

CURRICULUM VITA

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Peter F. Assmann, Ph.D.

School of Behavioral and Brain Sciences

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Educational history

Ph.D., 1985, Department of Linguistics, Speech Production and Perception. University of Alberta, Edmonton, Alberta, Canada. Dissertation: *The role of harmonics and formants in the perception of vowel quality*. Dissertation advisor: Dr. Terrance Nearey

M.Sc., 1979, Department of Linguistics, Speech Production and Perception. University of Alberta, Edmonton, Alberta, Canada, Speech Production and Perception.

B.A., 1976, Departments of Psychology and Philosophy, Psychology and Philosophy. University of Waterloo, Waterloo, Ontario, Canada.

Employment history

Professor, School of Behavioral and Brain Sciences, The University of Texas at Dallas, Richardson, Texas, from September 2003 to present.

Associate Professor, School of Human Development/Behavioral and Brain Sciences, The University of Texas at Dallas, Richardson, Texas, from September 1995 to 2003.

Assistant Professor, School of Human Development, The University of Texas at Dallas, Richardson, Texas, from January 1989 to 1995.

Speech and Hearing Scientist, Medical Research Council Institute of Hearing Research, University Park, Nottingham, England, 1985-1988. Division of Speech, Signal Processing, and Psychoacoustics.

Professional honors and awards

Elected Fellow of the Acoustical Society of America (2012).

Special Faculty Research Assignment. North Texas Phonetic Database. Fall, 2008.

Associate Editor for Speech Perception. Journal of the Acoustical Society of America (2002-2005)

Callier Excellence Scholar. 2001-2002.

Special Faculty Research Assignment. Multimedia program for speech perception. Spring, 2002.

National Institutes of Health Reviewer, SBIR Special Emphasis Panel, Biobehavioral and Social Sciences IRG, Washington, Nov. 4, 1998.

Professional memberships

Acoustical Society of America

International Phonetic Association

International Speech Communication Association (ISCA)

Speech Technical Committee, Acoustical Society of America 1993-1999; 2014-2015; ex officio: 2002-2005.

Representative for the North Texas Chapter of the Acoustical Society of America, 1999-present.

Technical Program Committee Representative for the 128th Acoustical Society Meeting, Dec. 1994.

Articles in refereed journals

- Sullivan J., Assmann P.F., Hossain S., and Schafer E. (in press). Voice gender and the segregation of competing talkers: Perceptual learning in cochlear implant simulations. *Journal of the Acoustical Society of America*.
- Hossain S., Montazeri V. and Assmann P.F. (2016). Musical instrument identification in simulated electric acoustic hearing and in cochlear implant users with contralateral hearing aids. *Psychomusicology: Music, Mind, and Brain*, Vol 26(3), Sep 2016, 270-278. doi: <http://dx.doi.org/10.1037/pmu0000157>
- Hossain S., Montazeri V., Assmann P.F. and Litovsky R.Y. (2015). Precedence-based speech segregation in bilateral cochlear implant users. *Journal of the Acoustical Society of America* 138, EL-545-550.
- Hubbard D. and Assmann P.F. (2013). Perceptual adaptation to gender and expressive properties in speech: The role of fundamental frequency. *J. Acoust. Soc. Am.* 133(4): 2367-2376.
- Bharadwaj S.V. and Assmann P.F. (2013). Vowel Production in Children with Cochlear Implants: Implications for Evaluating Disordered Speech. *The Volta Review* 113(2): 149-169.
- Sullivan, J., Thibodeau, L., and Assmann, P.F. (2013). Auditory training in interrupted noise improves speech recognition in noise for children with hearing impairment. *J. Acoust. Soc. Am.* 133(1): 495-501.
- Sullivan, J., Thibodeau, L., and Assmann, P.F. (2012). Performance-intensity function in interrupted and continuous noise for children with hearing impairment. *Journal of Educational Audiology* 18, 6-12.
- Assmann P.F., Nearey T.M. (2008). Identification of frequency-shifted vowels. *J. Acoust. Soc. Am.* 124(5): 3203-3212.
- Assmann P.F. and Nearey T.M. (2007). Relationship between fundamental and formant frequencies in voice preference. *Journal of the Acoustical Society of America* 122(2), EL35-EL43.
- Stickney G.S., Assmann P.F., Chang J., and Zeng F.-G. (2007). Effects of cochlear implant processing and fundamental frequency on the intelligibility of competing sentences. *Journal of the Acoustical Society of America* 122(2), 1069-1078.
- Bharadwaj S.V., Graves A.G., Bauer D.D. and Assmann P.F. (2007). Effects of auditory feedback deprivation length on the vowel /ε/ produced by pediatric cochlear-implant users. *Journal of the Acoustical Society of America* 121(5), EL196-EL202.
- Stickney G.S., Loizou P.C., Mishra L.N., Assmann P.F., Shannon R.V., Opie J.M. (2006). Effects of electrode design and configuration on channel interactions. *Hearing Research* 211(1-2): 33-45.
- Bharadwaj S.V., Tobey E.A., Assmann P.F. and Katz W.F. (2006). Effects of Auditory Feedback on Fricative Consonants Produced by Cochlear Implant Users: Acoustic and Perceptual Evidence. *Journal of the Acoustical Society of America* 119: 1626-1635.
- Assmann, P.F. and Katz, W.F. (2005). Synthesis fidelity and time-varying spectral change in vowels. *Journal of the Acoustical Society of America* 117(2), 886-895.
- Glidden, C.M. and Assmann, P.F. (2004). Effects of visual gender and frequency shifts on vowel category judgments. *Acoustics Research Letters Online* 5(4), 132-138.
- Stickney, G.S., Zeng, F-G., Litovsky, R., Assmann, P.F. (2004). Cochlear implant speech recognition with speech maskers. *Journal of the Acoustical Society of America*. 116(2), 1081-1091.
- Loizou, P.C., Stickney, G., Mishra, L., and Assmann, P.F. (2003). Comparison of speech processing strategies used in the Clarion speech processor. *Ear and Hearing*. 24(1): 12-19.
- Assmann, P.F., Nearey, T.M., and Scott, J.M. (2002). Modeling the perception of frequency-shifted vowels. *Proceedings of the 7th International Conference on Spoken Language Processing*, pp. 425-428.
- Stickney, G.S. and Assmann, P.F. (2001). Acoustic and linguistic factors in the perception of bandpass-filtered speech. *Journal of the Acoustical Society of America* 109(3): 1157-1165.

