

Helmer Strik

CURRICULUM VITAE

Name: Helmer Strik
Date & place of birth: 18 May 1957, Rosmalen
Nationality: Dutch
Address (work): CLS, CLST, Erasmusplein 1, 6525 HT Nijmegen
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EDUCATION

28 November 1994

PhD in Physics, Radboud University Nijmegen.

Title of Thesis: Physiological control and behavior of the voice source in the production of prosody.

Biophysical - phonetic research carried out at the Dept. of Phonetics and ENT Dept. of UMC St. Radboud, Nijmegen; with a 3-month internship at Haskins Laboratories, Yale University, New Haven, USA.

Promotors: Prof. Dr. C.C.A.M. Gielen (Medical and Biophysics) & Prof. Dr. L.W.J. Boves (Phonetics)

12 December 1985

Master in Physics, Radboud University, Nijmegen.

Main topic: The dimensional and dynamical aspects of the auditory neurons in the midbrain (torus semicircularis) of the grassfrog (*Rana temporaria* L).

Brain research carried out at the Dept. 'Medical and Biophysics', UMC St. Radboud, Nijmegen.

Supervisors: Dr. W. Epping & Prof. J.J. Eggermont

WORK EXPERIENCE

2011-now; Radboud Innovation, Ambassador Valorisation of CLS, Faculty of Arts

2013; Co-founder and 'chief scientific officer' (CSO) of NovoLanguage, an RU spin-off company

2011-now; Associate professor (UHD) at Dept. of Linguistics

2004-2011; Assistant professor (UD) at Dept. of Linguistics

2000-2004; Assistant professor (UD) at Dept. of Language and Speech

1995-2000; KNAW fellow, project 'Using Articulatory Knowledge in ASR'

1991; Co-founder of Polderland 'Language and Speech Technology', an RU (KUN) spin-off company

1985-1995; Junior researcher & teacher, Dept. of Phonetics, Radboud University, Nijmegen

1973-1979; Assistant in family construction company

PUBLICATIONS AND PRESENTATIONS

(Co-)author of more than 200 publications, and (co-)presenter of more than 150 presentations.

For a list of publications, see:

- <http://hstrik.ruhosting.nl/publications/>
- https://www.researchgate.net/profile/Helmer_Strik/publications

RESEARCH

Information on most of the projects can be found at <http://hstrik.ruhosting.nl/projects/>

Main applicant and project leader of the following externally funded projects

- 2015 - now; Effecten van een digitaal leermiddel bij het leren lezen, Nationaal Regieorgaan Onderwijsonderzoek (NRO), NWO
- 2013 - now; CHALLENGING Speech training In Neurological patients by interactive Gaming (CHASING), NWO Topsector Creative Industries
- 2012 - now; Digital Literacy Instructor (DigLin), Eur. Lifelong Learning Programme (LLP), Grundtvig
- 2011 - 2014; Games Online for Basic Language learning (GOBL), Eur. Lifelong Learning (LLP) Programme, KA2 Languages
- 2011 - 2013; My Pronunciation Coach (MPC) phase 2, STW Valorisation Grant
- 2010 - 2011; My Pronunciation Coach (MPC) phase 1, STW Valorisation Grant
- 2010 - 2011; Transcription Quality Evaluation (TQE), CLARIN-NL
- 2009 - 2011; Alfabetisering met een luisterende computer - SpraakTechnologie in AAP (ST-AAP), Dutch-Flemish Stevin programme
- 2008 - 2012; Development and Integration of Speech technology into Courseware for language learning (DISCO), Dutch-Flemish STEVIN programme

Co-applicant and/or coordinator of the following externally funded projects:

