

Curriculum Vitae

Matthew B. Winn, Au.D., Ph.D
Assistant Professor
Speech-Language-Hearing Sciences
University of Minnesota
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Minneapolis, MN 55455

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(1) Education – institutions, degrees granted, dates

B.A., University of Delaware, Psychology & Philosophy, 2001-2005
Au.D, University of Maryland (Clinical audiology), 2005-2010
Ph.D., University of Maryland (Hearing & Speech Sciences), 2005-2011

(2) Ph.D. Dissertation title:

The use of acoustic cues in phonetic perception:
effects of spectral degradation, limited bandwidth and background noise

(3) Employment – institutions (including UW), positions, dates

Assistant Professor Speech-language-Hearing Sciences, College of Liberal Arts,
University of Minnesota-Twin Cities, Minneapolis, MN (August 2018 – present)

Assistant Professor Speech and Hearing Sciences, College of Arts and Sciences,
University of Washington, Seattle, WA (September 2015 – August 2018)

Postdoctoral Researcher Waisman Center, University of Wisconsin-Madison,
Madison, WI (2012-2015)

Clinical Audiologist Veterans Affairs Medical Center, Washington DC (2009-2012)

Graduate research associate Center for Advanced Study of Language, College
Park, MD (2007 – 2009)

(4) Committees and other duties

a. Student committees

	Student	Research topic	Department/University	Completion date
Chair, PhD committees	Steven Gianakas	Speech perception and hearing loss	Speech-Language-Hearing Sciences, University of Minnesota	in progress

	Chieh Kao	Cochlear implants, emotion perception	Speech-Language-Hearing Sciences, University of Minnesota	
Member, PhD committees	Lindsay DeVries	Cochlear implants	Speech and Hearing Sciences, University of Washington	2018
	Mishaela DiNino	Cochlear implants	Speech and Hearing Sciences, University of Washington	2018
	Nicole Chartier	Dialect perception	Linguistics, University of Washington	in progress
	Jesse Resnick	Auditory nerve modeling	Otolaryngology, University of Washington	in progress
AuD Capstone projects	Steven Gianakas	Speech perception and hearing loss	Speech and Hearing Sciences, University of Washington	2018
	Heather Fischle	Phonetics	Speech and Hearing Sciences, University of Washington	2018
	Michael Smith	phonetics	Speech and Hearing Sciences, University of Washington	expected 2019
	Annie Duchen	Cochlear implants	Speech and Hearing Sciences, University of Washington	2018
	Janice Vong	Auditory-visual integration	Speech and Hearing Sciences, University of Washington	2017
Chair, Undergraduate honors projects	Siuho Gong (legal name: Rylie Sanders)	Speech perception and hearing loss	Speech and Hearing Sciences, University of Washington	2018

b. University service

2016 Faculty search committee (Univ of WA)

2017 Reviewer, Royalty Research Fund (Univ of WA)

2018 Chair, audiology graduate admissions committee (Univ of WA)

2018 Undergraduate curriculum committee (Univ of WA)

2018 Auditory Neuroscience Training Grant (Univ of WA)

2018 Faculty search committee (Univ of MN)

2018 Faculty merit committee (Univ of MN)

2019 Faculty search committee (Univ of MN)

c. Editorial

2010 – present – Reviewer

The Journal of the Acoustical Society of America (3 manuscripts/year)

Ear and Hearing (3 / year)

Trends in Hearing (3 / year)

Journal of Speech, Language and Hearing Research (2 / year)

Journal of the Association for Research in Otolaryngology (2 / year)

Hearing Research (1 / year)

Journal of Phonetics (1 / 2 years)

Journal of Communication Disorders (1 / 2 years)

Frontiers in Psychology (1 / 2 years)

PLoS One (1 / 2 years)

Veni grant (Netherlands Organisation for Scientific research (once)

Action on Hearing Loss (once)

(5) Research projects, grants, contracts – funding agencies, dates, amounts of funding, individual's role

Funded Grants Active

Title: NIH-NIDCD R01 DC 017114 “Listening effort in cochlear implant users”