- Katz, W.F. and Assmann, P.F. (2001). Identification of children's vowels: Intrinsic fundamental frequency, fundamental frequency dynamics, and presence of voicing. *Journal of Phonetics*, 29: 23-51.
- Assmann, P.F. and Katz, W.F. (2000). Time-varying spectral change in the vowels of children and adults. *Journal of the Acoustical Society of America* 108(4): 1856-1866.
- Assmann, P. F. and Paschall, D. D. (1998). Pitches of concurrent vowels. *Journal of the Acoustical Society of America* 103: 1150-1160.
- Assmann, P. F. (1996). Modeling the perception of concurrent vowels: Role of formant transitions. *Journal of the Acoustical Society of America* 100: 1141-1152.
- Assmann, P.F. (1995). The role of formant transitions in the perception of concurrent vowels. *Journal of the Acoustical Society of America* 97, 575-584.
- Assmann, P. F. and Summerfield, Q. (1994). The contribution of waveform interactions to the perception of concurrent vowels. *Journal of the Acoustical Society of America* 95, 471-484.
- Assmann, P., Ballard, W., Bornstein, L., & Paschall, D. (1994). Track-Draw: A graphical interface for controlling the parameters of a speech synthesizer. *Behavior Research Methods, Instruments and Computers* 26, 431-436.
- Assmann, P. F. (1991). The perception of back vowels: Center of gravity hypothesis. *Quarterly Journal of Experimental Psychology* 43A (3): 423-448.
- Summerfield, A.Q. and Assmann, P.F. (1991). Perception of concurrent vowels: Effects of harmonic misalignment and pitch-period asynchrony. *Journal of the Acoustical Society of America* 89: 1369-1377.
- Assmann, P. F. and Summerfield, A. Q. (1990). Modeling the perception of concurrent vowels: Vowels with different fundamental frequencies. *Journal of the Acoustical Society of America* 88: 680-697.
- Assmann, P. F. and Summerfield, A. Q. (1989). Modeling the perception of concurrent vowels: Vowels with the same fundamental frequency. *Journal of the Acoustical Society of America* 85: 327-338.
- Summerfield, A. Q. and Assmann, P. F. (1989). Auditory enhancement and the perception of concurrent vowels. *Perception and Psychophysics* 45: 529-536.
- Assmann, P. F. and Nearey, T. M. (1987). Perception of front vowels: The role of harmonics in the first formant region. *Journal of the Acoustical Society of America* 81: 520-534.
- Nearey, T. M. and Assmann, P. F. (1986). Modeling the role of inherent spectral change in vowel identification. *Journal of the Acoustical Society of America* 80: 1297-1308.
- Assmann, P.F., Nearey, T.M., and Hogan, J.T. (1982). Vowel identification: Orthographic, perceptual and acoustic aspects. *Journal of the Acoustical Society of America* 71: 975-989.

Edited books, book chapters and conference proceedings

- Kapolowicz, M.R., Montazeri, V., Assmann, P.F. (2016) The Role of Spectral Resolution in Foreign-Accented Speech Perception. *Proc. Interspeech 2016*, 3289-3293. doi: 10.21437/Interspeech.2016-1585.
- Montazeri, V., Hossain, S., Assmann, P.F. (2016) Effects of Cochlear Hearing Loss on the Benefits of Ideal Binary Masking. *Proc. Interspeech 2016*, 3334-3338. DOI: 10.21437/Interspeech.2016-1555.
- Assmann P.F., Barreda S and Nearey T.M. (2013). Perception of speaker age in children's voices. *Proceedings of Meetings on Acoustics (POMA)* 19, 060059 (2013), DOI:10.1121/1.4800918.
- Hubbard D., Kiefe M., Hossain S., and Assmann P.F (2013). A developmental study of vowels spoken in syllables and in sentence context. *Proceedings of Meetings on Acoustics (POMA)* 19, 060070 (2013), DOI:10.1121/1.4799483.

- Assmann P.F., Barreda S and Nearey T.M. (2013). Perception of speaker age in children's voices. ASA Lay Language Papers, *165th Acoustical Society of America Meeting. Popular version of paper 2aSC15*: http://www.acoustics.org/press/165th/2aSC15_Assman.html
- Morrison, G.S., & Assmann, P.F. (Eds.) (2013). *Vowel inherent spectral change*. Heidelberg, Germany: Springer-Verlag. ISBN: 978-3-642-14208-6 (print) / 978-3-642-14209-3 (online). doi:10.1007/978-3-642-14209-3.
- Assmann, P.F., Nearey, T.M. and Bharadwaj, S.V. (2013). Developmental patterns in children's speech: Time-varying spectral change in vowels. In Morrison, G.S., & Assmann, P.F. (Eds.) *Vowel inherent spectral change*. (Springer-Verlag, Heidelberg), pp. 199-230.
- Hossain S. & Assmann P.F. (2013). Music masking speech in hybrid cochlear implant simulations. *Proceedings of Meetings on Acoustics (POMA)*. In press.
- Assmann P.F. & Nearey T.M. (2012). Perception of speaker age in children's voices. *Canadian Acoustics* 40(3), 10-11.
- M. Kieffe, T.N. Nearey and P.F. Assmann (2012). Vowel perception in normal speakers. To appear in *Handbook of Vowels and Vowel Disorders*. Martin J. Ball and Fiona Gibbon (Eds.) (Psychology Press, London). *Handbook of Vowels and Vowel Disorders*, pp. 160-185.
- Hossain, S. and Assmann P.F. (2012). Musical Instrument Recognition in Combined Electric and Acoustic Cochlear Implant Simulations. *Proceedings of the Audio Engineering Society, 47th International Conference: Music Induced Hearing Disorders*, Chicago, Illinois, 2012 June 20-22.
- Assmann, P.F., Nearey T.M. & Bharadwaj, S. (2008). Analysis and classification of a vowel database. *Canadian Acoustics* 36(3), 148-149.
- Sullivan, J. & Assmann P.F. (2008). Contribution of voice gender to speech masking in cochlear implant simulations. 29th International Congress of Audiology, Hong Kong (ICA 2008).
- Nearey T.M. and Assmann P.F. (2007). Probabilistic 'sliding template' models for indirect vowel normalization. *Experimental Approaches to Phonology*, eds. M. J. Solé, P. S. Beddor, and M. Ohala. Oxford University Press, pp 246-269.
- Assmann P.F., Dembling S., and Nearey T.M. (2006). Effects of frequency shifts on perceived naturalness and gender information in speech. *Proceedings of the Ninth International Conference on Spoken Language Processing*, pp. 889-892, Pittsburgh, PA, September 17-21, 2006.
- Summerfield, A.Q., Culling, J. and Assmann, P.F. (2005). The perception of speech under adverse conditions: contributions of spectro-temporal peaks, periodicity, and inter-aural timing to perceptual robustness. In: *Listening to Speech: An Auditory Perspective*. eds. Steven Greenberg and William Ainsworth. (Erlbaum).
- Assmann, P. F. and Summerfield, A. Q. (2004). The perception of speech under adverse conditions. S. Greenberg, W.A. Ainsworth, A.N. Popper and R.R. Fay (Eds.) *Speech Processing in the Auditory System*. Volume 14, pp. 231-308, Springer Handbook of Auditory Research.
- Assmann, P.F. and Nearey, T.M. (2003). A review of results on frequency shifts and vowel identification. *Canadian Acoustics* 31.
- Assmann, P.F. and Nearey, T.M., (2003). Frequency shifts and vowel identification. *Proceedings of the 15th International Congress of Phonetic Sciences*, pp. 1397-1400, Barcelona, Spain.
- Assmann, P. and Katz, W.F. (2001). Synthesis fidelity and vowel perception. *Lay Language Papers from the 142nd Meeting of the Acoustical Society of America*. Fort Lauderdale, FL, Dec 3-7, 2001. (Invited paper). Web address: <http://www.acoustics.org/press/142nd/Assmann.html>