- 2015 - now; Serious Gaming for Minority Language Elicitation (SMiLE), KIEM, NWO Topsector creative industries
- 2014 - now; Idiomatic Second Language Acquisition (ISLA), NWO Small Programme (Vrije Competitie)
- 2012 - 2015; The Challenges of the Multilingual and Multicultural Learning Space in the International University (IntlUni), European Lifelong Learning Programme (LLP)
- 2012 - 2015; Language Technology in the European Research ERA (LANGTERRA), European 7th framework programme (FP7)
- 2012 - 2013; Database of the Longitudinal Utrecht Collection of English Accents (D-LUCEA), CLARIN-NL
- 2011 - 2014; Communicatie en Revalidatie DigiPoli (ComPoli), ZonMw
- 2011 - 2012; Pronunciation Error Detection for Dysarthric Speech (PEDDS), ZonMw
- 2009 - 2014; Feedback and the Acquisition of Syntax in Oral Proficiency (FASOP), NWO Small Programme (Vrije Competitie)
- 2007 - 2011; Sound to Sense (S2S) - exploring how humans and computers understand speech, Eur. Marie Curie Research Training Network (MC-RTN)
- 2002 - 2007; PhD project 'Automatic generation and validation of phonetic transcriptions', Stichting Spraaktechnologie
- 2001 - 2007; Implications of potentially erroneous feedback in CALL systems, NWO PROO
- 2000 - 2003; Platform TST, actielijnen B&C, Supervisor van actie lijnen B&C van het Platform TST, samen met Prof. Dr. W. Daelemans, Nederlandse Taalunie
- 2001-2003; Pilot study Automatic recognition of Dutch dysarthric speech, sponsored by, and carried out in cooperation with the Sint Maartenskliniek in Nijmegen
- 1997 - 2002; PhD project 'Pronunciation variation modeling for Dutch automatic speech recognition'
- 1997 - 2002; PhD project 'On automatic transcription and modeling of Dutch pronunciation variation for ASR', NWO
- 1997 - 2000; Automatic testing of oral proficiency, Senter (later AgentschapNL, now RVO)
- 1995 - 2000; Using Articulatory Knowledge in Automatic Speech Recognition, KNAW fellow, personal grant from the 'Royal Dutch Academy of Sciences' (KNAW)

Researcher and/or supervisor in the following externally funded projects

- 2015 - 2016; Spraakverandering als vroege marker longaanval, EFRO project
- 2003 - 2005; Multimedia Dialect Database (MuMDiD), KNAW digitaliserings fonds
- 2000 - 2002; Multimedia Indexing and Searching Environment (MUMIS), Eur. FP5 programme
- 1995 - 2000; Prioriteitsprogramma Taal - & Spraaktechnologie (PP-TST), NWO
- 1994 - 1995; Multilingual Automatic Inquiry Systems (MAIS), European Language Engineering (LE) MLAP-94 programme
- 1989 - 1992; POLYGLOT, European ESPRIT programme
- 1985 - 1988; Declination, NWO project