Effective dates: August 2018 – July 2023

Total Award: \$1,837,970

PI: Matthew B. Winn

Status: Active

Title: NIH-NIDCD R03 DC014309 “Measuring listening effort and spectral resolution in cochlear implant patients”

Effective dates: January 2016 – December 2018

Total Award: \$300,000

PI: Matthew B. Winn

Status: Active

Title: Measuring effects of binaural asynchrony on auditory perception (Bloedel mini-grant)

Effective dates: May 2017 – April 2018

Total Award: \$4766.50
PI: Matthew B. Winn
Status: Active (in no-cost extension)

Title: Listening effort in people with hearing impairment (NIH Loan Repayment Program)
Effective dates: 2013 – 2018
Total Award: \$108,000
PI: Matthew Winn
Status: Active

Funded Grants Closed

(none)

Submitted – Pending

Title: Functional Impact of Hidden Hearing Loss: Listening Effort During Speech Perception (NIH-NIDCD R21)
PI: Naomi Bramhall
Status: Not funded

Submitted – But Not Funded

Title: Measuring effects of binaural asynchrony on auditory perception (Royalty Research Fund)
Total Award: \$40,000
PI: Matthew B. Winn
Status: Not funded

(6) Professional service and awards

Professional Membership

2010 – present: Acoustical Society of America
2010 – present: American Auditory Society
2012 – present: Association for Research in Otolaryngology
2015 – 2016: International Society of Audiology

Activities in the Profession

2016 – present: Technical Council, Acoustical Society of America, committee on psychological and physiological acoustics

2018: Association for Research in Otolaryngology mentorship program (clinician-scientist group)

2019: CIAP Mentorship program (fostering communication between scientists and clinicians/patients)

Honors

Pre-Doctoral Training Grant (Univ. of Maryland Center for Comparative Evolution and Biology of Hearing; 2010, 2011)

Distinguished Teaching Award (Univ. of Maryland Center for Teaching Excellence; 2010, 2011)

Dean's Scholar Mentorship Award (Univ. of Maryland College of Behavioral and Social Sciences; 2011)

Charles N. Ford Best translational / Clinical Poster (Univ. of Wisconsin Dept. of Surgery, 2014)

Second place, Poster Pitch Blitz (Association for Research in Otolaryngology, 2014)

Young Investigator Award (8th Int'l Symposium on Objective Measures in Auditory Implants, Toronto)

Young Investigator Travel Award (Association for Research in Otolaryngology, 2015)

(7) Publications, Talks, and Other Presentations

Peer-reviewed publications

1. **Winn, M.B & Idsardi, W.J.** (2008). Musical evidence regarding trochaic inversion. *Language and Literature*, 17 (4), 335-349.
2. **Winn, M.B., Chatterjee, M., & Idsardi, W.J.** (2012). The use of acoustic cues for phonetic identification: Effects of spectral degradation and electric hearing. *Journal of the Acoustical Society of America*, 131, 1465-1479. doi: 10.1121/1.3672705
3. **Winn, M.B., Chatterjee, M., & Idsardi, W.J.** (2013). The roles of voice onset time and F0 in stop consonant voicing perception: Effects of masking noise and low-pass filtering. *Journal of Speech, Language and Hearing Research*, 56, 1097-1107. doi: 10.1044/1092-4388(2012/12-0086)
4. **Winn, M.B., Rhone, A.E., Chatterjee, M., & Idsardi, W.J.** (2013). Auditory and visual context effects in phonetic perception by normal-hearing listeners and listeners with cochlear implants. *Frontiers in Psychology: Auditory Cognitive Neuroscience*, 4, article 824, 1-13. doi: 10.3389/fpsyg.2013.00824

