, T. (in preparation). Perception-production relationships in weighting phonetic cues of vowel contrasts.

van Doornik, Gerrits, E., **Terband, H.** & McLeod, S. (in preparation). Severity of speech sound disorders (SSD): development and validation of a severity index.

Keij, B., Janssen, L., Van der Graaff, J., De Mulder, H., Verhagen, J., & **Terband, H.** (in preparation). The relation between linguistic skills and problem behaviour in typically developing pre-schoolers.

Diepeveen, S., van Haaften, L., van de Zande, A.M., **Terband, H.**, De Swart, B., & Maassen, B. (in preparation). Towards a typology of speech sound disorders.

Terband, H., Rankenberg, Y., van Doornik, A. (in preparation). Speech production errors in Australian-Dutch bilingual children.

Submitted & upcoming conference abstracts

van Doornik, Gerrits, E., **Terband, H.** & McLeod, S. (accepted - cancelled). The severity of speech sound disorders (SSD). Paper submitted for the Speech Pathology Australia Conference 2020, Darwin, May 24-27.

van Doornik, Gerrits, E., **Terband, H.** & McLeod, S. (submitted- cancelled). Severity of speech sound disorders (SSD). Paper submitted for the Conference of the International Association for the Study of Child Language 2020, Philadelphia PA, July 13-17.

van Tellinghen, M., Hurkmans, J., **Terband, H.** & Maassen, B. (submitted- cancelled). Treatment of Childhood Apraxia of Speech with Speech and Music Therapy. Paper submitted for the Apraxia Kids Research Symposium, Dallas TX, July 7-9, 2020.