

Advances in Experimental Medicine and Biology 894

Pim van Dijk
Deniz Başkent
Etienne Gaudrain
Emile de Kleine
Anita Wagner
Cris Lanting *Editors*

Physiology, Psychoacoustics and Cognition in Normal and Impaired Hearing



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Editors

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Preface

This volume constitutes the Proceedings of the 17th International Symposium on Hearing (ISH), held from 15 to 19 June 2015 in Groningen, The Netherlands. This meeting continued a great tradition of conferences that started in 1969 and has been held every 3 years. It was the second ISH meeting that took place in Groningen.

The emphasis for the ISH series has traditionally been on bringing together researchers from basic research on physiological and perceptual processes of the auditory system, including modeling. However, this tradition has also meant usually excluding great research on other topics related to hearing sciences, such as hearing impairment, hearing devices, as well as cognitive auditory processes. During the ISH 2015, we have aimed to expand to include such relatively new research, while still continuing with the ISH tradition of basic science. As a result, we had a great program that covered many exciting, and some contemporary, topics from a wide range of disciplines related to auditory sciences.

Following the format of the previous ISH meetings, all chapters were edited by the organizing committee, and these were made available to participants prior to the meeting. The timetable allowed ample time for discussions. The chapters are organized according to broad themes, and their order reflects the order of presentations at the meeting.

We would also like to acknowledge everyone who has contributed to ISH 2015. We would like to thank the Koninklijke Nederlandse Akademie van Wetenschappen (KNAW), Heinsius Houbolt Foundation, The Oticon Foundation, Cochlear Inc., Med-El, Phonak, the Gemeente Groningen, the Provincie Groningen and the Research Institute for Behavioral and Cognitive Neurosciences of the University of Groningen for the financial support. Also thanks to Jellemieke Ekens and Els Jans of the Groningen Congress Bureau for their logistic support. Thanks to Jeanne Clarke, Nawal El Boghdady, Enja Jung, Elouise Koops, Annika Luckmann, Jefta



Fig.1 Conference participants in front of the Familiehotel in Paterswolde

Saija and Mirjan van Dijk for their help during the meeting. Finally we would like to thank all authors and participants for their scientific contributions, and for the lively discussions.

Organising Committee

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Previous ISH Meetings and Books

ISH 2012

Cambridge, United-Kingdom: *Basic Aspects of Hearing, Physiology and Perception*. Edited by B.C.J. Moore, R.D. Patterson, I.M. Winter, R.P. Carlyon, H.E. Gockel. Springer: New York.

ISH 2009

Salamanca, Spain: *The Neurophysiological Bases of Auditory Perception*. Edited by E.A. Lopez-Poveda, A.R. Palmer, R. Meddis. Springer: New York.

ISH 2006

Cloppenburg, Germany: *Hearing-From Sensory Processing to Perception*. Edited by B. Kollmeier, G. Klump, V. Hohmann, U. Langemann, M Mauermann, S. Uppenkamp, J. Verhey. Springer: New York.

ISH 2003

Dourdan, France: *Auditory signal processing: physiology, psychoacoustics, and models*. Edited by D. Pressnitzer, A. de Cheveigné, S. McAdams, L. Collet. Springer: New York.

ISH 2000

Mierlo, Netherlands: *Physiological and psychophysical bases of auditory function*. Edited by D.J. Breebaart, A.J.M. Houtsma, A. Kohlrausch, V.F. Prijs, R. Schoonhoven. Shaker Publishing: Maastricht.

ISH 1997

Grantham, United-Kingdom: *Psychophysical and physiological advances in hearing*. Edited by A.R. Palmer, A. Rees, A.Q. Summerfield, R. Meddis. Whurr Publisher: London.

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Carcans, France: *Auditory Physiology and Perception*. Edited by Y. Cazals, L. Demany and K. Horner. Pergamon: Oxford.

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Tutzing, F.R. Germany: *Facts and models in hearing*. Edited by E. Zwicker, E. Terhardt. Springer Verlag: Berlin.

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Eindhoven, Netherlands: *Hearing theory*. Edited by B.L. Cardozo. IPO: Eindhoven.

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Driebergen, Netherlands: *Frequency analysis and periodicity detection in hearing*. Edited by R. Plomp, G.F. Smoorenburg. Sijthoff: Leiden.

