

Colin Wilson
Curriculum Vitae (01/2022)

ADDRESS

Department of Cognitive Science, Johns Hopkins University
Room 247 Krieger Hall
3400 North Charles Street
Baltimore, MD 21218
email: colin.wilson@jhu.edu
github: [github: https://github.com/colincwilson](https://github.com/colincwilson)
personal webpage: <https://colincwilson.github.io>
department webpage: <https://cogsci.jhu.edu/directory/colin-wilson>

EDUCATION

1995–2000	Ph.D., Department of Cognitive Science, Johns Hopkins University <i>Dissertation:</i> “Targeted constraints: An approach to contextual neutralization in Optimality Theory.” (chair: Luigi Burzio) <i>Research interests:</i> Theoretical, experimental, and computational phonetics / phonology / morphology, cross-language speech perception and production, computational cognitive science
1991–1995	B.A. with Honors in Linguistics, University of Colorado, Boulder, CO

ACADEMIC EMPLOYMENT

2019 – present	Professor, Department of Cognitive Science, Johns Hopkins University
2008 – 2019	Associate Professor, Department of Cognitive Science, Johns Hopkins University
2007 – 2008	Visiting Assistant Professor, Department of Cognitive Science, Johns Hopkins University Associate Professor, Department of Linguistics, UCLA
2000 – 2007	Assistant Professor, Department of Linguistics, UCLA

Undergraduate courses

Phonology I (050.325/625): Spring 2008, Spring 2010 – 2012, 2016 – 2017, 2019, 2021

Bayesian Inference (050.371/671): Spring 2013 – 2014, 2018, 2020

Speech & Voice (050.135): Fall 2021

Cognition (050.101): Fall 2009 – 2013, Fall 2015, Fall 2016 (with Soojin Park)
Language & Mind (050.102): Fall 2017 – 2019

Graduate courses

Research Seminar in Phonology (050.825) or Research Seminar in Formal
Approaches to Cognition (050.825): alternating semesters

External teaching / workshops / tutorials

Computational Morphophonology (4-week course, with Eric Baković), Linguistic
Society of America (LSA) 2019 Summer Institute, June 24 – July 19

Higher-order structure in speech variability: phonetic / phonological covariation and
talker adaptation (satellite event co-organized with Meghan Clayards), 15th
Laboratory Phonology Conference (LabPhon 15), Ithaca, July 17, 2016

Tutorial on Maximum Entropy Models, Annual Meeting on Phonology, MIT,
September 19, 2014

Analytic Bias in Phonology (4-week course, with Donca Steriade), Linguistic Society
of America (LSA) 2007 Summer Institute, July 5 – 27, 2007

Introduction to Phonology (4 class sessions), EALing (Fall School in Linguistics),
Département d'études cognitives, École Normale Supérieure, Paris, 2003

MANUSCRIPTS

Wilson, C. Identifiability, log-linear models, and Observed/Expected. Manuscript in
preparation.

Wilson, C. Learning novel infixation patterns from limited input. Manuscript in preparation.

Wilson, C. Relating affix form and position in interpretable neural network models of
morphology. Manuscript in preparation.

Landau, B., Davis, E., Gürcanlı, Ö., Wilson, C. How does English encode 'tight' vs. 'loose-
fit' motion events? It's complicated. Submitted to *Cognition*.

Srinivas, S., Landau, B., Wilson, C. Speaker adaptation to listeners who have a semantic
knowledge gap. PsyArXiv

JOURNAL PUBLICATIONS

accepted Chodroff, E., Wilson, C. Uniformity in phonetic realization: Evidence
from sibilant place of articulation in American English. *Language*.

2020 Liu, Y.-F., Kim, J., Wilson, C., Bedny, M. Computer code comprehension
shares neural resources with formal logical inference in the fronto-parietal
network. *eLife* 2020;9:e59340. doi:10.7554/eLife.59340