5. Chrabaszcz, A.V., **Winn**, M.B., Lin, C.Y., & Idsardi, W.J. (2014). Acoustic Cues to Perception of Word Stress by English, Mandarin and Russian Speakers. *Journal of Speech, Language, and Hearing Research*, 57, 1468-1479. doi:10.1044/2014_JSLHR-L-13-0279
6. **Winn**, M.B., Edwards, J.R., and Litovsky, R.Y. (2015). The impact of auditory spectral resolution on listening effort revealed by pupil dilation. *Ear and Hearing*. 36(4):e153-65. doi: 10.1097/AUD.0000000000000145
7. **Winn**, M.B. & Litovsky, R.Y. (2015) Using speech sounds to test functional spectral resolution in listeners with cochlear implants. *Journal of the Acoustical Society of America*, 137, 1430-1442. doi: 10.1121/1.4908308
8. Stilp, C.E., Anderson, P.W., **Winn**, M.B. (2015) Predicting contrast effects following reliable spectral properties in speech perception. *Journal of the Acoustical Society of America*, 137, 3466-3476. doi: 10.1121/1.4921600
9. Ehlers, E., Kan, A., **Winn**, M.B., Stoelb, C., Litovsky, R. (2016). Binaural hearing in children using Gaussian enveloped and transposed tones. *Journal of the Acoustical Society of America*, 139, 1724-1733. doi: 10.1121/1.4945588
10. **Winn**, M.B., Won, J.H., Moon, I.J. (2016). Assessment of spectral and temporal resolution in cochlear implant users using psychoacoustic discrimination and speech cue categorization. *Ear and Hearing*, 37(6):e377–e390. doi: 10.1097/AUD.0000000000000328
11. Kong, Y.-Y., **Winn**, M.B., Poellmann, K., Donaldson, G. (2016) Discriminability and perceptual saliency of temporal and spectral cues for final fricative consonant voicing in simulated cochlear-implant and bimodal hearing. *Trends in Hearing*, 20, 1-15. doi: 10.1177/2331216516652145
12. **Winn**, M.B., (2016). Rapid release from listening effort resulting from semantic context, and effects of spectral degradation and cochlear implants. *Trends in Hearing*, 20, 1-17. doi: 10.1177/2331216516669723
13. *DiNino, M., Wright, R., **Winn**, M.B., Bierer, J.A. (2016). Vowel and consonant confusion patterns resulting from spectral manipulations in vocoded stimuli designed to replicate poor electrode-neuron interfaces in cochlear implants. *Journal of the Acoustical Society of America*, 140(6), 4404–4418.
14. Reidy, P., Kristensen, K., **Winn**, M.B., Litovsky, L., Edwards, J. (2017). The acoustics of word-initial fricatives and their effect on word-level intelligibility in children with bilateral cochlear implants. *Ear and Hearing*. doi: 10.1097/AUD.0000000000000349
15. Kapnoura, E., **Winn**, M.B., Kong, E.J., Edwards, J., McMurray, B. (2017). Evaluating the sources and functions of gradience in phoneme categorization: An individual differences approach. *Journal of Experimental Psychology: Human Perception and Performance*, 43, 1594-1611. doi: 10.1037/xhp0000410
16. **Winn**, M.B., Wendt, D., Koelewijn, T., Kuchinsky, S. (2018). Best practices in using pupillometry to measure listening effort: an introduction for those who want to get started. *Trends in Hearing*, 22, 1-32. doi: 10.1177/2331216518800869

17. **Winn, M.B.**, Moore, A. (2018). Pupillometry reveals that context benefit in speech perception can be disrupted by later-occurring sounds, especially in listeners with cochlear implants. *Trends in Hearing*, 22, 1-22. doi: 10.1177/2331216518808962
18. **Winn, M.B.**, Kan, A., Litovsky, R. (2019). Temporal dynamics and uncertainty in binaural hearing revealed by anticipatory eye movements. *Journal of the Acoustical Society of America*, 145, 676–691.
19. *Gianakas, S., & **Winn, M.B.** (2019). Lexical bias in word recognition by cochlear implant listeners. *Journal of the Acoustical Society of America*, 146, 3373-3383.
20. **Winn, M.B.** (2020). Accommodation of gender-related phonetic differences by listeners with cochlear implants and in a variety of vocoder simulations. *Journal of the Acoustical Society of America*, 147, 174-190.
21. Geller, J., **Winn, M.B.**, Mahr, T., Mirman, D. GazeR: A package for processing gaze position and pupil size data. *Behavioral Research Methods (in press)*
22. **Winn, M.B.** Manipulation of voice onset time in speech stimuli: a tutorial and flexible Praat script. *Journal of the Acoustical Society of America (in press)*