Invitations

- 'De inzet van spraaktechnologie bij leren', NOTaS, Zwijssen, Tilburg, 24/03/2016.
- 'ASR-based pronunciation metrics for eLearning and eTherapy', Workshop on 'Feedback in Pronunciation Training', Saarland, 5-6/11/2015.
- De Taalshow: 'Apps, games en MOOCs', Torpedo theater, Amsterdam, 23/04/2015.
- 'The future of CALL', workshop 'The future of language teaching/training related to technology', Televic Education, Izegem, Belgium, 10/09/2014.
- 'ASR of learner speech', Cambridge English Centenary Symposium on Speaking Assessment, Cambridge, 03/09/2013.
- 'Spraaktechnologie voor taalleren', Jubileumcongres, 30 jaar LES, 'Met hoofd, hart en handen'. NOVA College, Burgemeester Hogguerstraat 2, Amsterdam, 10/11/2012.
- 'CAPT: Computer Assisted Pronunciation Training', Motor Speech Conference 2012, Universitair Ziekenhuis Antwerpen (UZA), Auditorium Kinsbergen, 27-28/09/2012.
- Keynote 'ASR-based CALL systems for language learning and therapy', International: Symposium on Automatic Detection of Errors in Pronunciation Training (IS ADEPT), Stockholm, Sweden, 06-08/06/2012.
- 'Results of R&D: BLARK for Dutch', HLT Collaboration workshop, Cape Town, SA, 24-25/11/2008.
- 'Spreekvaardigheidstraining met behulp van Automatische Spraak-Herkenning', Conferentie Inburgering via Technologische Innovatie 2008!, Rotterdam, 20/11/2008.
- 'Uitspraakevaluatie & training met behulp van spraaktechnologie', Symposium Virtuele communicatieondersteuning, Gasthuisberg, K.U. Leuven, 28/04/2007.
- 'Using speech technology for pronunciation assessment and training', Eidgenössische Technische Hochschule (ETH), Zurich, Switzerland, Monday 29/01/07.
- Invited panelist for the special session 'Bridging the Gap Between Human and Automatic Speech Processing' at InterSpeech 2005, Lisbon.
- Invited presentation and panelist for the symposium on 'Pronunciation Variability and Speech Technology' (Coordinator: Bjorn Granström), 15th Int. Congress of Phonetic Sciences (ICPhS-03), Barcelona, Spain, 07/08/ 2003.
- Invited panelist for the ISCA Tutorial and Research Workshop 'Pronunciation Modeling and Lexicon Adaptation for Spoken Language Technology', Estes Park, Colorado, USA, 14-15/09/2002.
- Invited panelist for the Eurospeech Special Event (ESE) on 'Integration of Phonetic Knowledge in Speech Technology', Aalborg, 07/09/2001.
- Invited keynote presentation: the ISCA Tutorial & Research Workshop (ITRW) 'Adaptation Methods For Speech Recognition', Sophia-Antipolis, France, 29-30/08/2001.

Reviewing

Reviewer for various international journals (i.e. Journal of the Acoustical Society of America; Speech Communication; Computer, Speech and Language, Computer Assisted Language Learning), of project proposals (for various organisations in different countries), and for conferences, workshops, and symposia; see also 'Member of international committees' below.

Editorial

- H. Strik, C. Cucchiaroni (2011) Proc. of the ISCA Workshop 'Speech and Language Technology in Education' (SLaTE-2011), 24-26/08/2011, Venice, Italy.
- Eskenazi, Alwan, Strik (2009) Guest editors of the special issue on 'Spoken Language Technology for Education': Speech Communication, Volume 51, Issue 10, October 2009.
- H. Strik (1999) Guest editor of the special issue of Speech Communication about 'Modeling pronunciation variation for automatic speech recognition'. Speech Communication 29, 166 pages.
- H. Strik, J.M. Kessens, M. Wester (1998) Proc. of the ESCA Workshop 'Modeling Pronunciation Variation for Automatic Speech Recognition', Rolduc, Kerkrade, 04-06/05/1998, 175 pages.
- Co-editor of various annual proceedings of the Department of Language and Speech.

Internships

April - August 2003: Visiting researcher at the 'Interactive Sensory Systems' (SSI) research division of the 'Institute for Scientific and Technological Research' (IRST) in Povo, Italy.

Participation in two projects on ASR for Computer Assisted Language Learning (CALL) applications and ASR for children's speech:

- Peach (Personal Experience with Active Cultural Heritage)
- PF-STAR (Preparing Future Speech Translation Research).

September - December 1987: Visiting researcher at Haskins Laboratories, Yale University, New Haven (CT, USA) in the framework of PhD project.

