Arthur Boothroyd, Ph.D. **Resumé** **revised: January 2017**

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PERSONAL

Born, United Kingdom	Oct 23, 1936
Emigrated, US	1968
Naturalized US Citizen	1978

EDUCATION

B.Sc.	Honors Physics, U. of Hull (U.K.)	1957
Ph.D.	Audiology and Education of the Deaf, U. of Manchester (U.K.)	1968

CERTIFICATIONS

CCC Audiology, ASLHA	1972-
Instructor, Council for Accreditation in Occupational Hearing Conservation	1974

FULL-TIME EMPLOYMENT

General Electric Company (U.K.): Graduate Trainee	1957-1958
City of Manchester (U.K.):	
Chorlton Grammar School, Asst. Physics Teacher	1958-1960
Head of Physics, Urmston Grammar School	1960-1962
University of Manchester (U.K.):	
Leverhulme Research Fellow	1962-1964
Assistant Professor of Audiology	1964-1968
The Clarke School for the Deaf, Northampton, MA:	
Director of Research and Clinical Services	1968-1981
City University of New York:	
Grant associate and visiting professor	1981-1982
Associate Professor	1982-1984
Professor	1984-1987
Distinguished Professor	1987-2000

ADDITIONAL PART-TIME EMPLOYMENT

University of Rhode Island	1968-1972
Smith College	1968-1998
Northeastern University	1970-1971

University of Massachusetts	1972-1977
San Diego State University	1999-
National University	2001-2004
Gallaudet University	2003-2013
House Research Institute	2001-2012

MEMBERSHIPS

American Speech, Language, Hearing Association (Fellow)
British Society of Audiology (Founder member and Honorary Life Member)
Alexander Graham Bell Association for the Deaf
Acoustical Society of America
American Academy of Audiology
American Auditory Society
International Collegium of Rehabilitative Audiology

HONORS AND AWARDS

ASLHA 2nd Award For Scientific Merit For Convention Exhibit On Speech-training Aids (with Maki, Bellinger, Houde, Bragges, Levitt, and Head)	1979
ASLHA Fellowship	1984
JSHR Editor's Award For Best Paper of 1984	1985
NY League for the Hard-of-Hearing, H. Jonas achievement award	1985
NY State SLHA Distinguished achievement award	1988
Beltone Distinguished Teaching Award	1988
ASLHA Outstanding Clinical Achievement Award	1988
ASLHA 1st Award For Presentation For Exhibit On Video Laserdiscs (with Yeung, Hnath-Chisolm, and Hanin)	1988
Ear and Hearing, Editor's Award for Outstanding Research Paper of 1994 (with Medwetsky, and Erickson)	1995
Carhart Memorial Lecturer, American Auditory Society	2000
Sherman Memorial Lecturer, Ear Foundation, Nottingham (UK)	2003
Distinguished Visiting Scientist, House Ear Institute	2005
Lifetime Achievement Award, Hear Foundation	2009
Lifetime Achievement Award, American Auditory Society	2012

PROFESSIONAL ACTIVITIES

Program chair, Annual Convention of AG Bell Association for the Deaf	1976
Program committee member, Annual Convention of NY State SLHA	1982
Associate editor, JSHR	1979-1983
Member, Natl. Advisory Council, Model Secondary School for the Deaf	1983-1986
Chairman, Publications Committee, AG Bell Association for the Deaf	1984-1986
Study section member, NIH Division of Research Grants	1988-1992
Member, Research Planning Task Force, NIDCD	1989,1992
Visiting Professor, U of Tel Aviv, Feb-Apr	1989
Visiting Professor, U of Melbourne, May-Jun	1989
Visiting Professor, Catholic U of Sao Paulo, April	1990
Visiting Professor, U of Sao Paulo, March	1994
Program Chair, Arrowhead conference on advanced hearing aid research	1996
Advisory Board member, Auditory/Oral School of New York	1999-
Advisory Board member, CCHAT Center, San Diego	2000-2008
Associate Editor, J. of the Association for Research in Otolaryngology	2000-2005

JOURNAL PUBLICATIONS, CHAPTERS, AND PROCEEDINGS

1965-1969

Boothroyd, A. (1965). Provision of better earmolds for deaf children. Brit J Laryngol Otol, 79, 320-335.

Boothroyd, A. (1967). Discrimination by partially hearing children of frequency-distorted speech. Int Audiol, 6, 136-145.

Boothroyd, A. (1967). Theoretical aspects of auditory training. Proc. International Conference on Oral Education of the Deaf. Washington, D.C.: A.G. Bell Association for the Deaf.