* Indicates student lead authorship under my mentorship

Other papers submitted / in revision

*Dirks, C., Nelson, P., **Winn, M.B.**, Oxenham, A. Sensitivity to binaural temporal-envelope beats with single-sided deafness and a cochlear implant as a measure of tonotopic match (revision submitted)

Winn, M.B. & Moore, A. Perceptual weighting of acoustic cues for accommodating gender-related talker differences heard by listeners with normal hearing and with cochlear implants (submitted, JASA)

Winn, M.B. & Teece, K. Slower speaking rate reduces listening effort and increases benefit of contextual cues among listeners with cochlear implants (submitted, Ear & Hearing)

*DiNino, M., Arenberg, J., Duchon, A., Winn, M.B. Effects of age and cochlear implantation on spectrally cued speech categorization. (revision submitted)

Winn, M.B. & O'Brien, G. Flaws in Spectral Ripple Stimuli for Listeners with Cochlear Implants (in revision)

Ihlefeld, A., Thakkar, T., **Winn, M.B.**, Dhar, S., Litovsky, R. Robust spatial release from masking for spectrally degraded vocoded speech (in revision)

Other papers in preparation

* Smith, M.L. & **Winn, M.B.** Individual variability in the adjustment to simulated shallow cochlear implant insertion depths (in prep)

Winn, M.B & Moore, A. Acoustic cues used for accommodating gender-related voice differences heard by listeners with cochlear implants and with normal hearing (in prep)

Winn, M.B. Acoustic phonetic cue weighting in people who use a single cochlear implant and normal hearing in the contralateral ear (in prep)

Invited book chapters

Winn, M.B. & Stilp, C. (2019) "Phonetics and the Auditory System" in *The Routledge Handbook of Phonetics* (W. Katz & P. Assmann, eds).

Published Abstracts (Poster presentations)

Winn, M.B., Blodgett, A., Bauman, J., Bowles, A., Charters, L., Rytting, C.A., & Shamoo, J. (2008). Vietnamese monophthong vowel production by native speakers and American adult learners. "Acoustics '08" the joint meeting of the Acoustical Society of America, the European Acoustics Association, and the Société Française D'Acoustique, Paris, France.

Lin, C., Lukyanenko, A., **Winn, M.B.**, Idsardi, W. (2012). Acoustic Cues to Perception of Word Stress by English, Mandarin and Russian Speakers. Boston University Conference on language Development, Boston, MA.

Moon, I.J., Won, J.-H. & **Winn, M.B.** (2014). Assessment of spectral and temporal resolution in cochlear implant users: speech and psychoacoustic approach. MidWinter meeting of the Association for Research in Otolaryngology, San Diego, CA.

Kan, A., **Winn, M.B.**, Litovsky, R.Y. (2015) Investigating the ear advantage using pupillometry. MidWinter meeting of the Association for Research in Otolaryngology, San Diego, CA.

Winn, M.B., Misurelli, S.M., Litovsky, R.Y. (2015). The impact of spectral resolution on the efficiency of sentence processing. Poster presented at the 38th Annual midwinter meeting of the Association for Research in Otolaryngology.

Venker, C., **Winn, M.B.**, Ellis-Weismer, S., Saffran, J., Edwards, J. (2015). Mutual Exclusivity in Young Children with ASD: An Eye-Gaze Study. Presentation accepted to the International Meeting for Autism Research, Salt Lake City, UT.

Winn, M.B. (2016) Sound quality impacts the speech and effort of sentence perception. Poster presented at the meeting of the American Auditory Society, Scottsdale, AZ.

Winn, M.B. (2016). Rapid reduction of listening effort resulting from predicting speech processing, and delays associated with cochlear implantation. Poster presented at the Acoustical Society of America, Salt Lake City, UT.

Winn, M.B. (2016). Using sociolinguistic phonetic perception to fine tune cochlear implant simulations. Poster presented at the Acoustical Society of America, Salt Lake City, UT.