Contents

Effects of Age and Hearing Loss on the Processing of Auditory Temporal Fine Structure	1
Brian C. J. Moore	
Aging Effects on Behavioural Estimates of Suppression with Short Suppressors	9
Erica L. Hegland and Elizabeth A. Strickland	
Contributions of Coding Efficiency of Temporal-Structure and Level Information to Lateralization Performance in Young and Early-Elderly Listeners	19
Atsushi Ochi, Tatsuya Yamasoba and Shigeto Furukawa	
Investigating the Role of Working Memory in Speech-in-noise Identification for Listeners with Normal Hearing	29
Christian Füllgrabe and Stuart Rosen	
The Contribution of Auditory and Cognitive Factors to Intelligibility of Words and Sentences in Noise	37
Antje Heinrich and Sarah Knight	
Do Hearing Aids Improve Affect Perception?	47
Juliane Schmidt, Diana Herzog, Odette Scharenborg and Esther Janse	
Suitability of the Binaural Interaction Component for Interaural Electrode Pairing of Bilateral Cochlear Implants	57
Hongmei Hu, Birger Kollmeier and Mathias Dietz	
Binaural Loudness Constancy	65
John F. Culling and Helen Dare	

Intelligibility for Binaural Speech with Discarded Low-SNR Speech Components	73
Esther Schoenmaker and Steven van de Par	
On the Contribution of Target Audibility to Performance in Spatialized Speech Mixtures	83
Virginia Best, Christine R. Mason, Jayaganesh Swaminathan, Gerald Kidd, Kasey M. Jakien, Sean D. Kappel, Frederick J. Gallun, Jörg M. Buchholz and Helen Glyde	
Optimization of a Spectral Contrast Enhancement Algorithm for Cochlear Implants Based on a Vowel Identification Model	93
Waldo Nogueira, Thilo Rode and Andreas Büchner	
Roles of the Contralateral Efferent Reflex in Hearing Demonstrated with Cochlear Implants	105
Enrique A. Lopez-Poveda, Almudena Eustaquio-Martín, Joshua S. Stohl, Robert D. Wolford, Reinhold Schatzer and Blake S. Wilson	
Deactivating Cochlear Implant Electrodes Based on Pitch Information for Users of the ACE Strategy	115
Deborah Vickers, Aneeka Degun, Angela Canas, Thomas Stainsby and Filiep Vanpoucke	
Speech Masking in Normal and Impaired Hearing: Interactions Between Frequency Selectivity and Inherent Temporal Fluctuations in Noise	125
Andrew J. Oxenham and Heather A. Kreft	
Effects of Pulse Shape and Polarity on Sensitivity to Cochlear Implant Stimulation: A Chronic Study in Guinea Pigs	133
Olivier Macherey and Yves Cazals	
Assessing the Firing Properties of the Electrically Stimulated Auditory Nerve Using a Convolution Model	143
Stefan B. Strahl, Dyan Ramekers, Marjolijn M. B. Nagelkerke, Konrad E. Schwarz, Philipp Spitzer, Sjaak F. L. Klis, Wilko Grolman and Huib Versnel	
Modeling the Individual Variability of Loudness Perception with a Multi-Category Psychometric Function	155
Andrea C. Trevino, Walt Jesteadt and Stephen T. Neely	

Auditory fMRI of Sound Intensity and Loudness for Unilateral Stimulation	165
Oliver Behler and Stefan Uppenkamp	
Tinnitus- and Task-Related Differences in Resting-State Networks	175
Cris Lanting, Aron Woźniak, Pim van Dijk and Dave R. M. Langers	
The Role of Conduction Delay in Creating Sensitivity to Interaural Time Differences	189
Catherine Carr, Go Ashida, Hermann Wagner, Thomas McColgan and Richard Kempster	
Objective Measures of Neural Processing of Interaural Time Differences	197
David McAlpine, Nicholas Haywood, Jaime Undurraga and Torsten Marquardt	
Minimum Audible Angles Measured with Simulated Normally-Sized and Oversized Pinnae for Normal-Hearing and Hearing-Impaired Test Subjects	207
Filip M. Rønne, Søren Laugesen, Niels S. Jensen and Julie H. Pedersen	
Moving Objects in the Barn Owl's Auditory World	219
Ulrike Langemann, Bianca Krumm, Katharina Liebner, Rainer Beutelmann and Georg M. Klump	
Change Detection in Auditory Textures	229
Yves Boubenec, Jennifer Lawlor, Shihab Shamma and Bernhard Englitz	
The Relative Contributions of Temporal Envelope and Fine Structure to Mandarin Lexical Tone Perception in Auditory Neuropathy Spectrum Disorder	241
Shuo Wang, Ruijuan Dong, Dongxin Liu, Luo Zhang and Li Xu	
Interaction of Object Binding Cues in Binaural Masking Pattern Experiments	249
Jesko L. Verhey, Björn Lübken and Steven van de Par	
Speech Intelligibility for Target and Masker with Different Spectra	257
Thibaud Leclère, David Théry, Mathieu Lavandier and John F. Culling	
Dynamics of Cochlear Nonlinearity	267
Nigel P. Cooper and Marcel van der Heijden	
Responses of the Human Inner Ear to Low-Frequency Sound	275
Markus Drexler, Eike Krause, Robert Gürkov and Lutz Wiegand	