Member of international scientific committees

- Area Chair (AC) for 'Area 1. Speech Perception, Production and Acquisition' at conferences:
 - Interspeech 2016, San Francisco, California, USA, 08-12/09/2016
 - Interspeech 2014, Singapore, 14-18/09/2014
- Organizing committee (co-technical chair) of the international ISCA conference InterSpeech 2007, Antwerp, 27-31/08/2007 (co-organized by Belgium and The Netherlands)
- Conferences, workshops, symposia:
 - Annual Conference of ISCA: Interspeech 2001 - 2017
 - Annual IEEE International Conference: ICASSP 2006 - 2017
 - Bi-annual IEEE workshop ASRU 2005 - 2015
 - Annual PRASA symposium, 2008 - 2017
 - Annual NAACL-HLT Workshop on Innovative Use of NLP for 'Building Educational Applications' (BEA), 2003-2017
- SLaTE workshops, usually bi-annual (<http://www.sigslate.org>): SLaTE-2015, Leipzig, Germany; SLaTE-2013, Grenoble, France; SLaTE-2011, Venice, Italy; SLaTE-2010, Tokyo, Japan; SLaTE-2009, Warwickshire, England; SLaTE-2007, Farmington (PA), USA.
- Other events:
 - The COLING-2012 workshop on 'Speech and Language Processing Tools in Education' (SLP-TED), Mumbai, India, 15/12/2012.
 - The InSTIL/ICALL Symposium, Venice, Italy, 17-19/06/2004.
 - The 11th ELSNET Summer School on Language and Speech Communication, topic: 'Language and Speech Technology in Language Learning', Lille, France, 07-18/07/2003.
 - The ISCA Tutorial and Research Workshop 'Pronunciation Modeling and Lexicon Adaptation for Spoken Language Technology', Estes Park, Colorado, USA, 14-15/09/2002.
 - Workshop Robust Methods for ASR in Adverse Conditions, Tampere, Finland, 25-26/05/1999.

Representative functions

- The ISCA 'Special Interest Group' (ISCA-SIG) on 'Speech and Language Technology in Education' (SLaTE; www.sigslate.org, www.isca-speech.org/iscaweb/index.php/sigs?layout=edit&id=121):
 - 2015 - now: chair
 - 2011 - 2015: vice-chair and treasurer
 - 2007 - now: member of the 'international scientific committee'
- Member of 'Ontwikkelcentrum voor Spraak- en Taaltechnologie' (OSTT) (<http://www.ostt.eu/>).
- Member of the 'international steering committee' of the project CALST: 'Computer-Assisted Listening and Speaking Tutor'.
- Member of the 'Nederlandse Taalunie' (NTU) cie. 'Taal - en Spraak-Technologie (TST) en communicatieve beperkingen'.
- Member of the 'Nederlandse Taalunie' (NTU) cie. 'Taal - en Spraak-Technologie (TST) en onderwijs'.
- Dutch representative in COST action 278: 'Spoken Language Interaction in Telecommunication'.
- Representative for speech technology - the Netherlands in the steering committee of action lines B&C of the 'Platform TST' (together with for Flanders: Prof. Dr. D. Van Compernelle, Prof. Dr. W. Daelemans, Prof. Dr. F. van Eynde, Prof. Dr. J-P. Martens; and for the Netherlands: Prof. Dr. A. Nijholt, Dr. G. Bouma, Dr. A. Dirksen).
- Dutch representative in COST action 249: 'Continuous Speech Recognition over the Telephone'.

Organization of international meetings: conferences, workshops and symposia

- Co-chair of the SLaTE 2017 workshop, Stockholm, August 25-26, 2017.
- Final meeting 'Games Online for Basic Language learning' (GOBL), Nijmegen, 20-22/11/2014.
- Conference 'Low-Educated Second Language and Literacy Acquisition' (LESLLA), Nijmegen, 28-30/08/2014.
- Symposium 'Human Language Technology for Language Learning' (HLT4LL), Stellenbosch, South-Africa, 11-13/11/2013.
- Kick-off meeting 'The Digital Literacy Instructor' (DigLin), Nijmegen, 14-15/03/2013.
- Kick-off meeting 'Games Online for Basic Language Learning' (GOBL), Nijmegen, 02-03/02/2012.
- Workshop 'Speech and Language Technology in Education' (SLaTE-2011), Venice, Italy, 24-26/08/2011.
- The international Nijmegen Sound to Sense (S2S) workshop, Huissen, 11-12/02/2008.
- Co-technical chair of the international ISCA conference InterSpeech 2007, Antwerp, 27-31/08/2007.
- Co-organizer, together with Li Deng of Microsoft (USA) of the InterSpeech 2007 special session: 'Structure-Based and Template-Based Automatic Speech Recognition - Comparing parametric and non-parametric approaches', Wednesday, August 29/08/2007.
- Co-organizer of the international IEEE, ISCA, COST249 workshop 'Voice Operated Telecom Services: Do they have a bright future?', Ghent, Belgium, 11-12/05/2000.
- Co-organizer of the international ESCA Tutorial and Research Workshop (ETRW) 'Modeling Pronunciation Variation for Automatic Speech Recognition', Rolduc, Kerkrade, 04-06/05/1998.