Assmann, P.F. (1999). Fundamental frequency and the intelligibility of competing voices. *Proceedings of the 14th International Congress of Phonetic Sciences*, pp. 179-182.

Paschall, D.D. and Assmann, P.F. (1998). Ranking the pitches of concurrent vowels. *Proceedings of the 16th International Congress on Acoustics and the 135th Meeting of the ASA*, vol. 3, pp. 2009-2010.

Summerfield, A.Q., Culling, J.F., and Assmann, P.F. The perception of speech under adverse conditions: Contributions of spectro-temporal peaks, periodicity, and inter-aural timing to perceptual robustness. *Proceedings of the E.S.C.A. Workshop on the Auditory Basis of Speech Perception*, Keele University (U.K.), July 18, 1996.

Co-editor with Carl Crandell of the special issue of Ear and Hearing, Dec. 1991, *Proceedings of the 1991 Bruton Conference on Speech Perception in the Hearing Impaired: Implications for Hearing Aid Technology*, May 10-11, 1991, Callier Center for Communication Disorders.

Assmann, P.F. and Summerfield, A.Q. (1988). Pitch-pulse asynchrony and the perception of simultaneous voices. *Proceedings of the Seventh FASE Symposium*, Vol. II, pp. 531-538.

Summerfield, A.Q. and Assmann, P.F. (1987). Auditory enhancement and speech perception. In *Proceedings of the NATO Advanced Research Workshop: The Psychophysics of Speech Perception*. Edited by M.E.H. Schouten. (Martinus Nijhoff, Dordrecht), pp. 140-150.

Assmann, P.F. and Summerfield, A.Q. (1986). Modeling the perception of concurrent vowels. *Proceedings Institute of Acoustics, Autumn Conference on Speech and Hearing*, Vol. 8, Part 7, pp. 53-60.

Presentations and abstracts

Assmann, P.F. (2016). Unusual public voices. *Journal of the Acoustical Society of America* 140, 3163 (2016); <http://doi.org/10.1121/1.4969928>. Invited talk for the special session, *Speech Communication: Double-Weak Theory of Speech Production and Perception: A Session in Honor of Terrance Nearey*.

Kapolowicz M.R., Montazeri V., Kuang J.F., Assmann P.F. (2016). Adaptation to foreign-accented speech with decreased spectral resolution. *Journal of the Acoustical Society of America* 140, 3339 (2016); <http://doi.org/10.1121/1.4970657>.

Hossain, S., Montazeri V., Assmann P.F. (2016). Ideal binary masking based noise reduction and interleaved processing for bilateral cochlear implant users. *Journal of the Acoustical Society of America* 140, 3441 (2016); <http://doi.org/10.1121/1.4971094>.

Montazeri V., Hossain, S., Assmann P.F. (2016). Ideal binary masking and the integration of spectro-temporal glimpses in cochlear implant simulations. *Journal of the Acoustical Society of America* 140, 3446 (2016); <http://doi.org/10.1121/1.4971121>.

Guest D.R., Kapolowicz M.R., Hossain S., Montazeri V., Assmann P.F. (2016). Perception of voice gender in cochlear implant simulations of children's speech. *Journal of the Acoustical Society of America* 139, 2124 (2016); <http://doi.org/10.1121/1.4950328>.

Peskova O., Assmann P.F., Geers A.E., Tobey E.A. (2016). Association between speech perception and speech production performance in pediatric cochlear implant users. *14th International Conference on Cochlear Implants (CI2016)*, May 12-13.

Bharadwaj S., Assmann P.F., and Daniel L.L. (2016). Speech Production Development Before and After Auditory Brainstem Implantation: A Case Study. *14th International Conference on Cochlear Implants (CI2016)*, May 12-13.

Fitzharris K., Assmann P.F., Hossain S. (2016). Effect of Number of Talkers on Listening Effort. *AudiologyNOW! 2016*, April 13–16, Phoenix, AZ.