Boothroyd, A. (1968). Developments in speech audiometry. Brit J Audiol, 2, 3-10.

Boothroyd, A. (1968). Statistical theory of the speech discrimination score. J Acoust Soc Amer, 43, 362-367.

1970-1974

Boothroyd, A., & Cawkwell, S. (1970). Vibrotactile thresholds in pure tone audiometry. Acta Otolaryngologica, 69, 381-387.

Boothroyd, A. (1970). Developmental factors in speech recognition. Int Audiol, 9, 30-38.

Boothroyd, A. (1971). Acoustics of Speech. In L. Connor (Ed.), Speech for the Deaf Child: Knowledge and Use. Washington, D.C.: A.G. Bell Association.

Boothroyd, A. (1971). Audiology in a private school for the deaf. J Rehab Audiol, 4, 4-10.

Boothroyd, A. (1972). Audiological evaluation of severely and profoundly deaf children. In G. Fant (Ed.), Speech Communication Ability and Profound Deafness (pp. 47-55). Washington, D.C.: A.G. Bell Association for the Deaf.

Boothroyd, A. (1972). Control of voice pitch by the deaf, an experiment using a visible pitch device (with M. Decker). Int Audiol, 11, 343-353.

Boothroyd, A. (1972). Sensory aids research project at the Clarke School for the Deaf. In G. Fant (Ed.), Speech Communication Ability and Profound Deafness. Washington, DC: A.G. Bell Association for the Deaf.

Boothroyd, A. (1972). Some comments on the use of classroom amplification equipment with children having sensitivity to high intensity low frequency sound only. Proceedings of International Congress on Education of the Deaf, Stockholm. A.G. Bell Association for the Deaf, 1, 58-59.

Boothroyd, A. (1973). Experiments on the control of voice in the profoundly deaf. IEEE Transac audio and electroacoust, 21, 274-278.

Boothroyd, A. (1974). Teacher/researcher interaction: a model and an example. Proc 46th meeting of the convention of American Instructors of the Deaf. Washington DC: US Govt. printing office, pp122-129.

1975-1979

Boothroyd, A. (1975). Technology and Deafness. Volta Rev, 77, 27-34.

Boothroyd, A. (1975). Use of a computer based system of speech training aids (with P. Archambault, R. Adams, and R. Storm). Volta Rev, 77, 178-192.

Boothroyd, A. (1976). Cochlear and Acoustic Nerve Implants. In B. J. Jaffe (Ed.), Hearing Loss in Children: A Comprehensive Text. Baltimore: University Park Press.

Boothroyd, A. (1976). Sensory Aids for the Deaf. In B. J. Jaffe (Ed.), Hearing Loss in Children: A Comprehensive Text. Baltimore: University Park Press.

Stevens, K. N., Nickerson, R. S., Boothroyd, A., & Rollins, A. M. (1976). Assessment of nasalization in the speech of deaf children. J Speech Hear Res, 19, 393-416.

Boothroyd, A. (1978). Speech Perception and Sensorineural Hearing Loss. In M. Ross & G. Giolas (Eds.), Auditory Management of the Hearing-Impaired Child. Baltimore: University Park Press.

1980-1984

Boothroyd, A. (1980). Audiological Consideration in Music for the Deaf. In C. Robbins & C. Robbins, Music for the Hearing Impaired and Other Special Groups. St. Louis: Magnamusic Baton.

Boothroyd, A. (1981). Group Hearing Aids. In F. H. Bess, B. A. Freeman, & J. S. Sinclair (Eds.), Amplification in Education. Washington: A.G. Bell Association for the Deaf.

Boothroyd, A. (1982). Communication aids for the deaf. In V. W. Stern & M. R. Redden (Eds.), Technology for Independent Living. Washington: American Association for the Advancement of Science.

Boothroyd, A., & Levitt, H. (1982). Computers and the education of hearing-impaired children: Possibilities and limitations. In J. Raviv (Ed.), Uses of Computers in Aiding the Disabled. Amsterdam: North-Holland Publishing Co.
Boothroyd, A. (1983). Evaluation of Speech. In I. Hochberg, H. Levitt, & M. J. Osberger (Eds.), Speech of the Hearing-impaired: Research, Training, and Personal Preparation. Baltimore: University Park Press.
Boothroyd, A. (1983). The multiply handicapped, hearing-impaired child: Assessment and intervention from a developmental perspective. In S. E. Gerber & G. Mencher (Eds.), Assessment and Intervention in the Multiply Handicapped, Hearing-impaired Child. New York: Grune and Stratton.
Boothroyd, A. (1984). Auditory perception of speech contrasts by subjects with sensorineural hearing loss. J Speech Hear Res, 27, 134-144.
Boothroyd, A. (1984). Experiments with a tactile pitch display. Proc 8th Int Conf on Rehabilitation Engineering. Ottawa, Canada.
Boothroyd, A. (1984). Getting the most out of hearing: the audiological and auditory management of hearing-impaired children. Audiology, 9, 15-28.