PHD STUDENTS

Supervisor PhD students

- Chitralkha Bhat, started 28/11/2016
- Mario Ganzeboom, started 01/01/2014.
- Pepi Burgos, started 01/09/2012.
- Stephen Bodnar, started 01/09/2010.
- Bart Penning de Vries, 'Computerised speaking practice: the role of automatic corrective feedback in learning L2 grammar' 19/06/2015.
- Joost van Doremalen, 'Developing automatic speech recognition-enabled language learning applications: From theory to practice', 16/05/2014.
- Ambra Neri, 'The pedagogical effectiveness of ASR-based Computer Assisted Pronunciation Training', Nijmegen, 08/06/2007.
- Christophe van Bael, 'Validation, automatic generation and use of broad phonetic transcriptions', Nijmegen, 15/10/2007.
- Judith Kessens, 'Making a difference. On automatic transcription and modeling of Dutch pronunciation variation for automatic speech recognition', 10/06/2002.
- Mirjam Wester, 'Pronunciation Variation Modeling for Dutch Automatic Speech Recognition', 15/04/2002.

Member of supervising and/or manuscript committee in PhD projects

- L. Beijer, 'E-learning based Speech Therapy (EST): Exploring the potentials of e-health in dysarthric speaker', member of the supervising committee and the PhD committee (PhD project carried out at the Sint Maartenskliniek), Nijmegen, 21/11/2012.
- T.P. Mertens, 'Lexical Robustness for Automatic Speech Recognition', chairman of the PhD thesis committee, Trondheim, Norway, 27/08/2012.
- O. Saz, 'On-Line Personalization and Adaptation to Disorders and Variations of Speech on Automatic Speech Recognition Systems', chairman of the opposition committee, Zaragoza, Spain, 09/12/2009.
- R. Beutler, 'Improving Speech Recognition through Linguistic Knowledge', member of the manuscript and opposition committee, Eidgenössische Technische Hochschule (ETH), Zurich, Switzerland, 29/01/2007.
- A.P. Salverda, 'Prosodically-conditioned detail in the recognition of spoken words', member of the manuscript and opposition committee, 19/12/2005.
- R. Orr, 'Methods of voice analysis for estimating robustness of the student teacher's voice', member of the opposition committee, 22/04/2005.
- F. de Wet, 'Automatic speech recognition in adverse acoustic conditions', member of the opposition committee, 17/11/2003.
- N. Cremelie, 'Heuristische zoekstrategie en automatische aanmaak lexica voor continue spraakherkenning', member of the manuscript and opposition committee, Gent, Belgie, 25/06/2000.
- J. Koreman, 'Decoding Linguistic Information in the Glottal Airflow', member of the manuscript and opposition committee, 14/10/1996.
- H. van de Heuvel, 'Speaker variability in acoustic properties of Dutch phoneme realisations', member of the opposition committee, 09/02/1996.

OTHER INFORMATION (MAINLY IN DUTCH)

Onderwijsgerelateerde zaken

Basiskwalificatie onderwijs (BKO)

1^e graads leraar Natuurkunde

Stage bij Scholengemeenschap Nijmegen West Dennenstraat, Nijmegen; nov. 1984 - juli 1985.

