

CHRISTOPHER C. HEFFNER
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EDUCATION AND TRAINING

Assistant Professor Department of Communicative Disorders and Sciences, University at Buffalo, Buffalo, NY	09/2020 – present
Assistant Research Professor Department of Communicative Disorders and Sciences, University at Buffalo, Buffalo, NY	10/2019 – 08/2020
Postdoctoral Fellow Department of Speech, Language, and Hearing Sciences, University of Connecticut, Storrs, CT Advisor: Emily Myers (Speech, Language, and Hearing Sciences; Psychological Science)	08/2017 – 07/2020
PhD, Neuroscience and Cognitive Science MS, Neuroscience and Cognitive Science University of Maryland, College Park, MD Advisors: Bill Idsardi (Linguistics); Rochelle Newman (Hearing and Speech Sciences) Other Committee Members: Ellen Lau (Linguistics); Bob Slevc (Psychology); Catherine Carr (Biology, Dean’s Representative) Dissertation Title: “Language Science Meets Cognitive Science: Categorization and Adaptation”	05/2017 05/2015
Visiting Scholar The Ohio State University, Columbus, OH	05/2016 – 07/2016
BA (Linguistics) and BS (Psychology), With High Honors Michigan State University, East Lansing, MI Thesis Advisors: Karthik Durvasula (Linguistics); Laura Dilley, Devin McAuley (Psychology, Honors) Thesis Titles: “Languages with Opacity are Opaque: A Failure to Replicate” (Linguistics); “Going the Distance: The Effects of Distal and Global Speech Rate on Word Segmentation” (Psychology)	05/2012

GRANT FUNDING

EXTERNAL

ASHFoundation New Investigators Research Grant; ASHFoundation; \$10,000 “Speech perception in Parkinson’s Disease: Loudness and rate”	01/2022 – 12/2022
Hunt Postdoctoral Research Fellowship; Acoustical Society; \$60,000 “Speech perceptual learning in Parkinson’s Disease”	08/2019 – 12/2021
SBE Postdoctoral Research Fellowship; NSF SMA 1714858; \$138,000 “Identifying a common mechanism for phonetic learning and phonetic adaptation”	08/2017 – 07/2019
Doctoral Dissertation Research Improvement Award; NSF BCS 1650791; \$17,617 “Doctoral Dissertation Research: Categorization and segmentation inside and outside language”	03/2017 – 03/2019
Graduate Research Fellowship; NSF	09/2013 – 08/2016

INTERNAL

Buffalo Blue Sky Grant , with E. Mercado and K. Tjaden; University at Buffalo	05/2021
Doctoral Dissertation Dean's Research Fellowship ; College of Behavioral and Social Sciences, University of Maryland, College Park	05/2016
Research Training Award , Program in Neuroscience and Cognitive Science, University of Maryland, College Park	02/2016

HONORS AND AWARDS

Jacob Goldhaber Travel Fellowship ; Graduate School, University of Maryland, College Park	09/2015 07/2016
Graduate Fellow ; Maryland Language Science Center, University of Maryland, College Park	07/2013 – 05/2017
Flagship Fellowship ; Graduate School, University of Maryland, College Park	08/2012 – 05/2017
Dean's Fellowship ; Program in Neuroscience and Cognitive Science, University of Maryland, College Park	08/2012
Alumni Distinguished Scholarship ; Honors College, Michigan State University	08/2008 – 05/2012