1985-1989

Boothroyd, A. (1985). A wearable tactile intonation display for the deaf. IEEE Trans. Acoust, Speech Signal Process. 33, 111-117.
Boothroyd, A. (1985). Auditory capacity and the generalization of speech skills. In: Lauter, J.(Ed.), Speech planning and production in normal and hearing-impaired children. ASHA Reports #15, 8-14.
Boothroyd, A. (1985). Evaluation of speech production in the hearing-impaired: Some benefits of forced-choice testing. J Speech Hear Res, 28, 185-196.
Boothroyd, A., Hanin, L., & Hnath, T. (1985). A sentence test of speech perception: reliability, set equivalence, and short-term learning. Unpublished report #RCI10. City University of New York.
Boothroyd, A. (1986). Compression-limited amplification for the profoundly deaf. Proc 9th Annual Conference on Rehabilitation Technology. Association for the Advancement of Rehabilitation Technology, Washington, 69-71.
Boothroyd, A. (1986). Speech acoustics and speech perception. Pro-Ed series in Communication Disorders.
Boothroyd, A. (1986). Speech of deaf people. In: The Gallaudet Encyclopedia of Deafness and Deaf People. New York, McGraw Hill, 191-195.
Boothroyd, A., & Hnath, H. (1986). Tactile supplements to lipreading. J Rehab Res & Dev, 23, 139-146.
Boothroyd, A., Balkany, T. J., Geers, A., Hayes, A., McFarland, W., Miyamoto, R. T., Novak, M., & Shallop, J. K. (1986). Issues of pre- and post-implant evaluation regarding cochlear implants in children. Seminars in Hearing, 7, 349-359.
Boothroyd, A. (1987). Management of profound sensorineural hearing loss in children: Possibilities and pitfalls of cochlear implants. Annals Otol Rhinol Laryngol, 96, Suppl.128, 84.
Boothroyd, A. (1987). Perception of speech pattern contrasts via cochlear implants and limited hearing. Ann Otol Rhinol Laryngol, 96, Suppl.128, 58-62.
Boothroyd, A. (1987). Technology and Science in the management of deafness. Amer Annals of the Deaf, 132, 326-329.
Rubinstein, A., & Boothroyd, A. (1987). The effect of two approaches to auditory training on speech recognition by hearing-impaired adults. J Speech Hear Res, 30, 153-160.
Boothroyd, A. (1987). CASPER: Computer-assisted speech perception evaluation and training. Proceedings of the 10th annual conference on Rehabilitation Technology. Washington, D.C., Association for the Advancement of Rehabilitation Technology, 734-736.
Boothroyd, A., Hanin, L., & Waltzman, S. (1987). Development of speech perception skills in cochlear implantees. Proceedings of the 10th Annual conference on Rehabilitation Technology, Association for the Advancement of Rehabilitation Technology, 428-430.
Boothroyd, A. (1987). Experiments with a two-channel, compression-limiting amplification system designed for profoundly deaf subjects. Proceedings of the 10th annual conference on Rehabilitation Technology. Washington, D.C., Association for the Advancement of Rehabilitation Technology, 404-406.
Boothroyd, A. (1987). Portapitch II: A multichannel, tactile display of voice fundamental frequency. Proceedings of the 10th annual conference on Rehabilitation Technology. Washington, D.C., Association for the Advancement of Rehabilitation Technology, 425-427.