Suppression Measured from Chinchilla Auditory-Nerve-Fiber Responses Following Noise-Induced Hearing Loss: Adaptive-Tracking and Systems-Identification Approaches 285
 Mark Sayles, Michael K. Walls and Michael G. Heinz

Does Signal Degradation Affect Top–Down Processing of Speech? 297
 Anita Wagner, Carina Pals, Charlotte M. de Blecourt, Anastasios Sarampalis Deniz Başkent

The Effect of Peripheral Compression on Syllable Perception Measured with a Hearing Impairment Simulator 307
 Toshie Matsui, Toshio Irino, Misaki Nagae, Hideki Kawahara and Roy D. Patterson

Towards Objective Measures of Functional Hearing Abilities 315
 Hamish Innes-Brown, Renee Tsongas, Jeremy Marozeau and Colette McKay

Connectivity in Language Areas of the Brain in Cochlear Implant Users as Revealed by fNIRS 327
 Colette M. McKay, Adnan Shah, Abd-Krim Seghouane, Xin Zhou, William Cross and Ruth Litovsky

Isolating Neural Indices of Continuous Speech Processing at the Phonetic Level 337
 Giovanni M. Di Liberto and Edmund C. Lalor

Entracking as a Brain Stem Code for Pitch: The Butte Hypothesis 347
 Philip X Joris

Can Temporal Fine Structure and Temporal Envelope be Considered Independently for Pitch Perception? 355
 Nicolas Grimault

Locating Melody Processing Activity in Auditory Cortex with Magnetoencephalography 363
 Roy D. Patterson, Martin Andermann, Stefan Uppenkamp and André Rupp

Studying Effects of Transcranial Alternating Current Stimulation on Hearing and Auditory Scene Analysis 371
 Lars Riecke

Functional Organization of the Ventral Auditory Pathway 381
 Yale E. Cohen, Sharath Bennur, Kate Christison-Lagay, Adam Gifford and Joji Tsunada

Neural Segregation of Concurrent Speech: Effects of Background Noise and Reverberation on Auditory Scene Analysis in the Ventral Cochlear Nucleus	389
Mark Sayles, Arkadiusz Stasiak and Ian M. Winter	
Audio Visual Integration with Competing Sources in the Framework of Audio Visual Speech Scene Analysis	399
Attigodu Chandrashekara Ganesh, Frédéric Berthommier and Jean-Luc Schwartz	
Relative Pitch Perception and the Detection of Deviant Tone Patterns	409
Susan L. Denham, Martin Coath, Gábor P. Háden, Fiona Murray and István Winkler	
Do Zwicker Tones Evoke a Musical Pitch?	419
Hedwig E. Gockel and Robert P. Carlyon	
Speech Coding in the Midbrain: Effects of Sensorineural Hearing Loss	427
Laurel H. Carney, Duck O. Kim and Shigeyuki Kuwada	
Sources of Variability in Consonant Perception and Implications for Speech Perception Modeling	437
Johannes Zaar and Torsten Dau	
On Detectable and Meaningful Speech-Intelligibility Benefits	447
William M. Whitmer, David McShefferty and Michael A. Akeroyd	
Individual Differences in Behavioural Decision Weights Related to Irregularities in Cochlear Mechanics	457
Jungmee Lee, Inseok Heo, An-Chieh Chang, Kristen Bond, Christophe Stoelinga, Robert Lutfi and Glenis Long	
On the Interplay Between Cochlear Gain Loss and Temporal Envelope Coding Deficits	467
Sarah Verhulst, Patrycja Piktel, Anoop Jagadeesh and Manfred Mauermann	
Frequency Tuning of the Efferent Effect on Cochlear Gain in Humans	477
Vit Drga, Christopher J. Plack and Ifat Yasin	

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