PUBLICATIONS

JOURNAL ARTICLES

- Heffner, C. C.**, Fuhrmeister, P., Luthra, S., Mechtenberg, H., Saltzman, D., & Myers, E. B. (2022). Reliability for perceptual flexibility in speech: Identification, learning, and adaptation. *Brain and Language*, 226: 105070.
- Heffner, C. C.**, Jaekel, B. N., Newman, R. S., & Goupell, M. J. (2021). Accuracy and cue use in word segmentation for cochlear-implant listeners and normal-hearing listeners presented vocoded speech. *Journal of the Acoustical Society of America*, 150(4): 2936-2951.
- Heffner, C. C.**, & Myers, E. B. (2021). Individual differences in phonetic plasticity across native and non-native contexts. *Journal of Speech, Language, and Hearing Research*, 64(10): 3720-3733.
- Heffner, C. C.**, Newman, R. S., & Idsardi, W. J. (2021). Action at a distance: Long-distance rate adaptation in event perception. *Quarterly Journal of Experimental Psychology*, 74(2): 312-325.
- Heffner, C. C.**, Idsardi, W. J., & Newman, R. S. (2019). Constraints on learning disjunctive, unidimensional auditory and phonetic categories. *Attention, Perception, and Psychophysics*, 81(4): 958-980.
- Liter, A., Huelskamp, A., **Heffner, C. C.**, & Schmitt, C. (2018). Grammaticalized number, implicated presuppositions, and the plural. *Glossa*, 3(1): 39.
- Liter, A., **Heffner, C. C.**, & Schmitt, C. (2017). The interpretation of plural morphology and (non-)obligatory number marking: An argument from artificial language learning. *Language Learning and Development*, 13(4): 451-480.
- Heffner, C. C.**, Newman, R. S., & Idsardi, W. J. (2017). Support for context effects on segmentation and segments depends on the context. *Attention, Perception, & Psychophysics*, 79(3): 964-988.
- Neufeld, C., Kramer, S. E., Lapinskaya, N., **Heffner, C. C.**, Malko, A., & Lau, E. F. (2016). The electrophysiology of basic phrase building. *PLoS ONE*, 11(10): e0158446.
- Heffner, C. C.**, & Slevc, L. R. (2015). Prosodic structure as a parallel to musical structure. *Frontiers in Psychology*, 6, 1962.
- Morrill, T. H., Baese-Berk, M., **Heffner, C. C.**, & Dilley, L. C. (2015). Interactions between distal speech rate, linguistic knowledge, and speech environment. *Psychonomic Bulletin and Review*, 22(5): 1451-1457.
- Heffner, C. C.**, Newman, R. S., Dilley, L. C., & Idsardi, W. J. (2015). Age-related differences in speech rate perception do not necessarily entail age-related differences in speech rate use. *Journal of Speech, Language, and Hearing Research*, 58(4): 1341-1349.
- Baese-Berk, M., **Heffner, C. C.**, Dilley, L. C., Pitt, M. A., Morrill, T., & McAuley, J. D. (2014). Long-term temporal tracking of speech rate affects spoken-word recognition. *Psychological Science*, 25(8): 1546-1553.
- Heffner, C. C.**, Dilley, L. C., McAuley, J. D., & Pitt, M. (2013). When cues combine: How distal and proximal acoustic cues are integrated in word segmentation. *Journal of Language and Cognitive Processes*, 28(9): 1275-1302.

Dilley, L. C., & **Heffner, C. C.** (2013). The role of F0 alignment in distinguishing categories in American English intonation: Evidence from American English. *Journal of Speech Sciences*, 3: 3-67.

BOOK CHAPTERS

Dilley, L., Wallace, J., & **Heffner, C.** (2012). Perceptual isochrony and fluency in speech by normal talkers under varying task demands. In *Prosodies: Context, Function, and Communication*, O. Niebuhr and H. Pfitzinger (Eds.), *Language, Context, and Cognition series*, Walter deGruyter.

IN PROGRESS

Heffner, C. C. & Myers, E. B. (submitted). Impaired perceptual phonetic plasticity in Parkinson's Disease.

IN PREPARATION

Heffner, C. C., Idsardi, W. J., & Newman, R. S. (in preparation). German-speaking zombies in the museum: Incidental learning of disjunctive phonetic categories.

Heffner, C. C., Al-Thowaini, B. M., & Rytting, C. A. (in preparation). Arabic consonant length perception is affected by distal speech rate.

CONFERENCE PRESENTATIONS

RESEARCH-FOCUSED

Heffner, C. C., & Myers, E. B. (2021, December). *Impaired phonetic learning in Parkinson's Disease*. Poster presented at the one-hundred-and-eighty-first meeting of the Acoustical Society of America (ASA), Seattle, WA.

Heffner, C. C., & Myers, E. B. (2019, November). *Good (explicit) learners are good adapters: Cross-task correlations in phonetic plasticity*. Poster presented at the sixtieth meeting of the Psychonomic Society, Montréal, QC, Canada.

Heffner, C. C., & Myers, E. B. (2019, August). *Behavioral and neural correlates of phonetic plasticity*. Poster presented at the eleventh annual meeting of the Society for Neurobiology of Language, Helsinki, Finland.

Heffner, C. C., & Myers, E. B. (2019, May). *Variability in context effects on rate adaptation within individuals*. Talk presented at the one-hundred-and-seventy-seventh meeting of the Acoustical Society of America (ASA), Louisville, KY.

Heffner, C. C., & Myers, E. B. (2018, November). *Reliability and individual differences in phonetic learning and adaptation*. Poster presented at the fifty-ninth annual meeting of the Psychonomic Society, New Orleans, LA.