Boothroyd, A., Springer, N., Smith, L., & Schulman, J. (1988). Amplitude compression and profound hearing loss. J Speech Hear Res, 31, 362-376.
Boothroyd, A. (1988). Hearing Impairments in Young Children. Washington, D.C.: A. G. Bell Association for the Deaf. (Previously published in 1982 by Prentice Hall, Englewood Cliffs, NJ.)
Boothroyd, A. (1988). Linguistic factors in speechreading. Volta Review monograph, 90, 77-87.
Boothroyd, A., and Nittrouer, S. (1988). Mathematical treatment of context effects in phoneme and word recognition. J Acoust Soc Amer, 84, 101-114.
Boothroyd, A. (1988). Perception of speech pattern contrasts from auditory presentation of voice fundamental frequency. Ear and Hearing, 9, 313-321.
Boothroyd, A., & Hnath-Chisolm, T. (1988). Spatial, tactile presentation of voice fundamental frequency as a supplement to lipreading: Results of extended training with a single subject. J Rehab Res Dev, 25, 51-56.
Boothroyd, A., Hnath-Chisolm, T., Hanin, L., & Kishon-Rabin, L. (1988). Voice fundamental frequency as an auditory supplement to the speechreading of sentences. Ear and Hearing, 9, 306-312.
Hanin, L., Boothroyd, A., & Hnath-Chisolm, T. (1988). Tactile presentation of voice fundamental frequency as an aid to the speechreading of sentences. Ear and Hearing, 9, 335-341.
Yeung, E., Boothroyd, A., & Redmond, C. (1988). A wearable multichannel tactile display of voice fundamental frequency. Ear and Hearing, 9, 342-350.
Boothroyd, A. (1989). Developing and evaluating a tactile speechreading aid. Volta Review monograph, 91, 101-112.
Boothroyd, A. (1989). Hearing aids, cochlear implants, and hearing impaired children. In Owens & Kessler (Eds.), Cochlear Implants in Young Deaf Children. (pp. 81-99). Boston: Little Brown & Co.

1990-1994

Boothroyd, A. (1990). Signal processing for the profoundly deaf. Arch Otolaryngol, Suppl 469, 166-171.
Boothroyd, A. (1990). Impact of technology on the management of deafness. In: S.R. Silverman and P.B. Kricos (Eds.), The Alexander Graham Bell Association for the Deaf: A Centennial Review, Volta Review Monograph # 92, 74-82.
Lahey, M., Flax, J., Harris, K., & Boothroyd, A. (1990). Vocal fundamental frequency variability in young children: Comments on Robb and Saxman(1985). J Speech Hear Res, 33, 619-621.
Nittrouer, S., & Boothroyd, A. (1990). Context effects in phoneme and word recognition by young children and older adults. J Acoust Soc Amer, 87, 2705-2715.
Boothroyd, A. (1991). Assessment of speech perception capacity in profoundly deaf children. Amer J Otol, 12 (suppl), 67-72.
Boothroyd, A. (1991). Speech perception measures and their role in the evaluation of hearing aid performance in a pediatric population. In: J.A. Feigin and P.G. Stelmachowicz (Eds.), Pediatric amplification, pp 77-91. Nebraska: Boys Town National Research Hospital: Omaha.
Boothroyd, A., Geers, A. E., & Moog, J. S. (1991). Practical implications of cochlear implants in children. Ear and Hearing, 12, 81s-89s. (Suppl.)
Flax, J., Lahey, M., Harris, K., & Boothroyd, A. (1991). Relations between prosodic variables and communicative functions. J Child Lang, 18, 3-19.
Boothroyd, A. (1992). The FM wireless link: an invisible microphone cable. In: M. Ross (ed.), FM auditory training systems. Timonium, MD: York Press
Boothroyd, A. (1992). PE 471R FM Binaural auditory training system: Audiological fitting guide. Petaluma, CA: Phonic Ear Inc.
Boothroyd, A., & Medwetsky, L. (1992). Spectral distribution of /s/ and the frequency response of hearing aids. Ear and Hearing, 13, 150-157.
Hnath-Chisolm, T., & Boothroyd, A. (1992). Speechreading enhancement by fundamental frequency: the effects of Fo contour distortions. J Speech Hear Res, 35, 1160-1168.
Boothroyd, A., Waldstein, R., & Yeung, E. (1992). Investigations into the auditory Fo speechreading enhancement effect using a sinusoidal replica of the Fo contour. Proc. Intl. Conf. on Spoken Language Processing, Banff.
Hochberg, I., Boothroyd, A., Weiss, M., & Hellman, S. (1992). Effects of noise and noise suppression on speech perception by cochlear implantees. Ear and Hearing, 13, 263-271.

Boothroyd, A., Hanin, L., Yeung, E., & Chen, Q. (1992). Video-game for speech perception testing and training of young hearing-impaired children. Proceedings of the Johns Hopkins national search for computing applications to assist persons with disabilities.

Boothroyd, A. (1993). Profound deafness and cochlear implants. In R. Tyler (Ed.), Cochlear Implants (pp. 1-33). San Diego, CA: Singular Publishing.

Boothroyd, A. (1993). Recovery of speech perception performance after prolonged auditory deprivation: a case study. J Amer Acad Audiol, 4, 331-336.