Cursussen waar ik bij betrokken ben of ben geweest

- Bachelor Taalwetenschap (TW): Fonetiek, Statistiek 1, Taalleren met de computer, TW lab
- Master Linguistics: Computer Assisted Language Learning (CALL)
- Taal- en Spraak-Pathologie (TSP): Inleiding TSP, Spraakstoornissen, Verdieping spraakstoornissen 2, Technologie in de Taal - en SpraakPathologie (e-Health)
- Research Master Language and Communication: Inleiding Taal- en Spraak-Technologie
- Master Taal- en Spraak-Technologie (T&ST): Inleiding Taal- en Spraak-Technologie - Jurafsky & Martin (J&M), Verdieping Spraak-Technologie (VST), Practicum Verdieping Spraak-Technologie (PVST)
- Bachelor Taal, Spraak en Informatica: Automatische Synthese en Herkenning van Spraak (ASHS), Signaaltechnische Aspecten van Spraak (SAS), Automatische Spraak-Herkenning (ASH)
- College 'Computer aided pronunciation training', KU Leuven, 04/03/2009
- Cursus op zomerschool Landelijke Onderzoekschool Taalwetenschap (LOT) in Leuven, 'Pronunciation and automatic speech recognition: annotation, variation, assessment and training', op 11-15/06/07, met zeer positieve evaluaties.
- Vele stages, Ba-scripties, en Ma-scripties voor alle hierboven genoemde opleidingen.

Organisatorische aspecten

- 2016-2017: hoofdaanvrager en coördinator van de proeftuin MijnST: Mijn Spraaktrainer
- 2012-2015: chair of the exam committee of the Bachelor Linguistics
- 2011-2012: H. Strik, O. Boonstra, R. le Pair: e-humanities & onderwijs GW cie.
- 2009-2010: H. Strik & O. Boonstra: e-humanities & onderwijs GW cie.
- 2006-2011: Opleidingscoördinator Bachelor Taalwetenschap, en 7 TW minoren:
 - Kwantitatieve methoden
 - Taal en imago
 - Taalontwikkeling
 - Taal en Spraakpathologie
 - Taal en Spraaktechnologie
 - Taaluniversalia
 - Taalwetenschap
- 2006-2012: Lid van de examencommissie van Taalwetenschap
- 2002-2003: Coördinator STP
- 2002-2003: Coördinator van de Haalbaarheidsstudie 'Master STP', uitgevoerd in opdracht van het bestuur van de faculteit Letteren te Nijmegen, van 1 juli 2002 tot 7 april 2003.

PR-gerelateerde activiteiten

- 2002 - 2014: Lid PR commissie van de Vakgroep Taalwetenschap
- 2002 - 2012: Lid van PR commissie van de Faculteit Letteren
- 2002 - 2004: Webmaster van de Vakgroep Taalwetenschap
- PR (Public Relations)
 - Various appearances on radio and TV
 - Various popular scientific presentations
 - Several popular scientific articles

21-10-2011, Individueel Assessment door bureau GITP

De resultaten van deze assessment waren heel positief; hieronder wat citaten uit het rapport.

Conclusies:

“De intellectuele vermogens van de heer Strik liggen, over het geheel gezien, op een ruim gemiddeld academisch werk- en denkniveau.

Het interpreteren van verbaal analytische gegevens, zoals mondelinge en schriftelijke informatie, gaat hem gemakkelijk af. Hij begrijpt vlot wat er gezegd wordt en doorgrondt omvangrijk schriftelijk materiaal, zoals beleidsdocumenten, adequaat; op dit onderdeel scoort hij een ruim gemiddeld academisch niveau.

Hij voelt zich als een vis in het water als het gaat om het doorgronden van cijfermatige opdrachten en het uitvoeren van financiële analyses. Op dit onderdeel zit hij op een zeer goed gemiddeld academisch niveau.

Zijn abstract-analytisch denkvermogen, dat indicatief is voor het zich vlot kunnen vormen van overzicht en het verkrijgen van inzicht in inhoudelijk complexere zaken, ligt op een stevig gemiddeld academisch niveau. Vanuit de praktijksimulaties bezien overziet hij nieuwe en complexe zaken, weet hij thema's op een hoger niveau te tillen om ze vanuit dit perspectief op te lossen.”

Languages

Dutch (mother tongue), English (CPE: C2), German and Italian

Cambridge 'Certificate of Proficiency in English' (CPE), June 2011, CEFR Level: C2;
Reading & Speaking: good - exceptional, Listening & Use of English: exceptional