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124 Cary Hall, South Campus, Buffalo, NY 14214

## EDUCATION AND TRAINING

<b>Assistant Professor</b> Home: Department of Communicative Disorders and Sciences, University at Buffalo, Buffalo, NY Affiliated: Department of Psychology, University at Buffalo, Buffalo, NY	<b>09/2020 – present</b>
<b>Research Associate</b> Buffalo Museum of Science, Buffalo, NY	<b>08/2022 – present</b>
<b>Assistant Research Professor</b> Department of Communicative Disorders and Sciences, University at Buffalo, Buffalo, NY	<b>10/2019 – 08/2020</b>
<b>Postdoctoral Fellow</b> Department of Speech, Language, and Hearing Sciences, University of Connecticut, Storrs, CT <b>Advisor:</b> Emily Myers (Speech, Language, and Hearing Sciences; Psychological Science)	<b>08/2017 – 07/2020</b>
<b>PhD, Neuroscience and Cognitive Science</b> <b>MS, Neuroscience and Cognitive Science</b> University of Maryland, College Park, MD <b>Advisors:</b> Bill Idsardi (Linguistics); Rochelle Newman (Hearing and Speech Sciences) <b>Other Committee Members:</b> Ellen Lau (Linguistics); Bob Slevc (Psychology); Catherine Carr (Biology, Dean’s Representative) <b>Dissertation Title:</b> “Language Science Meets Cognitive Science: Categorization and Adaptation”	<b>05/2017</b> <b>05/2015</b>
<b>Visiting Scholar</b> The Ohio State University, Columbus, OH	<b>05/2016 – 07/2016</b>
<b>BA (Linguistics) and BS (Psychology), With High Honors</b> Michigan State University, East Lansing, MI <b>Thesis Advisors:</b> Karthik Durvasula (Linguistics); Laura Dilley, Devin McAuley (Psychology, Honors) <b>Thesis Titles:</b> “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)	<b>05/2012</b>

## GRANT FUNDING

### EXTERNAL

<b>ASHFoundation New Investigators Research Grant;</b> ASHFoundation; \$10,000 “Speech perception in Parkinson’s Disease: Loudness and rate”	<b>01/2022 – 06/2023</b>
<b>Hunt Postdoctoral Research Fellowship;</b> Acoustical Society; \$60,000 “Speech perceptual learning in Parkinson’s Disease”	<b>08/2019 – 12/2021</b>
<b>SBE Postdoctoral Research Fellowship;</b> NSF SMA 1714858; \$138,000 “Identifying a common mechanism for phonetic learning and phonetic adaptation”	<b>08/2017 – 07/2019</b>
<b>Doctoral Dissertation Research Improvement Award;</b> NSF BCS 1650791; \$17,617 “Doctoral Dissertation Research: Categorization and segmentation inside and outside language”	<b>03/2017 – 03/2019</b>

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 Park09/2015  
07/2016Graduate 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.**, Myers, E. B., & Gracco, V. L. (2022). Impaired perceptual phonetic plasticity in Parkinson's Disease. *Journal of the Acoustical Society of America*, 152(1): 511-523.
- 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

- Mechtenberg, H., **Heffner, C. C.**, Myers, E. B., & Guediche, S. (submitted). The cerebellum is sensitive to the lexical properties of words during spoken language comprehension.
- Crinnion, A. M., **Heffner, C. C.**, & Myers, E. B. (submitted). Individual differences in the use of top-down versus bottom-up cues to resolve phonetic ambiguity.

## IN PREPARATION

- Heffner, C. C.**, Idsardi, W. J., & Newman, R. S. (in prep). German-speaking zombies in the museum: Incidental learning of phonetic categories.
- Heffner, C. C.**, Al Thowaini, B. M., & Rytting, C. A. (in prep). Arabic consonant perception depends on the relative speech rate of the distal context.
- Heffner, C. C.** (in prep). Near and far transfer across category structures in non-native phonetic category learning.

## CONFERENCE PRESENTATIONS

## RESEARCH-FOCUSED

- Crutcher, J., **Heffner, C. C.**, & Eigsti, I.-M. (2023, May). *Profiles of autistic adults with a significant early interest in reading*. Poster to be presented at the International Society for Autism Research (INSAR) Annual Meeting, Stockholm, Sweden.
- Hopper, A., & **Heffner, C. C.** (2023, May). *Phonetic learning and vocabulary knowledge in adolescents*. Poster presented at the one-hundred-and-eighty-fourth meeting of the Acoustical Society of America (ASA), Chicago, IL.
- Heffner, C. C.**, Tjaden, K., & Mercado, E. M. (2022, December). *Loudness and rate perception in Parkinson's disease*. Poster presented at the one-hundred-and-eighty-third meeting of the Acoustical Society of America (ASA), Nashville, TN.
- Mechtenberg, H., **Heffner, C. C.**, Myers, E. B., & Guediche, S. (2022, October). *Cerebellar role in lexical processing during continuous speech perception*. Poster presented at the fourteenth annual meeting of the Society for the Neurobiology of Language, Philadelphia, PA.
- Heffner, C. C.** (2022, May). *Distal context rate effects not attenuated by attention*. Poster presented at the one-hundred-and-eighty-second meeting of the Acoustical Society of America (ASA), Denver, CO.
- 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

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| <b>Instructor</b> , CDS 199 (Animal Communication and Human Language)<br>I created a first-year seminar, open to all UB students regardless of major, from scratch.  | <b>Fall 2021</b><br><b>Fall 2022</b>                           |
| <b>Instructor</b> , CDS 389 (General and Speech Acoustics)<br>I taught a required course in the BA program using an online modality (S21) then in-person (S22).  | <b>Spring 2021</b><br><b>Spring 2022</b><br><b>Spring 2023</b> |
| <b>Instructor</b> , CDS 428/528 (Neural Basis of Communication)<br>I overhauled and taught a required course in the MA and AuD programs using an online modality (F20) and then to an in-person modality (F21).  | <b>Fall 2020</b><br><b>Fall 2021</b><br><b>Fall 2022</b>       |
| <b>Co-Instructor</b> , LING 499L (Biology of Language)<br>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.       | <b>Spring 2017</b>   |
| <b>Instructor</b> , LING 449E (Seminar: Biology of Language)<br>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. | <b>Fall 2015</b>   |
| <b>TA</b> , LING 322 (Phonology II)<br>I graded, held office hours, and gave one 75-minute lecture for a class of about 12 students.   | <b>Spring 2015</b>   |

## PROFESSIONAL SERVICE

## OUTREACH

- |                    |                          |
|--------------------|--------------------------|
| <b>Co-Director</b> | <b>05/2018 – 07/2020</b> |
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UConn Living Lab, University of Connecticut & Connecticut Science Center

**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**

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

CONFERENCE

**Member ('12-'14), Chair ('13-'14)**

Organization Committee, MayFest workshop, University of Maryland, College Park

09/2012 – 05/2014