- 2019 Chodroff, E., Wilson, C. Acoustic-phonetic and auditory mechanisms of adaptation in the perception of sibilant fricatives. *Attention, Perception, & Psychophysics*, 82, 2027-2048. doi:10.3758/s13414-019-01894-2
- Chodroff, E., Golden, A.*, Wilson, C. Covariation of stop voice onset time across languages: evidence for a universal constraint on phonetic realization. *Journal of the Acoustical Society of America*, 145(1), EL109-EL115. (*undergraduate co-author) doi:10.1121/1.5088035
- Open Science Framework project with supporting typological data from 100+ languages, <https://osf.io/ry3en/>
- 2018 Chodroff, E., Wilson, C. Predictability of stop consonant phonetics across talkers: between-category and within-category dependencies among cues for place and voice. In J. Shaw, S. Kawahara (eds.), *The Role of Predictability in Shaping Human Language Sound Patterns*, special issue of *Linguistics Vanguard*, 20170044. doi:10.1515/lingvan-2018-0047
- Wilson, C., Gallagher, G. Accidental gaps and surface-based phonotactic learning: a case study of South Bolivian Quechua. *Linguistic Inquiry*, 49(3), 610-623. doi:10.1162/ling_a_00285
- 2017 Chodroff, E., Wilson, C. Structure in talker-specific phonetic realization: Covariation of stop consonant VOT in American English. *Journal of Phonetics*, 61, 30-47. doi:10.1016/j.wocn.2017.01.001
- 2016 Davidson, L., Wilson, C. Processing nonnative consonant clusters in the classroom: perception and production of phonetic detail. *Second Language Research*, 32, 471-502. doi:10.1177/0267658316637899
- Johannes, K., Wilson, C., Landau, L. The importance of lexical verbs in the acquisition of spatial prepositions: The case of *in* and *on*. *Cognition*, 157, 174-189. doi:10.1016/j.cognition.2016.08.022
- Wiley, R., Wilson, C., Rapp, B. The effects of alphabet and expertise on letter perception. *Journal of Experimental Psychology: Human Perception and Performance*, 42(8), 1186-1203. doi:10.1037/xhp0000213
- 2015 Ferrara, K., Silva, M., Wilson, C., Landau, B. Spatial language and the embedded listener model in parents' input to children. *Cognitive Science*, 40(8), 1-34. doi: 10.1111/cogs.12328
- Davidson, L., Martin, S., Wilson, C. Stabilizing the production of nonnative consonant clusters with acoustic variability. *Journal of the Acoustical Society of America*, 137(2), 856-972. doi:10.1121/1.4906264

- 2014 Wilson, C., Davidson, L., Martin, S. Effects of acoustic-phonetic detail on cross-language speech production. *Journal of Memory and Language*, 77, 1–24. doi:10.1016/j.jml.2014.08.001
- Chodroff, E., Wilson, C. Burst spectrum as a cue for the stop voicing contrast in American English. *Journal of the Acoustical Society of America*, 136(5), 2762–2772. doi:10.1121/1.4896470
- Zhong, S.Z., Ma, Z., Wilson, C., Liu, Y., Flombaum, J.I. Why do people appear not to extrapolate trajectories during object tracking? A computational investigation. *Journal of Vision*, 14(12):12, 1–30. doi:10.1167/14.12.12
- Bae, G.-Y., Olkkonen, M., Allred, S.R., Wilson, C., Flombaum, J.I. Stimulus-specific variability in color working memory with delayed estimation. *Journal of Vision*, 14(4):7, 1–23. doi:10.1167/14.4.7
- 2013 Culbertson, J., Smolensky, P., Wilson, C. Cognitive biases, linguistic universals, and constraint-based grammar learning. *Topics in Cognitive Science*, 5(3), 392–424. doi:10.1111/tops.12027
- 2012 Hayes, B., Wilson, C., Shisko, A. Maxent grammars for the metrics of Shakespeare and Milton, *Language*, 88(4), 691–731. doi: 10.1353/lan.2012.0089. **Best Paper in Language Award (2012)**
• Supporting information, including implementation by CW, available at: <http://www.linguistics.ucla.edu/people/hayes/ShakespeareAndMilton/>
- Berent, I., Wilson, C., Marcus, G.F., Bemis, D.K. On the role of variables in phonology: Remarks on Hayes and Wilson 2008. *Linguistic Inquiry*, 43(1), 97–119. doi:10.1162/LING_a_00075
- 2008 Hayes, B., Wilson, C. A maximum entropy model of phonotactics and phonotactic Learning. *Linguistic Inquiry*, 39(3), 379–440. doi:10.1162/ling.2008.39.3.379
• Implementation by CW and others available at: <https://linguistics.ucla.edu/people/hayes/Phonotactics/#software>
- 2006 Wilson, C., Learning phonology with substantive bias: An experimental and computational study of velar palatalization. *Cognitive Science* 30(5), 945–982. doi:10.1207/s15516709cog0000_89 [Draft version in J. Heinz, A. Martin, K. Pertsova (eds.), *UCLA Working Papers in Linguistics 11: Working Papers in Phonology* 6, pp. 93–134.]
- 2001 Wilson, C. Consonant cluster neutralization and targeted constraints. *Phonology*, 18(1), 147–197.