Boothroyd, A. (1993). Review of Kent, R. (Ed.), Intelligibility in speech disorders. Language and Speech, 36.

Boothroyd, A. (1993). Speech perception, sensorineural hearing loss, and hearing aids. In Studebaker G and Hochberg I (Ed.), Acoustical factors affecting hearing aid performance. MA: Allyn and Bacon: Boston.

Boothroyd, A., Erickson, F., & Medwetsky, L. (1994). The hearing aid input: a phonemic approach to assessing the spectral distribution of speech. Ear and Hearing, 15, 432-442.

Boothroyd, A. (1994). Speech perception. Current Opinion in Otolaryngology & Head and Neck Surgery. 2(2), 186-194.

Waldstein & Boothroyd (1994). Speechreading enhancement using a sinusoidal substitute for voice fundamental frequency. Speech communication, 14, 303-312.

Boothroyd, A. and Eran, O. (1994). Auditory speech perception capacity of child implant users expressed as equivalent hearing loss. Volta Review, 96, (#5, monograph), 151-167.

1995-1999

Waldstein and Boothroyd (1995). Comparison of two multichannel tactile devices as supplements to speechreading in a postlingually deafened adult. Ear and Hearing, 16, 198-208.

Boothroyd, A. (1995). Speech perception tests and hearing-impaired children. In: G. Plant and K. E. Spens (Eds.). Profound deafness and speech communication. (pp 345-371). London, Whurr Publishers.

Boothroyd, A., Kishon-Rabin, L., and Waldstein, R. (1995). Studies of tactile speechreading enhancement in deaf adults. Seminars in Hearing. 16, 328-342.

Waldstein & Boothroyd (1996). Speechreading supplemented by single-channel and multichannel tactile displays of voice fundamental frequency. J Speech Hear Res, 38, 690-705.

Li, A., and Boothroyd, A. (1996). Speech perception of temporally reversed syllables by normally hearing adults. Chinese Medical Journal (Taipei), 57, 1-6.

Sandridge, S.A. and Boothroyd, A. (1996). Using naturally-produced speech to elicit the mismatch negativity. J Amer Acad Audiol, 7, 105-112.

Boothroyd, A., Hanin, L., and Eran, O. (1996). Speech perception and production in children with hearing impairment. In: F.H. Bess, J.S. Gravel, and A.M. Tharpe (Eds.). Amplification for children with auditory deficits. (pp 55-74). Nashville, TN: Bill Wilkerson Center Press.

Kishon-Rabin, L., Boothroyd, A., & Hanin, L. (1996). Speechreading enhancement using a spatial-tactile display of voice fundamental frequency (Fo): comparison with auditory Fo. J Acoust Soc Amer, 100, 593-602.

Boothroyd, A., Mulhearn, B., Gong, J., and Ostroff, J. (1996). Effects of spectral smearing on phoneme recognition in quiet and noise. J Acoust Soc Amer. 100, 1807-1818.

Boothroyd, A., Mulhearn, B., Gong, J., and Ostroff, J. (1997). Simulation of sensorineural hearing loss: reducing spectral resolution by linear frequency smearing. In: W. Jestaedt (Ed.). Modeling of sensorineural hearing loss. Chapter 19, pp 313-327, NJ, Lawrence Erlbaum.

Boothroyd, A. (1997). Auditory development of the hearing child. Scand Audiol, 26, (Suppl. 46), 9-16.

Boothroyd, A. (1997). Auditory capacity of hearing-impaired children using hearing aids and cochlear implants: issues of efficacy and assessment. Scand Audiol, 26, (Suppl. 46), 17-25.

Boothroyd, A. (1998). Childhood deafness: the complexities of management. In: A.K. Lalwani and K.M. Grundfast (Eds.), Pediatric Otol Neurol. Chapter 50, pp 697-705. Philadelphia, Lippincott.

Hnath-Chisolm, T.E., Laippley, E., and Boothroyd, A. (1998). Age-related changes on a children's test of sensory-level speech perception capacity. J Speech Hear Res, 41, 94-106.

Boothroyd, A. (1998). Evaluating the efficacy of hearing aids and cochlear implants in children who are hearing-impaired. In F. H. Bess(Ed.). Children with hearing impairment: Contemporary trends. Chapter 18, pp 249-260. Nashville, TN: Vanderbilt Bill Wilkerson Center Press.

Boothroyd, A. (1998). The perception of speech by hearing-impaired children. In: A. Weizel (Ed.), Issues unresolved: New perspectives on language and deaf education. Chap 8. pp 103-116. Washington, D.C., Gallaudet University Press.