DiNino, M., **Winn, M.B.**, Bierer, J.A. (2016). Cochlear implant listener vowel identification performance and confusion patterns with reduced channel programs. Poster presented at the Acoustical Society of America, Honolulu, HI.

- Gianakas, S., **Winn**, M.B. (2016). Exploiting the Ganong effect to probe for phonetic uncertainty resulting from hearing loss. Poster presented at the Acoustical Society of America, Honolulu, HI.
- Moore, A., **Winn**, M.B. (2016). Acoustic cues underlying the adjustment to talker sex in perception of fricative sounds. Poster presented at the Acoustical Society of America, Honolulu, HI.
- O'Brien, G., **Winn**, M.B. (2016). Uncertainty in binaural hearing linked to inherent envelope fluctuations. Poster presented at the Acoustical Society of America, Honolulu, HI.
- Gianakas, S., **Winn**, M.B. (2017). Severe deficits in perception of anticipatory coarticulation in cochlear implant listeners in cochlear implant listeners. Poster presented at the Conference on Implantable Auditory Prostheses, Lake Tahoe, CA.
- Gianakas, S., **Winn**, M.B. (2017). Revealing phonetic uncertainty in cochlear implant listeners. Poster presented at the Conference on Implantable Auditory Prostheses, Lake Tahoe, CA.
- Moore, A., **Winn**, M.B. (2017). Adjustment to variable voice acoustics by cochlear implant listeners. Poster presented at the Conference on Implantable Auditory Prostheses, Lake Tahoe, CA.
- O'Brien, G., **Winn**, M.B. (2017). Aliasing of spectral ripples through CI processors: a challenge to the interpretation of correlation with speech recognition scores. Poster presented at the Conference on Implantable Auditory Prostheses, Lake Tahoe, CA.
- DiNino, M., **Winn**, M.B., Duchon, A., Arenberg, J. (2018). Phonetic cue-weighting in children and adults with cochlear implants. Poster presented at the Annual midwinter meeting of the Association for Research in Otolaryngology, San Diego, CA.
- Jahn, K., DiNino, M., **Winn**, M.B., Arenberg, J. (2018). Relating vowel confusions to focused thresholds in pediatric cochlear implant users. Poster presented at the Annual midwinter meeting of the Association for Research in Otolaryngology, San Diego, CA.
- Burg, E., Thakkar, T., Godar, S., Winn, M.B., Litovsky, R. (2019). Listening effort in bilateral cochlear implant users with asymmetric across-ear performance in speech perception. Poster presented at the Annual midwinter meeting of the Association for Research in Otolaryngology, Baltimore, MD.
- Dirks, C., & **Winn**, M.B. (2019). Envelope compression as a qualifying factor in the "eight-channel" limit. Poster presented at the Conference on Implantable Auditory Prostheses, Lake Tahoe, CA.
- Gianakas, S., & **Winn**, M.B. (2019). Disruption of the benefit of sentence context in listeners with cochlear implants. Poster presented at the Conference on Implantable Auditory Prostheses, Lake Tahoe, CA.
- Smith, M., & **Winn**, M.B. (2019). Individual differences in recalibrating to upward spectral shifts. Poster presented at the Conference on Implantable Auditory Prostheses, Lake Tahoe, CA.
- Burg, E., Thakkar, T., Anderson, S., Godar, S., **Winn**, M.B., Litovsky, R. (2019). Does degree of speech asymmetry modulate bilateral speech intelligibility and listening effort in adults with bilateral cochlear implants and adults with normal hearing? Poster presented at the Conference on Implantable Auditory Prostheses, Lake Tahoe, CA.
- Winn**, M.B. (2019). The effect of speaking rate on CI users' listening effort and access to sentence context. Poster presented at the Conference on Implantable Auditory Prostheses, Lake Tahoe, CA.