- Assmann P.F., Kopolowicz M.R., Massey D.A., Barreda S. and Nearey T.M. (2015). Links between the perception of speaker age and sex in children's voices. *Journal of the Acoustical Society of America*, 138, 1811 (A). <http://dx.doi.org/10.1121/1.4933751>.
- Hubbard D.J., Faso D.J., Sasson N.J. and Assmann P.F. (2015). Affective prosody production in autistic and typically developed adult males. *Journal of the Acoustical Society of America* 137, 2431 (2015); <http://dx.doi.org/10.1121/1.4920868>.
- Assmann P.F., Kopolowicz M.R., Massey D.A., Barreda S. & Nearey T.M. (2014). Perception of speaker sex in re-synthesized children's voices. *Journal of the Acoustical Society of America*, 135, 2424 (A).
- Hossain S., Montazeri V., Assmann P.F., Tobey E., Litovsky R.Y. (2014). Precedence-based speech segregation in bilateral cochlear implant users. *Abstracts of the 2014 Midwinter Meeting of the Association for Research in Otolaryngology* 37, 440.
- Peskova O., Montazeri V., Assmann P.F., & Tobey E.A. (2014). *Speech Intelligibility, Sentence Duration and Timing Errors in Pediatric Cochlear Implant Users*. Poster presentation at the *13th International Conference on Cochlear Implants and Other Implantable Auditory Technologies*.
- Assmann P.F., Barreda S. and Nearey T.M. (2013). Modeling the perception of speaker age and sex in children's voices. *Journal of the Acoustical Society of America*, 134, 4237 (A).
- Assmann P.F., Barreda S. and Nearey, T.M., (2013). Perception of speaker age in children's voices. *Journal of the Acoustical Society of America*, 133, 3335 (A).
- Hubbard D., Kiefe M., Hossain S., and Assmann P.F (2013). A developmental study of vowels spoken in syllables and in sentence context. *Journal of the Acoustical Society of America*, 133, 3337 (A).
- Hubbard, D.J. and Assmann, P.F. (2012). Cues for the perception of expressive speech. *Journal of the Acoustical Society of America* 132, 2079 (A).
- Assmann P.F. and Nearey T.M. (2011). Perception of speaker sex in children's voices. *J. Acoust. Soc. Am.* 130, 2446 (A).
- Sullivan J.S., Thibodeau L.M. and Assmann P.F. (2011). *Computer-Based Auditory Training to Improve Speech Recognition in Noise by Children with Hearing Impairment*. Abstracts of the 34th Annual Midwinter Research Meeting of the Association for Research in Otolaryngology Vol. 34, p. 76.
- Hubbard, D.J. and Assmann P.F. (2011). *Fundamental frequency and perceptual adaptation to gender and emotion*. *J. Acoust. Soc. Am.* 130, 2446 (A).
- Hossain S. and Assmann P.F. (2011). *Music masking speech in cochlear implant simulations*. *J. Acoust. Soc. Am.* 130, 2448 (A).
- Sullivan J.S., Assmann P.F. and Hossain S. (2011). *Benefits of voice gender and perceptual learning on the perception of masked speech processed through cochlear implant simulations*. *J. Acoust. Soc. Am.* 129, 2661 (A).
- Assmann P.F., Nearey T.M. (2010). *Pattern classification studies of vowel-inherent spectral change in adults and children*. *Journal of the Acoustical Society of America* 125: 2696; poster presentation at the 2nd Pan-American/Iberian Meeting on Acoustics, Cancun, Mexico 15-19 November, 2010.
- Assmann P.F., Nearey T.M. and Keife, M. (2010). *Vowel-inherent spectral change in isolated vowels and consonant-vowel-consonants*. *Journal of the Acoustical Society of America* 127: 2019.
- Session Chair in Speech Communication (with Geoff Morrison): *Vowel Inherent Spectral Change*. Sessions 4aSCa / 4aSCb, 157th Meeting of the Acoustical Society of America, Portland, May 21, 2009.
- Assmann P.F., Nearey T.M. and Bharadwaj, S.V. (2009). Developmental study of vowel-inherent spectral change. *Journal of the Acoustical Society of America* 125: 2696.

- Assmann P.F., Nearey T.M., Bharadwaj S.V., Hubbard D., and Jayaraman A. (2008). Developmental study of the relationship between F0 and formant frequencies. *Journal of the Acoustical Society of America* 124, 2556 (A).
- Sullivan J. & Assmann P.F. (2008). Contribution of voice gender to speech masking in cochlear implant simulations. *129th International Congress of Audiology*, Hong Kong, June 8-12, 2008 (ICA 2008).
- Assmann P.F., *Analysis of a vowel database*. Invited lecture, Department of Linguistics, University of Toronto, Oct 27, 2008.
- Assmann P.F. and Nearey T.M. (2007). Effects of frequency shifts on the identification of vowels and words in sentences. *Journal of the Acoustical Society of America* 122 (2007) p. 3064(A).
- Nearey T.M. and Assmann P.F. (2007). Modeling the effects of frequency shifts on vowel identification. *Journal of the Acoustical Society of America* 121(5), p. 3136.
- Assmann P.F., Nearey T.M., and Chen D. (2006). Matching fundamental and formant frequencies in vowels. *Journal of the Acoustical Society of America* 120, p. 3248.
- Nearey T.M. and Assmann P.F. (2006). Information conveyed by f0 for vowel identification. *Journal of the Acoustical Society of America* 119, p. 3339.
- Assmann P.F. and Nearey T.M. (2005). Relationship between fundamental and formant frequencies in speech perception. Invited talk for the special session: "Size information in speech and animal calls", 149th Meeting of the Acoustical Society of America. Vancouver, May 16-20, 2005. *J. Acoust. Soc. Am.* 117, 2374.
- Assmann, P.F., Glidden, C.M., and Nearey, T.M. (2004). Effects of context and frequency shifts in vowel identification. *Journal of the Acoustical Society of America* 116(4), p. 2571.
- Stickney, G.S., Chang, J., Assmann, P.F., Zeng, F-G. (2004). Fundamental frequency and the intelligibility of competing sentences with cochlear implant processing. *Journal of the Acoustical Society of America* 116(4), p. 2523.
- Glidden, CM. and Assmann, PF. (2003). Effects of frequency shifts and visual gender on vowel identification. *Journal of the Acoustical Society of America* 114: 2ASC11.
- Stickney, G.S., Zeng, F-G., Litovsky, R.Y., & Assmann, P.F. (2002). Cochlear implant speech recognition with speech maskers. *Abstracts of the 25th Midwinter Meeting of the Association for Research in Otolaryngology*, p. 123.
- Bharadwaj, S.V., Tobey, E.A., Assmann, P.F. and Katz, W.F. (2002). Role of auditory feedback in speech produced by cochlear implanted adults and children. *Journal of the Acoustical Society of America* 111(5): 2428.
- Assmann, P.F., Nearey, T.M., and Scott, J.M. (2002). Modeling the perception of frequency-shifted vowels. Invited paper presentation for Special Session #8, Auditory Models and Hearing Aids, at the 7th International Conference on Spoken Language Processing, Denver, CO, Sept 17, 2002.
- Assmann, P.F. (2002). Perception of speech under adverse listening conditions. Invited talk, Department of Linguistics, University of Alberta, April 26, 2002.
- Glidden, C. and Assmann, P.F. (2002). Perceptual adaptation to frequency-shifted speech. *Journal of the Acoustical Society of America* 112: 2249.
- Katz, W.F., Bharadwaj, S.V., Stettler, M.P., and Assmann, P.F. (2002). Fricative spectral moments and the perception of anticipatory coarticulation. *Journal of the Acoustical Society of America* 112: 2355.
- Nearey, T.M., Assmann, P.F. and Hillenbrand, J.M. (2002). Evaluation of a strategy for automatic formant tracking. *Journal of the Acoustical Society of America* 112: 2323.