Heffner, C., Saltzman, D., Formica, S., & Myers, E. (2018, August). *Impaired incidental phonetic learning in people with aphasia*. Poster presented at the tenth annual meeting of the Society for Neurobiology of Language, Québec City, QC, Canada.

Heffner, C. C., Newman, R. S., & Idsardi, W. J. (2017, November). *Viewers adapt to rate changes in event perception*. Poster presented at the fifty-eighth meeting of the Psychonomic Society, Vancouver, BC, Canada.

Heffner, C. C., & Slevc, L. R. (2017, August). *Musical ability predicts the ability to learn novel speech sound categories*. Poster presented at the 2017 Society for Music Perception and Cognition Meeting, San Diego, CA.

Dilley, L., Arjmandi, M. K., Ireland, Z., **Heffner, C. C.**, & Pitt, M. (2016, December). *Glottalization, reduction, and acoustic variability in function words in American English*. Poster presented at the fifth Joint Meeting of the Acoustical Society of America and the Acoustical Society of Japan, Honolulu, Hawai'i.

Heffner, C. C., Al-Thowaini, B., & Rytting, C. A. (2016, September). *Context speech rate can affect Arabic geminate perception*. Poster presented at the twenty-second International Congress on Acoustics, Buenos Aires, Argentina.

Heffner, C. C., Jaekel, B., Newman, R. S., & Goupell, M. (2016, January). *An exploratory study of word segmentation in CI users and vocoded speech*. Paper presented at the Mid-Atlantic Seminar on Hearing (MASH), College Park, MD.

Heffner, C. C., Idsardi, W. J., & Newman, R. S. (2015, November). *Support for a dual-systems model of speech sound category learning from goodness judgments*. Poster presented at the fifty-sixth annual meeting of the Psychonomic Society, Chicago, IL.

Liter, A., Huelskamp, A., **Heffner, C. C.**, & Schmitt, C. (2015, October). *Non-grammaticalized number entails an exclusive interpretation of plural morphology*. Paper presented at the Workshop on the Linguistic and Cognitive Aspects of Quantification (LCQ 2015), Budapest, Hungary.

Heffner, C. C., & Newman, R. S. (2014, July). *A more slowly ticking clock isn't less useful*. Paper presented at the 2014 Universitas 21 Graduate Research Conference, Auckland, New Zealand.

Heffner, C. C., & Idsardi, W. J. (2014, January). *Limits on phonetic category learning*. Paper presented at the eighty-eighth annual Meeting of the Linguistics Society of America (LSA), Minneapolis, MN.

- Heffner, C. C.,** & Newman, R. S. (2013, October). *Differences in timing perception may not entail differences in timing use*. Poster presented at the fifth international Aging and Speech Communication conference, Bloomington, IN.
- Liter, A., **Heffner, C. C.,** & Schmitt, C. (2013, October). *Inclusive plural interpretations depend on grammaticalized number: An argument from artificial language learning*. Paper presented at the Workshop on the Acquisition of Quantification, University of Massachusetts, Amherst, MA.
- Heffner, C. C.,** & Newman, R. S. (2013, June). *Canadian oats and Canadian goats: Comparing distal cues to segmentation and segments*. Poster presented at the twenty-first International Congress on Acoustics, Montréal, QC, Canada.
- Liter, A., **Heffner, C. C.,** & Schmitt, C. (2013, April). *An artificial language investigation of number and number neutrality*. Paper presented at the third annual Great Lakes Expo for Experimental and Formal Undergraduate Linguistics (GLEEFUL), East Lansing, MI.
- Heffner, C. C.,** Dilley, L. C., & McAuley, J D. (2012). *Going the distance: The effects of local and global speech rate on word segmentation*. Paper presented at:
- The Perspectives on Rhythm and Timing (PoRT) workshop, Glasgow, Scotland, UK, July 2012.
 - The second annual Great Lakes Expo for Experimental and Formal Undergraduate Linguistics (GLEEFUL), East Lansing, MI, April 2012.
- Heffner, C. C.,** & Dilley, L. C. (2011, April). *Unlikely allies: Acoustic and syntactic cues in word segmentation*. Paper presented at:
- The first annual Great Lakes Expo for Experimental and Formal Undergraduate Linguistics (GLEEFUL), East Lansing, MI.
 - The first annual Midwest Cognitive Science Meeting, East Lansing, MI.
- Heffner, C. C.,** Liter, A., & Schmitt, C. (2011, April). *Dogs not put in boxes by boys: Learning a novel number system*. Poster session presented at the first annual Great Lakes Expo for Experimental and Formal Undergraduate Linguistics (GLEEFUL), East Lansing, MI.
- Dilley, L., Wallace, J., & **Heffner, C.** (2011, April). *Perceptual isochrony and fluency in speech by normal talkers under varying task demands*. Poster session presented at the first annual Midwest Cognitive Science Meeting, East Lansing, MI.
- Heffner, C.,** & Dilley, L. C. (2010, November). *When cues collide: How distal speech rate and proximal acoustic information influence word segmentation*. Poster session presented at the fifty-first annual meeting of the Psychonomic Society, St. Louis, MO.
- Dilley, L. C., Pitt, M., & **Heffner, C.** (2010, July). *What information in speech conveys speaking-rate effects in lexical perception?* Poster session presented at the Conference on Laboratory Phonology (LabPhon) XII, Albuquerque, NM.

