

Tim Schoof, PhD

University College London
Speech, Hearing and Phonetic Science
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Education

- 2014 Ph.D., University College London (Speech, Hearing and Phonetic Sciences)
Thesis: The effects of ageing on the perception of speech in noise
- 2011 MRes, University College London (Speech, Language and Cognition)
Dissertation: Brainstem encoding of voiced stop consonants in quiet and in noise
- 2010 MA, Utrecht University (Linguistics)
Dissertation: The perception of speech in noise with bilateral and bimodal hearing devices
- 2007 BA, University of Groningen (English Language and Literature)

Academic and research experience

- 2017-present Research Associate
University College London, Speech Hearing and Phonetic Sciences
Project: Consequences of cochlear neuropathy in people with normal hearing thresholds
- 2017-present Statistical consultant
Northwestern University, Hearing Aid Laboratory, Department of Communication Sciences and Disorders
- 2015-2016 Postdoctoral Fellow
Northwestern University, Hearing Aid Laboratory, Department of Communication Sciences and Disorders
Project: Individual differences in hearing aid outcomes
- 2014-2015 Postdoctoral Fellow
University College London Speech, Hearing and Phonetic Sciences
Project: Developing a clinical tool for the rapid assessment of subcortical processing of complex sounds
- 2009 Research Assistant
Utrecht University, Utrecht Institute of Linguistics / OTS

Publications

- Schoof, T., and Souza, P. (under review). Listening effort with typical use of hearing aid noise reduction in older listeners.
- Souza, P., Schoof, T., and Shen, J. (2017). Can individual cognitive abilities direct audiology treatment? *Audiology Today*, 29(2), 25-31.
- Schoof, T., and Rosen, S. (2016). The role of age-related declines in subcortical auditory processing in speech perception in noise. *Journal of the Association for Research in Otolaryngology*, 17(5), 441-460.
- Schoof, T., and Rosen, S. (2015). High sentence predictability increases the fluctuating masker benefit. *Journal of the Acoustical Society of America*, 138, EL181.
- Schoof, T., and Rosen, S. (2014). The role of auditory and cognitive factors in understanding speech in noise by normal-hearing older adults. *Frontiers in Aging Neuroscience*, 6:307.
- Schoof, T., Green, T., Faulkner, A., and Rosen, S. (2013). Advantages from bilateral hearing in speech perception in noise with simulated cochlear implants and residual acoustic hearing. *Journal of the Acoustical Society of America*, 133(2), 1017 – 1030.

Publications in preparation

- Schoof, T., and Rosen, S. (in prep). Rapid FFR: A new technique to rapidly collect the frequency following response.
- Schoof, T., Calcus, A., Rosen, S., Shinn-Cunningham, B., and Souza, P. (in prep). Isolating the informational component of speech-on-speech masking.

Presentations

- Schoof, T., Souza, P., Anderson, M., Arehart, K. (2017). Variability in susceptibility to hearing aid distortion (invited talk). Science Space Seminar, National Institute for Health Research Nottingham Hearing Biomedical Research Unit, Nottingham, UK.
- Schoof, T. (2017). Enhancing transparency and reproducibility of hearing science (poster). American Auditory Society, Scottsdale, AZ, USA.
- Schoof, T., Souza, P., Anderson, M., Arehart, K. (2017). Variability in hearing aid outcomes in older adults (talk). Speech Science Forum, University College London, London, UK.
- Calcus A., Schoof T., Rosen S, Shinn-Cunningham B, Souza P. (2017). Isolating the informational component of speech-on-speech masking (poster). Speech Perception in Noise workshop, Oldenburg, Germany.
- Schoof T, Calcus A, Rosen S, Shinn-Cunningham B, Souza P. (2016). Isolating the informational component of speech-on-speech masking (poster). Acoustical Society of America, Honolulu, HI, USA.
- Souza, P., Schoof, T., Anderson, M., and Arehart, K. (2016). Variability in hearing aid outcomes in older adults: Clinical trial design and preliminary results (poster). International Hearing Aid Conference, Tahoe City, CA, USA.
- Schoof, T., and Rosen, S. (2016). Neural origins of the Frequency Following Response to resolved and unresolved modulated tones (poster). Frequency Following Response

Workshop, Boston, MA, USA.