- Assmann, P.F. and Loizou, P.C. (2001). Hot Topics in Speech Communication. *Journal of the Acoustical Society of America* 110(5): p.2715. Invited lecture presentation at the 141st Meeting of the Acoustical Society of America, Ft. Lauderdale, Florida, Dec 5, 2001.
- Assmann, P.F. and Katz, W.F. (2001). Effects of synthesis fidelity on vowel identification: Role of spectral change and voicing source. *Journal of the Acoustical Society of America* 110(5): p. 2658 (A).
- Scott, J.M., Assmann, P.F., and Nearey, T.M. (2001). Intelligibility of frequency-shifted speech. *Journal of the Acoustical Society of America* 109(5): p. 2316 (A).
- Stickney, G.S., Loizou, P.C., Assmann, P.F., Shannon, R.V., and Opie, J.M. (2001). Electrode interaction and speech intelligibility in multichannel cochlear implants. *Proceedings of the 2001 ASILOMAR Conference on Implantable Auditory Prostheses*, Pacific Grove, CA, Aug 19-24, 2001.
- Stickney, G.S., Loizou, P.C., Mishra, L.N., Assmann, P.F., Shannon, R., Opie, J. (2000). Channel interaction and speech processing strategies for cochlear implants. *Journal of the Acoustical Society of America* 108: 4aSCa4, p. 2601.
- Bharadwaj, S.V. and Assmann, P.F. (2000). Effects of time reversal on consonant identification. *Journal of the Acoustical Society of America* 108: 4aSCa22, p. 2604.
- Stickney, G., Shannon, R., Opie, J. & Assmann, P.F. (2000). Electrode interaction in multichannel cochlear implants with different electrode designs and positions. *Abstracts of the 23rd Annual MidWinter Meeting of the Association for Research in Otolaryngology*.
- Session chair for Clinical Phonetics: Infants and Children for the 14th International Congress of Phonetic Sciences, San Francisco, CA, August 1-8, 1999.
- Assmann, P.F. (1999). Vocal tract size and the intelligibility of competing voices. *Journal of the Acoustical Society of America* 106: 4pSC9.
- Assmann, P.F. (1999). Fundamental frequency and the intelligibility of competing sentences. *Abstracts of the 22nd Midwinter Meeting of the Association for Research in Otolaryngology*, pp. 73-74.
- Paschall, D.D. and Assmann, P.F. (1998). Ranking the pitches of concurrent vowels. *Journal of the Acoustical Society of America* 103, Suppl. 2, 4aSC6, p. 2980.
- Stickney, G.S. and Assmann, P.F. (1998). Masking of filtered speech by a single competing voice. *Abstracts of the 21st Midwinter Meeting of the Association for Research in Otolaryngology*, p. 43.
- Stickney, G.S. and Assmann, P.F. (1997). Intelligibility of bandpass-filtered speech. *Journal of the Acoustical Society of America* 100, Suppl. 2, 3aPP1, p. 2680.
- Assmann, P. F. (1996). Tracking and glimpsing speech in noise: Role of fundamental frequency. Invited lecture presentation with audio demonstrations for the special session on *Auditory Organization and Representation, Third Joint Meeting of the Acoustical Society of Japan and the Acoustical Society of America*, Honolulu, Dec. 2-6, 1996. *Journal of the Acoustical Society of America* 100, Suppl. 2, 3aPP1, p. 2680. Web: <http://www.utdallas.edu/~assmann/asa96/talk.html>
- Session chair and moderator for the session on Speech Processing under Adverse Acoustic Conditions, E.S.C.A. Workshop on the Auditory Basis of Speech Perception, Keele University (U.K.), 15-19 July, 1996.
- Modeling the perception of speech in the presence of interfering sounds. Invited lecture presented to the Texas Instruments Speech Research Group, Dallas, April 19, 1996.
- Organizer and session co-chair (with Randy Diehl) for the special session on Current Directions in Vowel Perception Research, 130th Meeting of the Acoustical Society of America, St. Louis, Nov. 30, 1995.