- Wilson, C., Bidirectional optimization and the theory of anaphora. In G. Legendre, J. Grimshaw, S. Vikner (eds.), *Optimality-Theoretic Syntax*, pp. 465-508. Cambridge, MA: MIT Press.
- Straub, K., Wilson, C., McCollum, C., Badecker, W. Prosodic structure and *wh*-questions. *Journal of Psycholinguistic Research*, 30(4), 379-394.
- 1998 Legendre, G., Wilson, C., Smolensky, P. When is less more? Faithfulness and minimal links in *wh*-chains. In P. Barbosa, D. Fox, P. Hagstrom, M. McGinnis, D. Pesetsky (eds.), *Is the Best Good Enough? Optimality and Competition in Syntax*, pp. 249-289. Cambridge, MA: MIT Press.
- 1995 Legendre, G., Smolensky, P., Homer, K., Raymond, W., Wilson, C. Optimality in *wh*-chains. In Beckman, J., Urbanczyk, S., Walsh, L. *University of Massachusetts Occasional Papers in Linguistics 18: Papers in Optimality Theory*, pp. 607-636. Amherst: GLSA.

CONFERENCE PUBLICATIONS

- to appear Wilson, C. Learning morphology with inductive bias: Evidence from infixation. In *Proceedings of the 46th Annual Boston University Conference on Language Development*.
- Nguyen, A., Wilson, C. The *wh*-phrase should go where? Modeling the acquisition of question variants in English. In *Proceedings of the 46th Annual Boston University Conference on Language Development*.
- Haley, C., Wilson, C. Transparent neural network models of morphology and phonology. In *Proceedings of the Annual Meeting on Phonology*.
- 2021 Wilson, C., Li, J.S.Y. Were we there already? Applying Minimal Generalization to the SIGMORPHON-UniMorph Shared Task on Cognitively Plausible Morphological Inflection. In *Proceedings of the 18th SIGMORPHON Workshop on Computational Research in Phonetics, Phonology, and Morphology*, pp. 283-291. Association for Computational Linguistics.
- Top-performing entry on wug-test shared task. System implementation available at: <https://github.com/colincwilson/mingen>
- Wilson, C. Static Harmonic Grammar: Constraint conflict without candidate comparison. In R. Soo, U.Y. Chow, S. Nederveen (eds.), *Proceedings of the 38th West Coast Conference on Formal Linguistics*, pp. 461-471. Somerville, MA: Cascadilla Proceedings Project.

- Haley, C., Wilson, C. Deep neural networks easily learn unnatural infixation and reduplication patterns. To appear in *Proceedings of the Society for Computation in Linguistics*: Vol. 4.
- 2018 Wilson, C. Modeling morphological affixation with interpretable recurrent networks: Sequential rebinding controlled by hierarchical attention. In C. Kalish, M. Rau, J. Zhu, T. Rogers (eds.), *Proceedings of the 40th Annual Meeting of the Cognitive Science Society*, pp. 2693-2698. Austin, TX: Cognitive Science Society.
- 2017 Young, M., Wilson, C. Markedness effects in visual processing of nonnative onset clusters. In A. Kaplan, A. Kaplan, M.K. McCarvel, E.J. Rubin (eds.), *Proceedings of the 34th West Coast Conference on Formal Linguistics*, pp. 582-589. Somerville, MA: Cascadilla Proceedings Project.
- 2015 Wilson, C., Davidson, L. Acoustic characteristics of open transition in nonnative consonant cluster production. In The Scottish Consortium for ICPhS 2015 (Ed.), *Proceedings of the 18th International Congress of Phonetic Sciences*. Glasgow, UK: the University of Glasgow. ISBN 978-0-85261-941-4.
- Chodroff, E., Godfrey, J., Khudanpur, S., Wilson, C. Structured variability in acoustic realization: a corpus study of voicing onset time in American English stops. In The Scottish Consortium for ICPhS 2015 (Ed.), *Proceedings of the 18th International Congress of Phonetic Sciences*. Glasgow, UK: the University of Glasgow. ISBN 978-0-85261-941-4.
- 2013 Kirov, C., Wilson, C. Bayesian speech production: evidence from latency and hyperarticulation. In M. Knauff, M. Pauen, N. Sebanz, I. Wachsmuth (eds.), *Proceedings of the 35th Annual Meeting of the Cognitive Science Society*, pp. 788-793. Austin, TX: Cognitive Science Society.
- Culbertson, J., Wilson, C. Artificial grammar learning of shape-based noun classification. In M. Knauff, M. Pauen, N. Sebanz, I. Wachsmuth (eds.), *Proceedings of the 35th Annual Meeting of the Cognitive Science Society*, pp. 2118–2123. Austin, TX: Cognitive Science Society.
- 2012 Kirov, C., Wilson, C. The specificity of online variation in speech production. In N. Miyake, D. Peebles, R. P. Cooper (eds.), *Proceedings of the 34th Annual Meeting of the Cognitive Science Society*, pp. 587-592. Austin, TX: Cognitive Science Society.
- Wilson, C. A targeted spreading imperative for Nasal Place Assimilation. In Y. Fainleib, N. LaCara, Y. Park (eds.), *Proceedings of the 41st Annual Meeting of the North East Linguistic Society*, GLSA Publications.