- Burg, E., Thakkar, T., Anderson, S., **Winn, M.B.**, Litovsky, R. (2020). Effects of asymmetric envelope compression on speech intelligibility and binaural unmasking. 2020 Speech In Noise Workshop, Toulouse, France.
- Burg, E., Thakkar, T., Anderson, S., **Winn, M.B.**, Litovsky, R. (2020). The effect of asymmetric dynamic range on speech intelligibility and binaural unmasking in normal hearing individuals listening to vocoded speech. Poster presented at the Annual midwinter meeting of the Association for Research in Otolaryngology, San Jose, CA.
- Gianakas, S., Fitzgerald, M., **Winn, M.B.** (2020). Identifying listeners whose speech intelligibility depends on an extra moment to repair perceptual mistakes. Poster presented at the Annual midwinter meeting of the Association for Research in Otolaryngology, San Jose, CA.
- Winn, M.B.**, Teece, K. (2020). Pupillometry reveals the cost of recovering from errors in speech perception. Poster presented at the Annual midwinter meeting of the Association for Research in Otolaryngology, San Jose, CA.
- Winn, M.B.** (2020). Asymmetrical forward and backward auditory context effects in listeners with normal hearing and with cochlear implants. Poster presented at the Annual midwinter meeting of the Association for Research in Otolaryngology, San Jose, CA.

Invited Lectures / Speeches

International

- Winn, M.B.**, (2016). Objective measures of effort and speech perception in hearing aid users. Podium presentation at the World Congress of Audiology, Vancouver, BC.
- Winn, M.B.** (2017). Using the pupil response to measure how hearing loss and task demands affect the timing (not just the amount) of listening effort. Podium presentation at Pupillometry in Hearing Science workshop, Amsterdam.
- Winn, M.B.** (2017). Temporal dynamics of speech perception and listening effort in people with hearing impairment. Invited presentation at University College London, London, England.
- Winn, M.B.** (2018). Invitation to speak at XII International Meeting on Advances in Audiology, Salamanca, Spain
- Winn, M.B.** (2018). The impact of hearing impairment and cochlear implants on the timing of listening effort and speech understanding. Invited presentation at Oticon Headquarters, Smørum, Denmark.

National

- Winn, M.B.**, Edwards, J.R., Litovsky, R.Y. (2015). The relationship between phonetic cue weighting and listening effort in listeners with cochlear implants. Invited podium presentation at the 169th meeting of the Acoustical Society of America, Pittsburgh, PA.
- Winn, M.B.** (2016). Pupillary responses signify more than just effort: windows into processing, prediction, reflection, and uncertainty. Podium presentation at the Acoustical Society of America Fall meeting, Honolulu, HI.

- Winn, M.B.** (2017). Pupillary responses show deployment of listening effort during and after the processing of speech. Invited presentation at National Center for Rehabilitative Auditory Research; nationally telecast VA audiology research seminar.
- Winn, M.B.** (2017). Speech perception with a cochlear implant: the rules are different. Invited podium presentation at the Conference on Implantable Auditory Prostheses. Lake Tahoe, CA.
- Winn, M.B., Picou, E., Teubner-Rhodes, S., Eckert, M.** (2017). Measuring and understanding listening effort. Invited presentation for American Academy of Audiology nationally telecast e-seminar.
- Winn, M.B.** (2017). Using pupillometry to look inside the process of repairing mistakes in speech perception. Invited presentation at Boston University Pupillometry Symposium, Boston, MA.
- Winn, M.B.** (2017). Temporal dynamics of speech perception and listening effort in people with hearing impairment. Invited presentation at Boys Town National Research Hospital, Omaha, NE.
- Winn, M.B.** (2018). More readable code in R using pipes and layers. Invited presentation at ancillary meeting at the 40th Annual midwinter meeting of the Association for Research in Otolaryngology, Baltimore, MD.
- Winn, M.B. & Moore, A.** (2019). Backwards and indirect context effects in accommodating gender differences in speech. Podium presentation at the Acoustical Society of America Spring meeting, Louisville, KY.
- Winn, M.B.** (2019). Understanding and measuring listening effort in people with hearing loss. Invited presentation at Northeast Ohio Medical University, Kent, OH.
- Winn, M.B. & Teece, K.** (2019). Speech perception tests motivated by everyday patient experience. Invited Podium presentation at the Annual Midwest CI Crash research conference, Madison, WI.
- Winn, M.B.** (2019). Listening effort: How it affects your patients' lives and how to measure it. Invited podium presentation at the annual convention of the American Speech-language Hearing Association, Orlando, FL.
- Winn, M.B.** (2020). Listening effort associated with misperceptions and confusions in speech perception by individuals with cochlear implants. Podium presentation at the annual Rush Ear Day conference, Chicago, IL.