- Assmann, P.F., Katz, W.F., Jenouri, K.M. & Hamilton, P.R. (1995). Identification of natural and synthesized vowels produced by children and adults: Effects of formant frequency variation. *Journal of the Acoustical Society of America* 98, Suppl. 2, 4pSC3, p. 2964.
- Katz, W.F., Assmann, P.F., & Jenouri, K.M. (1995). Identification of natural and synthesized vowels produced by children and adults: Effects of fundamental frequency variation. *Journal of the Acoustical Society of America* 98, Suppl. 2, 4pSC2, p. 2964.
- Assmann, P.F. (1993). Waveform dynamics and the perceptual segregation of concurrent vowels. *Journal of the Acoustical Society of America* 97, Suppl. 2, 5pSC22, pp. 3419-3420.
- Assmann, P.F., Bornstein, L., & Paschall, D.D. (1994). A graphical technique for manipulating the parameters of a speech synthesizer. *Abstracts of the Seventeenth Midwinter Meeting of the Association for Research in Otolaryngology*, p. 148.
- Organizer and session chair for the special session on Production and perception of speech by children, 127th Meeting of the Acoustical Society of America, Austin, Dec 1, 1994.
- Assmann, P.F. and Paschall, D.D. (1994). Pitches of concurrent vowels. *Journal of the Acoustical Society of America* 95, 4pPP16 (A).
- Speech perception in the presence of competing sounds, invited presentation for the 25th Anniversary Reunion and Conference of the Department of Linguistics, University of Alberta, Edmonton, Canada, Oct. 28-30, 1994.
- Assmann, P.F. and Paschall, D. D. (1993). Perception of concurrent vowels: Pitch Judgments. *Abstracts of the Sixteenth Midwinter Research Meeting of the Association for Research in Otolaryngology*, p. 258.
- Assmann, P.F. (1993). Formant transitions and the identification of concurrent vowels. *Journal of the Acoustical Society of America* 93, Suppl. 2, 5pSP3, p. 2422.
- Paschall, D.D. and Assmann, P.F. (1993). Modeling vowel identification by listeners: A comparison of cepstrum-based and auditory models at reduced signal-to-noise ratios. *Journal of the Acoustical Society of America* 93, Suppl. 2, 3pSP3, p. 2353.
- Assmann, P.F. and Paschall, D.D. (1992). Autocorrelogram models of the segregation of competing voices. *Abstracts of the 15th Midwinter Meeting of the Association for Research in Otolaryngology*, p.28.
- Computational models of the perception of competing voices, Invited lecture and videotape presentation for the session on Computational Models in Hearing, Annual Convention of the American Speech and Hearing Association, San Antonio, Nov. 21, 1992.
- Session chair for the session on Cross-language and vowel studies, 122nd Meeting of the Acoustical Society of America, Houston, Nov. 5, 1991.
- Hayes, S., Golden, R., & Assmann, P.F. (1991). Categorization of CVC syllables at varying speaking rates. *Journal of the Acoustical Society of America* 90: Suppl. 2, 3SP3 (A).
- Assmann, P.F. and Summerfield, A.Q. (1990). Pitch, vowel quality, and the perceptual segregation of competing voices. *Journal of the Acoustical Society of America* 88: Suppl. 1, S23 (A). Invited presentation for the special session on the Auditory Representation of Speech, 120th Meeting of the Acoustical Society of America, San Diego, 27 Nov. 1990.
- Summerfield, A.Q. and Assmann, P.F. (1990). "Place" and "Place-Time" models of the use of fundamental-frequency differences for speech-source segregation. *Abstracts of the 13th Midwinter Research Meeting of the Association for Research in Otolaryngology*, p.182-183 (A).
- Auditory models for the perception of simultaneous voices. Invited lecture presented to the Department of Psychology, The University of Texas at Austin, Jan 11, 1990.

The perceptual segregation of competing voices / Auditory models of the perception of competing voices. Invited lectures presented to the Dept. of Communicative Disorders, Faculty of Applied Health Sciences, Elborn College, The University of Western Ontario, London, Ontario, Canada, Dec 11-12, 1989.

Place and Place-Time models of pitch perception and voice segregation. (With Quentin Summerfield). Invited lecture presented to the Hearing Research Group, Experimental Psychology Dept, Cambridge University, England, Aug. 1988.

Modeling the perceptual segregation of competing voices. (With Quentin Summerfield). Poster presented at the Second Franco-British Meeting on Speech, Brighton, Sussex, July 5, 1988.

Auditory models for the perception of simultaneous speech sounds. Invited talk presented to the Speech Communication Group, Massachusetts Institute of Technology, November 23, 1987.

Assmann, P.F. and Summerfield, A.Q. (1987). Perceptual segregation of concurrent vowels. *Journal of the Acoustical Society of America* 82: Suppl. 1, CCC8 (A).

Assmann, P.F. (1984). Spectral peaks and the perception of back vowels. *Journal of the Acoustical Society of America* 76: Suppl. 1, KK9 (A).

Nearey, T.M. and Assmann, P.F. (1984). Listeners' identification of brief windowed segments of natural isolated vowels. *Journal of the Acoustical Society of America* 76: Suppl. 1, KK1 (A).

Assmann, P.F. and Nearey, T.M. (1983). Perception of height differences in vowels. *Journal of the Acoustical Society of America* 74: Suppl. 1, SS7 (A).

Work in progress

Montazeri V., Hossain, S., Assmann P.F. (under review). Predicting speech reception thresholds of cochlear implant users using a modified envelope based measure. *Speech Communication*.

Katz W.F. and Assmann P.F. (editors; scheduled publication date: Jan 2018). *The Routledge Handbook of Phonetics*. To be published by Taylor & Francis/Routledge.

Hubbard D.J., Faso D.J., Sasson N.J., Assmann P.F. (2017). Communication of affective prosody produced by adults with Autism Spectrum Disorder. To be submitted to *Autism Research*.

External funding for original investigations

National Science Foundation Grant (2011-2017). *Acoustic variability and perception of children's speech*. Principal Investigator: Peter Assmann. \$283,023 from 09/01/11 - 03/30/17. (16.6% annual effort).

UTD Graduate Dean Dissertation Research Award to Shaikat Hossain. *Spatial hearing and speech perception*. (Faculty advisor). \$600.

UTD BBS PhD Research Small Grants award to Daniel Hubbard. *Production and perception of affective prosody by adults with autism spectrum disorder*. (Faculty advisor). \$500.

UTD Undergraduate Research Scholar Award to Daniel Guest. (Faculty advisor). *Perception of voice gender in children's speech by cochlear implant users*. (\$800; 11/14/2016 to 05/17/2017).

UTD Undergraduate Research Scholar Award to Daniel Guest. (Faculty advisor). *Perception of gender in children's speech in cochlear implant simulations*. (\$800; 10/10/14 to 08/15/15).

2015 Duane and Linda Buhrmester Undergraduate Research Award to Daniel Guest. (Faculty advisor) *Perception of age and gender in children's speech in cochlear implant simulations*. (\$500; 5/20/14 to 08/15/15).

UTD Undergraduate Research Scholar Award to David Massey. (Faculty advisor). *Emotion Recognition Using a Simulation of Cochlear Implant / Hearing Aid*. (\$800; 10/10/13 to 08/15/14).

Brain and Behavioral Sciences Faculty Research Initiative. *Speech perception in unilateral and bilateral cochlear implant users*. (\$1,500; 09/24/14 to 08/15/15).