Boothroyd. A. and Iglehart, F. (1998). Experiments with classroom FM amplification. Ear and Hearing, 19, 202-217.

Ostroff, J. M., Martin, B. A., and Boothroyd, A. (1998) Cortical evoked response to acoustic change within a syllable. Ear & Hearing, 19, 290-297

Martin, B. A., and Boothroyd, A. (1999). Cortical, auditory, event-related potentials in response to periodic and aperiodic stimuli with the same spectral envelope. Ear and Hearing, 20, 33-44.

2000-2004

Boothroyd A (2000). Management of hearing loss in children: no simple solutions. In: Seewald RC (Ed). A Sound Foundation through Early Amplification. Phonak AG.

Martin, B.A., and Boothroyd, A. (2000). Cortical, auditory, evoked potentials in response to changes of spectrum and intensity. J Acoust Soc Amer, 107, 2155- 2161.

Mackersie, C.L., Boothroyd, A. and Prida, T. (2000). Use of a simultaneous sentence test to enhance sensitivity to ease of listening. J Speech Lang Hear Res. 43, 675-682.

Eisenberg, L.S., Shannon, R.V., Martinez, A.S., Wygonski, J, and Boothroyd, A. (2000). Speech recognition with reduced spectral cues as a function of age. J Acoust Soc Amer, 107, 2704-2724.

Boothroyd, A. (2001). Aides Auditives, Implants Cochléaires et Aides Tactiles: Passé, Présent et Avenir. Les Cahiers de l'Audition. 14, 19-28.

Mackersie, C.L., Boothroyd, A., and Minnear, D. (2001). Evaluation of the Computer-Assisted Speech Perception Test (CASPA). J Amer Acad Audiol. 12, 390-396.

Boothroyd, A. and Boothroyd-Turner, D. (2002). Post-Implant Audition and Educational Attainment in Children with Prelingually-Acquired Profound Deafness. Ann Otol Rhinol Laryngol, 111, suppl. 189, 79-84.

Boothroyd, A. (2002). Influencia del Contexto en la Percepción del Lengaje Hablado. In: Proc. Congreso Internacional de Foniatría, Audiología, Logopedia y Psicología del lenguaje. Universidad Pontificia de Salamanca.

Kosky, C. and Boothroyd, A. (2003). Perception and production of sibilants by children with hearing loss: A training study. Volta Review, 103, 71-98.

Kosky, C. and Boothroyd A. (2003). Validation of an on-line implementation of the imitative test of speech pattern contrast perception (IMSPAC). J Amer Acad Audiol, 14, 72-83.

Boothroyd, A (2003). Hearing Aids and Room Acoustics. The Hearing Journal, 56(10), 10-17.

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Boothroyd, A. (2004). Hearing aid accessories for adults: the remote FM microphone. Ear and Hearing, 25, 22-33.

Boothroyd, A. (2004). Room acoustics and speech perception. Seminars in Hearing, 25, 155-166.

Boothroyd, A. (2004). Room acoustics and speech reception: a model and some implications. Fabry, D., and DeConde Johnson, C. (Eds.). ACCESS: Achieving Clear Communication Employing Sound Solutions - 2003. Chapter 22, pp207-216. Phonak.

Boothroyd, A. (2004). Measuring auditory speech perception capacity in very young children. In Miyamoto, R. (Ed.). Cochlear Implants: Proceedings of the 8th International Cochlear Implant Conference. International Congress Series 1273. pp 292-295. Netherlands: Elsevier.

Goldberg, D., Lonsbury-Martin, B.L., Sandridge, S.A., Diefendorf, A.O. and Boothroyd, A. (2004). Auditory diagnostics: the state of the art. In: Spoken language options in the 21st. century: predicting future trends in deafness. Proceedings of the 2004 Summit in Deafness. pp 8-11. Washington, D.C.: A. G. Bell Association for the Deaf.

2005–2009

Boothroyd, A. (2005). Modeling room acoustics. Chapter 2 in: Crandell, CC., Smaldino, JJ., and Flexer, CA. Sound-field FM Amplification: applications to speech perception and classroom acoustics. Second Edition. Thompson, Delmar Learning.

Boothroyd, A. (2005). Measuring auditory speech-perception capacity in young children. In: R.C. Seewald and J.M. Bamford (Eds.), A Sound Foundation through Early Amplification: Proceedings of the 3rd International Conference. Chapter 9, 129–140. Phonak AG.