- Souza, P., Shen, J., and Schoof, T. (2015). Does noise reduction reduce listening effort for older hearing-aid users? (talk). Aging and Speech Communication Conference, Bloomington, IN, USA.
- Schoof, T., and Rosen, S. (2015). The role of auditory and cognitive processing in the perception of speech in noise by normal-hearing older adults (invited talk). Auditory Research Laboratory, Newcastle University, UK.
- Schoof, T., Rosen, S., and de Cheveigné, A. (2015). Rapid FFR: A new technique to rapidly collect the Frequency Following Response (poster). ARO MidWinter Meeting 2015, Baltimore, MD, USA.
- Schoof, T., and Rosen, S. (2015). The role of age-related declines in subcortical auditory processing in speech perception in noise (invited talk). Seminar series of the Department of Bioengineering, Imperial College London, London, UK.
- Schoof, T., Rosen, S., and de Cheveigné, A. (2014). Rapid FFR: A new technique to rapidly collect the Frequency Following Response (poster). Frequency Following Response Workshop, London, UK.
- Walczak, E., Zhang, J., Schoof, T., Tuomainen, J., Howell, P. (2014). Cortical influences on the brainstem Frequency Following Response in Mandarin fall and rise tone production (poster). International Seminar on Speech Production, Cologne, Germany.
- Schoof, T., and Rosen, S. (2014). Speech perception in noise: The role of age-related declines in auditory and cognitive processing (talk). Hearing Aid Laboratory, Northwestern University, Evanston, IL, USA.
- Schoof, T., and Rosen, S. (2013). The role of age-related declines in auditory and cognitive processing in understanding speech in noise (talk). Speech Science Forum, University College London, London, UK.
- Schoof, T., and Rosen, S. (2013). The role of age-related declines in auditory and cognitive processing in understanding speech in noise (poster). Aging and Speech Communication Conference, Bloomington, IN, USA.
- Schoof, T., and Rosen, S. (2013). The relative contribution of declines in auditory and cognitive processing to speech perception difficulties in noise in older adults (talk). British Society of Audiology Annual Conference, Keele, UK.
- Schoof, T., and Rosen, S. (2013). The role of subcortical encoding in accounting for speech perception in steady-state and amplitude-modulated noise (poster). ARO MidWinter Meeting, Baltimore, MD, USA.
- Schoof, T., and Rosen, S. (2012). Effects of ageing on subcortical encoding of speech in noise (poster). C4AR International Conference. Ageing: Moving Beyond Boundaries. 2012, Lancaster, UK.
- Schoof, T., Green, T., Faulkner, A., and Rosen, S. (2010). Binaural advantage for perceiving speech in noise with simulated bilateral and bimodal hearing devices (talk). Twist Student Conference for Linguistics, University of Leiden, Leiden, The Netherlands.
- Schoof, T., Green, T., Faulkner, A., and Rosen, S. (2010). Binaural advantage for perceiving speech in noise with simulated bilateral and bimodal hearing devices (talk). Improving Cochlear Implant Performance Meeting, University College London Ear Institute, London, UK.

Grants and awards

Research

- 2017 Schoof, T., and Boothalingam, S. *The role of the auditory efferent system in hidden hearing loss in humans*. Flexi grant, Action on Hearing Loss. £4806
- 2014 Schoof, T., and Rosen, S. *Rapid FFR: developing a clinical tool for the rapid assessment of subcortical processing of complex sounds*. Pauline Ashley Small Project Grant, Action on Hearing Loss, £28916

Professional service

- 2016 Schoof, T., and Boothalingam, S. *Talk Global: Communication across borders*. Professional Development Grant, Northwestern University, \$1000.
- Boothalingam, S., and Schoof, T. *Talk Global: Communication across borders*. Catalyst Grant, Northwestern University, \$500.
- Schoof, T., Calcus, A., Shinn-Cunningham, B. *Workshop on the Frequency Following Response*, Intelligent Hearing Systems, \$2000
- Calcus, A., Schoof, T., and Shinn-Cunningham, B. *Frequency Following Response Workshop*, COMIC Award, Compnet, Boston University, \$7400
- 2013 Calcus, A., Colin, C., Schoof, T., and Rosen, S. *Workshop on the Frequency Following Response*. Organisation d'une reunion scientifique, Le Fonds de la Recherche Scientifique (FNRS), €3000
- Schoof, T., Calcus, A., and Rosen, S. *Workshop on the Frequency Following Response*, Support for short meetings and conferences, Guarantors of Brain, £1500
- Calcus, A., Schoof, T., and Rosen, S. *Workshop on the Frequency Following Response*, Brain Products & Brain Vision UK, £3000