Brain and Behavioral Sciences Faculty Research Initiative. *Spatial hearing in bilateral cochlear implant users: the precedence effect and its relationship to speech perception*. (\$1,500; 09/26/13 to 08/15/14).

Brain and Behavioral Sciences Faculty Research Initiative. *Voice gender, age and vowel quality in children's speech*. \$2,500 from 09/25/09 to 08/31/10. (2% annual effort).

Brain and Behavioral Sciences Faculty Research Initiative. *Vowel inherent spectral change*. \$2,500 from 08/01/08 to 08/01/09.

Faculty co-sponsor for Jessica Sullivan, National Institutes of Health F31 Predoctoral Fellowship Award. *Auditory training in continuous and interrupted noise*. (Kirschstein National Research Service Award for doctoral-level training).

Brain and Behavioral Sciences Faculty Research Initiative. *Voice transformation and non-uniform scaling*. \$2,500 from 09/01/08 to 08/01/09.

National Science Foundation Grant. *Perception of frequency-shifted speech*. \$223,418 over 3-year project period from 08/01/03 to 07/30/06.

Brain and Behavioral Sciences Faculty Research Initiative. *Long-term adaptation to frequency-shifted speech*. \$2,500 from 09/01/07 to 08/01/08.

Brain and Behavioral Sciences Faculty Research Initiative. *Long-term adaptation to frequency-shifted speech*. \$2,000 from 09/01/06 to 08/01/07.

Brain and Behavioral Sciences Faculty Research Initiative. *Speech recordings database*. \$2,000 from 09/01/05-08/01/06.

National Institutes of Health / National Institute on Deafness and Other Communication Disorders FIRST Independent Research Support And Transition Award #HAR 1 R29 DC01258-0 1, *Perception of Speech in the Presence of Competing Voices*, \$473,473 over 5-year project period from 07/91 to 06/96.

National Organization for Hearing Research Grant. *Neural Response Telemetry for Fitting and Evaluating Cochlear Implants*. \$10,000 over one-year project period, beginning 1-21-00. PI: Linda Thibodeau, Co-PI: Peter Assmann.

Texas Advanced Research Program Grant #11423-590, Awarded by the Texas Higher Education Coordinating Board, "*Acoustic, kinematic and perceptual studies of children's speech*", \$125,408 over 2-year project period from 01-01-94 to 12-31-95. Co-investigator with William Katz.

Social Sciences and Humanities Research Council of Canada. *A pattern recognition approach to phonetic and phonological effects in speech perception*. (#410-01353). 2000-2003. PI: Terrance Nearey; Collaborator: Peter Assmann.

ALCATEL research grant (doctoral student fellowship for Ginger Stickney). *Speech perception under adverse listening conditions*. \$25,000 from 09/99 to 08/00.

Texas Instruments Research Initiative, "*Development of a Language-based Computer Interface for Preschoolers*." Consultant (with L. Cauller, E. Dromi, R. Golden, N. Grannott, V. Marchman, A. O'Toole, M. Spence; W. Katz, PI and P. Rollins, Co-PI). \$50,000 over 1-year project period from 11/1/96 to 11/1/97.

Texas Instruments Research Initiative. "*Natural Language as an Approach to Software Generation*." Consultant (with R. Golden, L. Cauller, N. Grannott, P. Rollins, and E. Dromi; W. Katz and A. O'Toole, Principal Investigators). \$25,000 over 1-year project period from 9/1/95 to 5/31/96.

Callier Excellence in Education Grant. *Modeling the perception of speech under adverse listening conditions*. (#21-02). \$12,500 from Sept 1/01 to Aug 31/02.

Human Development Faculty Research Initiative. *Perceptual adaptations to frequency-shifted speech*. \$1,500 from 09/02-08/03.

Human Development Faculty Research Initiative. *Perception of time-varying spectral cues in speech*. \$1,500 from 09/00 to 08/01.

Human Development Faculty Research Initiative. *Representation of formant peaks in the auditory analysis of speech*. \$1,500 from 09/98 to 08/99.

UTD PUF award. (with R. Golden). *Upgrade for the Human Development Computational Systems laboratories: Sun Unix workstation network*. \$44,000 (12/98-12/99).

Teaching activity

Doctoral advisement

Daniel Hubbard (dissertation supervisor).

Shaikat Hossain (dissertation supervisor).

Michelle Kapolowicz (doctoral research supervisor).

Vahid Montazeri (doctoral research supervisor).

Olga Peskova (doctoral research supervisor).

Sonya Mehta (dissertation committee member).

Hussnain Ali (Graduated 2015; dissertation committee member).

Hua Xing (dissertation committee member).

Jaewook Lee (dissertation committee member).

Dongmei Wang (dissertation committee member).

Madhu Sundarrajan (dissertation committee member).

Tracy Rosen (Centanni) (Graduated 2013; dissertation committee member).

Shannon Layman (Graduated 2012; dissertation committee member).

Oldooz Hazrati (Graduated 2012; dissertation committee member).

Jack Birchfield (Graduated 2012; dissertation committee member).

Jai Shetake (Graduated 2012; dissertation committee member).

Mary Kathryn Reagor (Graduated 2012; dissertation committee member).

Kamalini Ramasinghe (Graduated 2011; dissertation committee member).

Jessica Sullivan (Graduated 2010; co-sponsor for National Institutes of Health F31 award; dissertation committee member).

June Levitt (Graduated 2009; dissertation committee member).

Kristin Atchison (Graduated 2009; dissertation committee member).

Nitish Murthy (Graduated 2009; dissertation committee member).

Michiko Yoshida (Graduated 2007; dissertation committee member).

Dana Roark (Graduated 2008; dissertation committee member).

Fang Jiang (Graduated 2008; dissertation committee member).

Crystal Engineer (Graduated 2008; dissertation committee member).

Shahram Ghiasinejad (Graduated 2007; dissertation committee member).

Jack Scott (Graduated 2007; dissertation committee member).

Gretchen Gabbert (Graduated 2006; dissertation committee member).

Pritesh Pandya (Graduated 2006; dissertation committee member).

Erin Schafer (Graduated 2006; dissertation committee member).

Catherine Glidden (Doctoral research project supervision).

Masters advisement

Mahesh Kumar Nandwana (Graduated 2015; Master's thesis committee member).

Marigona Bokshi (Graduated 2015; Master's thesis committee member).