Boothroyd, A. (2006). Characteristics of listening environments: Benefits of binaural hearing and implications for bilateral management. Int J Audiol, 45, Suppl. 1, S12-S19.

Boothroyd, A. (2006). CASPERSENT: programme de test et d'entraînement à la perception de phrase orales assisté par ordinateur. Cahiers de l'audition, 19(5), 9-18.

Boothroyd, A. (2006). Thinking outside the hearing aid: FM wireless accessories. Chapter 18 in: Palmer, C., & Seewald, R. Hearing Care for Adults 2006. pp 229-236. Phonak. AG.

Boothroyd, A. (2007). Adult aural rehabilitation: What is it and does it work? Trends in Amplification, 11, 63-71.

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Eisenberg, L.S., Martinez, A.S., & Boothroyd, A.. (2007). Assessing auditory capabilities in young children, Int J Ped Otorhinolaryngol. 71, 1339-1350.

Boothroyd A. (2007): Guest editor: Wireless technology is driving a hearing aid metamorphosis. The Hearing Journal, 60, (11).

Martinez, A., Eisenberg, L., Boothroyd, A., and Visser-Dumont, L. (2008). Assessing speech pattern contrast perception in infants: early results on VRASPAC. Otol and Neurol, 29, 183-188.

Boothroyd, A. (2008). The Acoustic Speech Signal. Chapter 17 in: Madel and Flexer (Eds) Pediatric Audiology. pp 159-167. Thieme, NY.

Boothroyd, A. (2008). The Performance/Intensity function: an underused resource. Ear and Hearing, 29, 479-491.

Boothroyd, A., (2008). CasperSent: A program for computer-assisted speech perception testing and training at the sentence level. Journal of the Academy of Rehabilitative Audiology. 41, 31-52.

Mackersie C, Qi Y, Boothroyd A, Conrad N. (2009). Evaluation of cell phone technology with digital hearing aid features: Effects of encoding and individualized amplification. J Amer Acad Audiol. 20, 1-25.

Boothroyd, A. (2009). Assessment of auditory speech-perception capacity. Chapter 9 in Eisenberg, L.S., (Ed). Clinical management of children with cochlear implants. pp 189-216. Plural Publishing, San Diego CA.

2010-2014

Martin, B.A., Boothroyd, A., Alli, D., and Leach-Berth, T. (2010). Stimulus presentation strategies for eliciting the acoustic change complex: increasing efficiency. Ear and Hearing, 31, 356-366.

Boothroyd, A., Eisenberg, L., and Martinez, A. (2010). An imitative test of speech-pattern contrast perception (OlimSpac): developmental effects in normally hearing children. J Speech Lang Hear Res. 53, 531-542.

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Boothroyd, A. (2012). Speech perception in the classroom. Chapter 3 In: Handbook of acoustic accessibility. Smaldino, J.J & flexer, C. Eds. Thieme Medical Publishers Inc. New York.

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2015-2019

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Boothroyd, A. (1988). Hearing Impairments in Young Children. Washington, D.C.: A. G. Bell Association for the Deaf. (Previously published in 1982 by Prentice Hall, Englewood Cliffs, NJ.

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RESEARCH GRANTS

Quantitative methods for assessment of familiarity and context effects in speech recognition. PSC.CUNY. Award #6-63137. 1983-1984.

Quantitative methods for assessment of familiarity and context effects in speech recognition. PSC.CUNY. Award #6-64363. 1984-1985.

Development of New Generation Hearing Aids. (Co-PI with Harry Levitt). National Institute of Disability Research and Rehabilitation. Award #G008302511. 1983-1988.

Tactile Supplements to Lipreading. National Institutes of Health. Program Project Grant #PO1NS17764. 1984-1989.

Rehabilitation of Cochlear Implant Patients. National Institutes of Health. Program Project Grant #PO1NS17764. 1984-1989

Development of New Generation Hearing Aids. (Co-PI with Mark Weiss, and Arlene Newman-Sand). National Institute of Disability Research and Rehabilitation. 1988-1993.

Tactile Supplements to Lipreading. National Institutes of Health. PI within Program Project Grant #2PO1DC00178. 1989-1994.

Efficacy of Cochlear Implants. National Institutes of Health. PI within Program Project Grant #2PO1DC00178. 1989-1994.

Amplification for profound deafness, and hearing problems of the elderly. Co-Principal Investigator, Research and Rehabilitation Engineering Center grant. National Institute of Disability Research and Rehabilitation. 1993-1998.

Cochlear Implants in Children. National Institutes of Health. Principal Investigator within Clinical Research Center grant #2PO1DC00178 1995-2000.