PEDAGOGY- AND OUTREACH-FOCUSED

- Heffner, C. C.** (2016, April). *Turning students into researchers: Linguistics experiments in a collaborative classroom*. Paper presented at the Innovations in Teaching and Learning Conference, College Park, MD.
- Lidz, J., Lau, E., **Heffner, C.,** Dudley, R., & Phillips, C. (2015, January). *Expanding our reach and theirs with linguistics research*. Paper presented in the “Linguistics for everyone: Tips and tricks for do-it-yourself-ers” panel at the eighty-ninth annual Meeting of the Linguistics Society of America (LSA), Portland, OR.

INVITED TALKS

- Heffner, C. C.** (2020, November). *Phonetic Plasticity: Rate, Accent, and Learning*. Presented at the University of Illinois, Urbana-Champaign Department of Linguistics Colloquium (Remotely)
- Heffner, C. C.** (2019, August/September/October). *Individual Differences in Phonetic Plasticity: Rate, Accent, and Learning*. Presented at:
- Institute for Computational Linguistics, University of Zürich, Zürich, Zürich, Switzerland
 - Department of Linguistics and English Language, University of Edinburgh, Edinburgh, Scotland, UK
 - Department of Language and Linguistic Science, University of York, York, England, UK
 - Max Planck Institute for Empirical Aesthetics, Frankfurt, Hesse, Germany
 - Cognitive Science Colloquium Series, University at Buffalo, Buffalo, NY
- Heffner, C. C.** (2018, November). *Plasticity in phonetic representations*. Psycholinguistics lab meeting, University of Massachusetts Amherst, Amherst, MA.
- Heffner, C. C.** (2018, March). *Plasticity in phonetic learning: Limits and linkages in categorization*. Cognitive Science Colloquium, Villanova University, Villanova, PA.
- Heffner, C. C.** (2015, June). *Why do Europeans think that I'm German? Studies of phonetic category learning*. University of Tübingen Mini-Workshop, Tübingen, Baden-Württemberg, Germany.

Heffner, C. C. (2015, April). *What's the difference between a Spartan and a Wolverine? An interdisciplinary study of phonetic category learning.* Michigan State Undergraduate Linguistics Conference (MSULC), East Lansing, MI.

TEACHING EXPERIENCE

- Instructor**, CDS 199 (Animal Communication and Human Language) **Fall 2021**
I created a first-year seminar, open to all UB students regardless of major, from scratch.
- Instructor**, CDS 389 (General and Speech Acoustics) **Spring 2021**
I taught a required course in the BA program using an online modality (S21) then in-person (S22). **Spring 2022**
- Instructor**, CDS 428/528 (Neural Basis of Communication) **Fall 2020**
I overhauled and taught a required course in the MA and AuD programs using an online modality (F20) **Fall 2021**
and then to an in-person modality (F21).
- Co-Instructor**, LING 499L (Biology of Language) **Spring 2017**
I helped to turn this seminar into a more regular part of the Linguistics curriculum. For the course proper (which has 6 students), I evaluated presentations, prepared labs, and oversaw a final paper.
- Instructor**, LING 449E (Seminar: Biology of Language) **Fall 2015**
I created the entirety of this 7-student senior seminar, including the syllabus and course structure. I evaluated presentations, prepared biweekly labs, and oversaw the development of a final project.
- TA**, LING 322 (Phonology II) **Spring 2015**
I graded, held office hours, and gave one 75-minute lecture for a class of about 12 students.
- TA**, LING 321 (Phonology I) **Fall 2013**
I graded, held office hours, and gave two 75-minute lectures for a class of about 25 students.