David Massey (Research internship; faculty sponsor for UTD Research Scholar Award)

Elva Granado (Master's thesis committee member).

Daniel Hubbard (Applied Cognition and Neuroscience research internship, 2005-2006).

Esther Siler (Applied Cognition and Neuroscience research internship, 2005-2006).

Derrick Chen (Applied Cognition and Neuroscience research internship, 2005).

Tiffani Jantz (Applied Cognition and Neuroscience research internship, 2009).

Caleb Morrell (Applied Cognition and Neuroscience research internship, 2009).

Shaikat Hossain (Applied Cognition and Neuroscience research internship, 2010).

Yvonne Gloria (Applied Cognition and Neuroscience research internship, 2010).

Undergraduate

Daniel Guest (Psychology Honors thesis supervisor).

Daniel Guest (Faculty advisor for the BBS Buhrmester Award and the UTD Undergraduate Research Scholar Award)

David Massey (Faculty advisor for UTD Undergraduate Research Scholar Award)

Amanda Callaway (Teaching internship, Summer 2011).

Melanie Pflaster (Teaching internship, Fall 2011).

Dhirj Gupta (Teaching internship, Spring 2011).

Tiffani Jantz (Honors thesis supervision, 2005).

Emily Paprocki (Teaching internship, Spring 2007).

Michelle Halper (Teaching Internship, Spring 2006).

Ryan Miles (Teaching Internship, Spring 2009).

Scott Alcorn (Teaching Internship, Spring 2010).

Classroom teaching

Spring 2004-2016: Speech Science AUD 6306

Fall 2005, 2007, 2010, 2012, 2014: Speech Perception HCS 6367 / ACN 6367

Fall 2004, 2006, 2009, 2011, 2013, 2015 Speech Perception Laboratory HCS 7372 / ACN 7367

Spring 2003-2006: Speech and Hearing Science HCS 6360

Spring 2003, 2006, 2009-2016 & Summer 2004-2016: Historical Perspectives on Psychology PSY 3360

Spring 2003, 2006, 2009, 2016 & Summer 2004-2016: Minds and Machines Since 1600 CGS 3325

Spring 2004, 2005, 2007, 2008 Experimental Projects PSY 3393

2004-2016, Animal Communication PSY 3364

2000 Strategies of Research PSY 3390

Quantitative Methods for Psychology PSY 3392

Speech and Hearing Science HCS 6360

Cognition/Neuroscience Seminar: Auditory Scene Analysis HCS 7372

Cognition/Neuroscience Seminar: Animal Communication HCS 7372

Hearing HSC 6365

Psychology of Hearing COMD 7348

Computational Systems ACN 7327

Service

University committees

Academic Senate (2011-2014)

Committee on Qualifications of Academic Personnel (9/1/07- 8/31/08)

Committee on Faculty Standing and Conduct (08/31/00 – 08/31/04)

Committee on Educational Policy (2006; vice chair, 2007; 2010-2016)

UTD Discipline Committee (2012-2016)

Advisory Committee for International Education

UTD review panel for Boren Scholarship (Aug 2004)

Committee on Undergraduate Requirements

Faculty Committee for the Southern Association of Colleges & Schools Accreditation Self-Study

Institutional Biosafety Committee

Student Fee Committee (08/04 – 08/05)

Committee on Student Life

Committee on Student Housing

School of Behavioral and Brain Sciences

Callier prize selection committee (2011-2012 and 2013-2015)

BBS Undergraduate Studies Committee (2014-2015)

BBS Structural Issues Committee (2012-2013)

Search Committee for Bilingualism (2010-2011)

Teaching effectiveness committee (2010-2011)

Faculty Personnel and Peer Review Committee (2004-2006, 2009-2012)

Chair, promotion review committee for Bart Rypma

Promotion review committee for Issa Panahi (EE)
Promotion review committee for Carlos Busso (EE)
Promotion review committee for Bill Katz
Computer Usage for Technology and Education
Undergraduate Studies Committee
Faculty Personnel Review Committee
Third Year Review Committee for Andrea Warner-Czyz
Third Year Review Committee for Jeff Martin
Member, Search Committee for Child Speech and Language
Callier prize committee (2009-2010; speech and language)
Human Development Committee on Teaching Effectiveness
Human Development Doctoral Steering Committee
Human Development Curriculum Committees in Psychology and Cognitive Science
Human Development Curriculum Committees in Applied Cognition and Neuroscience.
Human Development Colloquium Series organizer, 1998/1999 (with Susan Jerger)
Human Development Computer Usage for Technology and Education
Human Development Graduate Research / Planning Committee
Human Development Ad Hoc Committee for Periodic Performance Evaluation
Human Development Search Committees in Audiology, Speech Disorders

Professional

Technical Program Committee, Interspeech 2016.
Member, Speech Technical Committee, Acoustical Society of America
Evaluator, Raymond H. Stetson Scholarship in Phonetics and Speech Science (subcommittee of the ASA Speech Technical Committee)
Associate Editor for Speech Perception, Journal of the Acoustical Society of America (from 2002-2006). JASA is the foremost international journal of acoustics, and is considered the top venue for speech research. Responsible for approximately 30 manuscripts per year.
Coordinator, Best Student Paper Award in Speech Communication at the 154th Meeting of the Acoustical Society of America, New Orleans (Nov. 27 – Dec. 1, 2007).
External Assessor (Reader), Reading University, UK.
Promotion reviews, Indiana University-Purdue University Fort Wayne; University of Texas at Austin; University of Alberta.
Panel, Dallas Morning News/Toyota Regional Science and Engineering Fair: Special Awards Judge for the North Texas Regional Chapter of the Acoustical Society of America (annual event, 2004-2015, Fair Park, Dallas).

Ad hoc reviewer

Journal of the Acoustical Society of America

Journal of Phonetics
Journal of Speech, Hearing and Language Research
Speech Communication
Journal of Experimental Psychology: Human Perception and Performance
IEEE Transactions on Speech and Audio Processing
Quarterly Journal of Experimental Psychology
Acta Psychologica
Journal of Communication Disorders
Perception and Psychophysics
Language and Speech
Phonetica
Ear and Hearing
Music Perception
Hearing Research
Emotion and Motivation
National Science Foundation Research Grants
Social Sciences and Humanities Research Council of Canada Research Grants
U.K. Science and Engineering Research Council (SERC) Research Grant