Local

- Winn, M.B.** (2019) The Time course of Speech Processing in Listeners with Normal Hearing and with Cochlear Implants. Annual Symposium of the Center for Applied and Translational Sensory Science

Refereed podium presentations

- Winn, M.B., Rhone, A.E., Idsardi, W.J. & Chatterjee, M.** (2013). Auditory and visual adaptation in cochlear implant speech perception. Podium presentation at the annual meeting of the American Auditory Society, Scottsdale, AZ.

- Winn, M.B. and Litovsky, R.Y. (2014).** Measuring listening effort in CI listeners using pupil dilation. Podium presentation at the 8th International Symposium on Objective Measures in Auditory Implants, Toronto, ON, Canada.
- Winn, M.B. (2014).** Single-sided deafness with a cochlear implant: a unique opportunity to learn about speech perception and the auditory system. Podium presentation at the CRASH Cochlear Implant Research Mini-Conference, Madison, WI.
- Winn, M.B. and Litovsky, R.Y. (2014).** The impact of bilateral cochlear implantation on listening effort revealed through measurements of pupil dilation. Podium presentation at the 2014 American Cochlear Implant Alliance Conference, Nashville, TN.
- Winn, M.B., Buhr-Lawler, M., Kan, A., Jones, H., Litovsky, R., Gubbels, S. (2014).** The impact of adding a contralateral cochlear implant to a normal hearing ear in terms of spatial hearing abilities and listening effort during speech perception. Podium presentation at the 2014 American Cochlear Implant Alliance Conference, Nashville, TN.
- Winn, M.B., Litovsky, R.Y. (2015).** The roles of harmonicity and temporal pitch in the perception of speech in noise: a study of intelligibility and listening effort. Podium presentation at the 38th Annual midwinter meeting of the Association for Research in Otolaryngology, Baltimore, MD.
- Winn, M.B. (2016).** Hearing impairment and listening effort: How do we measure it and why does it matter? Podium presentation at the local chapter of the Hearing Loss Association of America, Seattle, WA and Bellevue, WA.
- Winn, M.B. (2016).** Sensitivity to binaural cues above threshold as revealed by eye movements. Podium presentation at the Acoustical Society of America, Salt Lake City, UT.
- DiNino, M., **Winn, M.B., Bierer, J.A. (2016).** Cochlear implant listener vowel identification performance and confusion patterns with selective channel activation programs. Podium presentation at the Acoustical Society of America Fall meeting, Honolulu, HI.
- Winn, M.B. (2017).** Signs of Post-stimulus Auditory Processing in Pupillary Responses. Podium presentation at the 39th Annual midwinter meeting of the Association for Research in Otolaryngology, Baltimore, MD.
- O'Brien, G., **Winn, M.B. (2017).** Uncertainty in Binaural Hearing Linked to Inherent Envelope Fluctuations. Podium presentation at the 39th Annual midwinter meeting of the Association for Research in Otolaryngology, Baltimore, MD.
- Winn, M.B. (2017).** Dynamic control over the allocation of listening effort in speech perception. Podium presentation at the Acoustical Society of America, Boston, MA.
- DiNino, M., **Winn, M.B., Arenberg, J. (2017).** Vowel recognition scores of children with cochlear implants are related to speech-based spectral resolution and time with the Implant. Podium presentation at the American Cochlear Implant Alliance, Washington, DC.
- Winn, M.B., Moore, A. (2017).** Direct and indirect context effects in speech perception by CI listeners. Podium presentation at the CI Crash conference, Madison, WI.
- Gianakas, S., **Winn, M.B. (2017).** Severe deficits in perception of coarticulation in listeners with cochlear implants. Podium presentation at the CI Crash conference, Madison, WI.
- Gianakas, S., **Winn, M.B. (2018).** Listening to degraded speech can cause listeners to "wait and see". Presentation at the meeting of the Acoustical Society of America, Minneapolis, MN.
- Winn, M.B. (2018).** Dynamic allocation of listening effort when listening to speech. Presentation at the meeting of the Acoustical Society of America, Minneapolis, MN.