SEMINARS LED

- "Praat", HESP Toolkit Series, College Park, MD **March 2015**
I conducted a similar seminar to the one I led at George Washington University, teaching people how to use Praat scripting to automate phonetic processing.
- "Linguistics for Everyone" outreach presentation, Linguistics Society of America meeting, Portland, OR **January 2015**
I assisted other UMD language scientists in instructing linguists and other conference-goers about how to perform effective outreach.
- "Praat", George Washington University, Washington, DC **December 2014**
I was paid as a consultant on a project related to bilingual children, wherein I instructed GWU students and faculty about how to use Praat to automate phonetic analyses.
- "Artificial Languages", HESP Toolkit Series, University of Maryland, College Park, MD **November 2012**
I created and ran a seminar related to the use of artificial languages in language-related experiments.

COURSE GUEST LECTURES

EXTERNAL

- Neuroscience of language, BIOL 3833 (Introduction to Neurobiology) **April 2020**
I created and gave a lecture remotely at the University of Oklahoma conveying the basics of **July 2020**
neurolinguistics.
- Perception of prosody, UGS 200H (Language and Music Honors Research Seminar) **February 2016**
I created and gave a lecture remotely at Michigan State University about the experiment described in **February 2016**
Dilley and Heffner (2013) and my experience as an undergraduate researcher.

Linear mixed effects modeling, CSD 990 (Independent Study)

I worked through a set of materials posted online about linear mixed-effects models with a graduate student and faculty member at Michigan State University, with me (as the most proficient member in the group at using such models) generally leading the discussion. These sessions occurred roughly biweekly for about three months.

Spring 2014

INTERNAL

Consonants, SLHS 3247 (Introduction to Phonetic Principles)

I adapted previous materials to describe consonants.

October 2019

Biology of Stuttering, SLHS 5335 (Fluency)

I explored the genetics and neurobiology of stuttering.

October 2018

Prosody, SLHS 3247 (Introduction to Phonetic Principles)

I adapted previous materials to talk about prosody to a clinically-minded population.

April 2018

Acoustic phonetics, two class sessions, HESP 403 (Introduction to Phonetic Science)

I used previous materials to give two lectures about acoustic phonetics to undergraduates at UMD.

November 2015

Category learning, two class sessions, PSYC 409 (Topics in Neuroscience)

I created and gave lectures across two classes related to my research. The first lecture was a facilitated discussion of a previous paper; the second related specifically to my category learning experiments.

September 2015

Artificial language training, LING 620 (Phonology)

I created and led a discussion about artificial language experiments regarding phonological opacity.

October 2014

Word segmentation, HESP 300 (Psycholinguistics)

I created and gave a lecture about word segmentation to a group of undergraduates.

September 2013

PROFESSIONAL SERVICE

OUTREACH

Co-Director

UConn Living Lab, University of Connecticut & Connecticut Science Center

05/2018 – 07/2020

Member ('12-present), Chair ('13-'15)

NACS Outreach Committee, University of Maryland, College Park

10/2012 – 05/2017

Member ('13-'15), Co-Chair ('14-'15), Emeritus Member ('15-'17)

Language Science Outreach Committee, University of Maryland, College Park

07/2013 – 05/2017

ORGANIZATIONAL

Organizer, Administrator

CDS Participants in Research (CPR) Participant Pool, University at Buffalo

10/2020 – present

Member

UConn KIDS (Kids in Developmental Science) Steering Committee, University of Connecticut

01/2018 – 04/2020

Affiliate

Connecticut Institute for the Brain and Cognitive Sciences (IBACS), University of Connecticut

08/2017 – 07/2020

Member ('14-'17) NACS Student Grant Review Committee, University of Maryland, College Park	12/2014 – 05/2017
Representative of Outreach Committee NACS Student Representative Committee, University of Maryland, College Park	09/2014 – 05/2015
Co-Representative of Outreach Committee Language Science Center Student Executive Committee, University of Maryland, College Park	10/2014 – 05/2015
Student Representative Linguistics Graduate Student Association, University of Maryland, College Park	09/2013 – 11/2016
Member NACS-Fest (Program Recruitment Weekend) Committee, University of Maryland, College Park	10/2012 – 02/2015
Member Language Science/NACS Maryland Day Committees, University of Maryland, College Park	11/2012 – 05/2014
Founder, President q Undergraduate Association for Linguistics at Michigan State (qUALMS), Michigan State University	01/2010 – 04/2012
CONFERENCE	
Member ('12-'14), Chair ('13-'14) Organization Committee, MayFest workshop, University of Maryland, College Park	09/2012 – 05/2014
Chair Great Lakes Expo for Experimental and Formal Undergraduate Linguistics (GLEEFUL), Michigan State University	09/2010 – 04/2012
Chair ('10), Vice Chair ('11, '12) Michigan State Undergraduate Linguistics Conference (MSULC), Michigan State University	01/2010 – 04/2012