Benefits and costs of remote and directional microphones as accessories to hearing aids for the Hard of Hearing and Late-deafened Adult. Co-Principal Investigator, Rehabilitation Engineering and Research Center (RERC) grant #H1343E9800 from NIDRR to Gallaudet University. (Center Director, Dr. Matthew Bakke). 1998-2003.

Assessing Auditory Capacity in Hearing-impaired Children. Co-Investigator. NIH/NIDCD grant R01-DC006238 to the House Ear Institute. (PI, Dr. Laurie Eisenberg). 2003 -2010. Total Direct Costs $1,125,000.

Self-fitting of amplification: efficacy and candidacy. Co-investigator on UCSD sub-award for development of equipment for self-fitting research (PI- Dr. Harinath Garudadri) on SDSU award (PI Dr. Carol MAckersie). NIH/NIDCD grants R21/33 DC015046.. 2016-2020.

Open-source speech-processing platform for hearing aid research: performance and usability. PI on an SDSU subcontract from UCSD, grant R01DC015436 (PI Dr. Harinath Garudadri). 2016-2021

PATENT AWARDED

Wearable tactile sensory aid providing information on voice pitch and intonation patterns. U.S. patent #4,581,491. 1986.

SOFTWARE

CASPA 5.0. (Computer-Assisted Speech Perception Assessment) – an auditory word repetition task to assess phoneme recognition in monosyllabic words as a function of signal level and presentation mode with automatic logging and graphing of results and the option for self-administration. Developed independently.

VidSpac 4.0 (VIDeo-game assessment of the perception of Speech Pattern Contrast perception. This test is designed for children. The child participates in a video game in which performance depends on the ability hear a phonemic change in a series of repeated utterances. Developed independently.

CASPER (Software battery for Computer-Assisted Speech PERception testing and training). This is a collection of three tests for assessing and enhancing auditory, visual, and auditory-visual speech perception at several linguistic levels, with the option for self-administration. Developed under NIDRR grant # H1343E98 to the Gallaudet University's Rehabilitation Engineering Research Center (Project director Dr. Matt Bakke).

1. **CasperCon 3.4**: Forced-choice phoneme identification task.
2. **CasperSent 3.4**: - an open-set sentence-repetition task with the option of presenting or withholding sentence topic before each sentence.
3. **AudioCasper 6.6**: - an auditory training program using short stories.

BATIT (Battery of Auditory Tests for Infants and Toddlers. This is a collection of tests for assessing auditory speech perception in young children. The auditory task and stimuli remain constant across the series but the response task changes according to the child's age and developmental status. Performance is assessed in terms of the probability that the child can hear various phonemic contrasts.

OlimSpac 4.0: (On-Line Imitative test of Speech Pattern Contrast perception). The accuracy of the child's imitation of syllables is evaluated by the tester in a forced-choice task.

V.I.P.Spac 4.8: a collection of three tests in which the child responds overtly to a phonemic change in a series of repeated utterances:

1. **VRASpac**: The response is a conditioned head turn, visually reinforced.
2. **PlaySpac**: The response is a play activity, socially reinforced.
3. **ButtonSpac**: The response is a button press on the part of the child, visually rewarded.

Developed under NIDCD grant # R01-DC006238 to the House Ear Institute (PI Dr. Laurie Eisenberg).

SOUND-FIELD TUTORIAL 1.5: Multimedia, interactive, introduction to factors affecting speech reception and perception in rooms. (Written under a consulting agreement with Phonic Ear/FrontRow inc.)

MODELING CLASSROOM ACOUSTICS 1.1: Simulation software to predict speech reception and perception at various locations in a classroom – with and without various types of sound-field amplification. (Written under a consulting agreement with Phonic Ear/FrontRow inc.)

GOLDILOCKS 3.3: Self-fitting of hearing aid output and spectrum (developed independently)

AUDIMOMETER 2.1: Self-assessment of pure-tone threshold (developed independently)

RECENT CLINICAL DOCTORAL RESEARCH PROJECTS SUPERVISED AT SDSU

1. Pegan, C. Interactive effects of noise and reverberation on speech perception. 2007.
2. Bigler, S. The effects of computer-based auditory training on speech perception by adults with hearing loss. 2012
3. Granalli, A. Auditory object completion and its role in noise-masked speech perception in normally-hearing adults. 2012.
4. Ruby, C. Towards a clinically viable measure of sentence context usage. 2015.
5. Schauer, A. Lowest acceptable speech-perception performance level. 2015.