Other

- 2016 Schoof, T. Isolating the informational component of speech-on-speech masking. Knowles Postdoctoral Fellow Travel Award, Northwestern University, \$1000.
- Schoof, T. Isolating the informational component of speech-on-speech masking. Postdoctoral Professional Development Travel Award, Northwestern University, \$500.
- 2015 Schoof, T., and Souza, P. ASHA Research mentoring-pair travel award. ASHA Convention 2015, \$1000.
- 2014 Schoof, T. *The role of age-related auditory and cognitive declines in understanding speech in noise*. ARO Travel Award: Graduate Student/Postdoctoral Fellow, ARO. \$500

- 2013 Schoof, T. *The relative contribution of declines in auditory and cognitive processing to speech perception difficulties in noise in older adults*. Student Scholarship. Aging and Speech Communication Conference. \$1000
- Schoof, T. *The relative contribution of declines in auditory and cognitive processing to speech perception difficulties in noise in older adults*. University College London Graduate School Student Conference Fund. £80
- Schoof, T. *The role of subcortical encoding in accounting for speech perception in steady-state and amplitude-modulated noise*. ARO Travel Award: Graduate Student/Postdoctoral Fellow, ARO. \$500
- Schoof, T. *The role of subcortical encoding in accounting for speech perception in steady-state and amplitude-modulated noise*. Defeating deafness ARO travel fellowship, Deafness Research UK. £500
- 2011 Schoof, T., and Rosen, S. *Developing expertise in the measuring and interpretation of auditory brainstem responses to speech*. Visit to the Auditory Neuroscience Laboratory at Northwestern University. Flexi grant, Action on Hearing Loss. £1608

Teaching experience

Lecturer

University College London

- 2015, 2017 Introduction to Event-Related Potential Technique (two guest lectures: *Basic principles of EEG recording; Measurement and statistics*)
- 2014 APD Masterclass, Auditory processing disorders: Current science and clinical practice (lecture: *Speech ABRs in an ageing population*)
- 2012 Speech Sciences: Phonetics, Acoustics and Speech Perception (guest lecture: *Acoustic characteristics of fricatives*)

Northwestern University

- 2016 Statistical analysis in R workshop (introductory session)

Teaching assistant

University College London

- 2015 Introduction to Event-Related Potential Technique
- 2014 Chandler House ERP technique bootcamp
- 2014 Research Design and Experimental Methods
- 2013-2014 Acoustics, signals & systems for audiology
- 2011-2013 MSc Research Design & Statistics
- 2012 Research Methods & Statistics II
- 2011-2012 Speech Sciences: Phonetics, Acoustics and Speech Perception

Private tutor

University College London

2013 MSc Research Design & Statistics

Student mentorship

Northwestern University

2017 Rachel Appleton (AuD), The value of increasing the number of hearing aid channels for noise reduction: The effects on listening effort. *Co-supervised with Pamela Souza.*

University College London

2014 Dominic Pittman (MSc Speech and Language Sciences), Using the frequency following response to investigate the basilar membrane's response to sound. *Co-supervised with Stuart Rosen.*

Hollyana Marler (BSc Speech Sciences), Do the effects of auditory attention extend down to the brainstem? *Co-supervised with Stuart Rosen.*

2013 Yang Wang (MRes Speech Language and Cognition), The effects of attention on the frequency following response. *Co-supervised with Stuart Rosen.*

Jingwei Zhang (MSc Language Sciences), A frequency following response (FFR) investigation of auditory efferent inhibition in the brain stem: A case of fundamental frequency rise and fall in mandarin tones. *Co-supervised with Pete Howell, Jyrki Tuomainen, and Eryk Walczak.*

Professional Service

2016 International Committee member, Northwestern University Postdoctoral Forum

2014, 2016 Co-organised the Frequency Following Response Workshop, Boston, MA, USA, and London, UK

2014 Co-organised Chandler House ERP meetings, University College London, Speech, Hearing and Phonetic Sciences.

Ad-hoc reviewer

Journal of the Acoustical Society of America, Frontiers in Aging Neuroscience, Ear and Hearing, PLOS ONE, International Journal of Audiology, American Journal of Audiology, Helyion, Aging Neuropsychology and Cognition, Journal of the Association for Research in Otolaryngology, Scientific Reports.

Public engagement

- 2017 “Can individual cognitive abilities direct successful hearing aid fitting?”, talk at public engagement event on the effects of ageing on speech communication in difficult listening environments, University College London.
- 2015 “Good listeners and smooth talkers: Spoken communication in a challenging world”, a demonstration at the Royal Institution, London, UK.
- 2013 Co-taught one-day course “Code club: Introduction to programming”, Brentside High School, London, UK
- 2011 “Speaking and Listening in a Noisy World”, a stand at the Royal Society Summer Exhibition, London, UK.