Winn, M.B. & O'Brien, G. (2019). Flaws in the use of spectral ripples in cochlear implants. Podium presentation at the Acoustical Society of America, Louisville, KY.

TEACHING EXPERIENCE

Introduction to Phonetic Science 15 semesters	U. Maryland Enrollment: ~40 undergraduates
Implantable Auditory Protheses Fall 2012	U. WI-Madison Enrollment: ~15 AuD students
Phonetics (primary instructor of record) Winter 2016	U. Washington Enrollment: ~65 undergraduates
Hearing Science Winter 2016; 2017	U. Washington Enrollment: ~70 undergraduates
Advanced Hearing Science Autumn 2016; 2017	U. Washington Enrollment: ~15 AuD students
Physics and Biology of Spoken Language Fall 2018; 2019 Spring 2020	U. Minnesota Enrollment: ~45 undergraduates
Cochlear Implants Spring 2019	U. Minnesota Enrollment: 19 AuD students

TEACHING IMPROVEMENT

- Early Career Teaching and Learning Program (2018-2019 academic year)
- External teaching consultation (Spring 2019) with Paul Ching, Center for Education Innovation
- External teaching evaluation (Spring 2019) with Tiffany Wolf, College of Veterinary Medicine

OTHER PROFESSIONAL ACTIVITIES

Consultant, Minnesota Public Radio segment "There is only one Beethoven" (provided input for the content of this on this 36-minute program regarding the nature of hearing impairment and how it affects peoples' lives, provided audio content and simulations of tinnitus and hearing loss) available online at <https://www.decomposedshow.org/episode/2019/05/14/there-is-only-one-beethoven>

Community engagements / service to the field

- Winn, M.B. (2016). Hearing impairment and listening effort: How do we measure it and why does it matter? Podium presentation at the local chapter of the Hearing Loss Association of America, Seattle, WA and Bellevue, WA.
- Winn, M.B. (2016). Hearing Loss and Listening Effort: How do we measure it and why does it matter? Invited podium presentation at Seattle Children's hospital, Seattle, WA.
- Winn, M.B. (2016). The importance of effort in speech communication. Contributed article to Hearing Loss Association of America newsletter.
- (2016) Paws-on-Science community event – demonstrations of hearing and sound

- Winn, M.B., Picou, E., Teubner-Rhodes, S., Eckert, M. (2017). Measuring and understanding listening effort. Invited presentation for American Academy of Audiology nationally telecast e-seminar.
- Winn, M.B. (2019) The Time course of Speech Processing in Listeners with Normal Hearing and with Cochlear Implants. Annual Symposium of the Center for Applied and Translational Sensory Science
- Winn, M.B. (2019) Listening effort: ways that it affects your life and how it is measured. Invited podium presentation at the Hearing Loss Association of America.
- Winn, M.B. (2019) Listening effort: ways that it affects your life and how it is measured. Podium presentation at M health / Fairview audiology.
- Winn, M.B. (2019) Recognizing listening effort in people with hearing loss. Invited editorial in the newsletter of the Minnesota Academy of Audiology, Winter 2019.
- Consultant, Minnesota Public Radio segment "There is only one Beethoven" (provided input for the content of this on this 36-minute program regarding the nature of hearing impairment and how it affects peoples' lives, provided audio content and simulations of tinnitus and hearing loss) available online at <https://www.decomposedshow.org/episode/2019/05/14/there-is-only-one-beethoven>
- Winn, M.B.** (2019) Preparing for Job Talks. Department of Speech-Language-Hearing Sciences PhD student ProSeminar. February 25, 2019.

WEBSITES

www.mattwinn.com

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