- 2009 Wilson, C., Davidson, L. Bayesian analysis of non-native cluster production. In S. Kan, C. Moore-Cantwell, R. Staubs (eds.), *Proceedings of the 40th Annual Meeting of the North East Linguistic Society*, pp. 265-278. GLSA Publications.
- 2006 Riggle, J., Wilson, C. Local optionality. In L. Bateman, C. Ussery (eds.), *Proceedings of the 35th Annual Meeting of the North East Linguistic Society*, vol. 2. Charleston, SC: BookSurge.
- 2003 Wilson, C. Experimental investigation of phonological naturalness. In G. Garding, M. Tsujimura (eds.), *Proceedings of the 22nd West Coast Conference on Formal Linguistics*, pp. 533-546. Somerville, MA: Cascadilla Press.
- 2000 Baković, E., Wilson, C. Transparency, strict locality, and targeted constraints. In R. Billerey, B.D. Lillehaugen (eds.), *Proceedings of the 19th West Coast Conference on Formal Linguistics*, pp. 43-56. Somerville, MA: Cascadilla Press.

INVITED TALKS

- 2021 Transparent neural networks for morphological realization and phonology, UCSD, November, 10.
- 2020 Learning reduplication with interpretable deep networks. Talk presented at the session on Reduplication-Phonology Interaction, 94th Annual Meeting of the Linguistic Society of America, New Orleans, January 2-5.
- 2018 Learning morphological mappings with interpretable neural networks, UCLA, October 26 and Stony Brook University, September 21.
- 2017 Learning phonological classification, Berkeley, November 27.
- A restriction on laryngeal realization within and across languages, Berkeley Phorum, November 27 (joint research with Eleanor Chodroff).
- Constrained temporal variation in speech, Microsoft Research, August 15.
- 2016 Memory for phonological structure. Plenary talk at the 2016 Annual Meeting on Phonology, USC, October 21–23.
- Beyond bigrams for surface-based phonotactic models: a case study of South Bolivian Quechua. Invited talk at the 14th SIGMORPHON Workshop on Computational Research in Phonetics, Phonology, and Morphology (co-located with ACL 2016), Berlin, Germany, August 11

- (joint research with Gillian Gallagher). Also presented at the 2016 Annual Meeting on Phonology (AMP), USC, October 21-23.
- 2015 An articulatory-phonetic account of vowel epenthesis into nonnative clusters, Harvard, November 13 (joint research with Lisa Davidson).
- 2013 Phonetic and phonological factors in coronal-to-dorsal perceptual assimilation, New York University, April 18 (joint research with Eleanor Chodroff).
- 2012 Acoustic-phonetic predictors of non-native consonant cluster modification, Stony Brook University, November 16 (joint research with Lisa Davidson).
- 2011 Bayesian inference for constraint-based phonology, University of Massachusetts, Amherst, December 2.
- Bayesian modeling of cross-language speech processing, University of Pennsylvania, March 24.
- 2010 Acoustic-phonetic predictors of non-native consonant cluster modification, University of Pennsylvania, November 17 (joint research with Lisa Davidson).
- Bayesian modeling of cross-linguistic speech processing, University of Delaware, September 3.
- 2008 Tutorial and commentary for session “How the Cognitive System Shapes Phonology”, Hopkins Workshop on Language 4, Johns Hopkins University, October 12–14.
- 2007 Learning constraint rankings in the presence of noise, University of Chicago, April 26.
- Artificial grammar and implicational universals, Workshop: Towards an Artificial Grammar Learning Paradigm in Phonology, Annual Meeting of the Linguistic Society of America (LSA), Anaheim, January 6.
- 2006 Unbounded spreading is myopic, Workshop on Current Perspectives in Phonology, University of Indiana, Bloomington, June 23.
- Ranking as recursive choice, MIT, December 1.
- 2005 Similarity and bias in phonological learning, Rumelhart Prize Symposium, XXVII Annual Conference of the Cognitive Science Society, Stresa, Italy, July 22.

- Asymmetric generalization of velar palatalization: Experimental evidence for substance in phonology, NYU, October 25, 2004 and UC Santa Barbara, January 20.
- Localizing constraint violation: Theoretical consequences of myopic spreading, Hopkins Workshop on Language 3, Johns Hopkins University, January 14.
- 2003 Experimental Phonology and Phonological Naturalness: Nasal Assimilation and Dissimilation vs. Random Alternations, UC Santa Cruz, May 2, and Johns Hopkins University, April 3.
- Unbounded Spreading in OT (or, Unbounded Spreading is Local Spreading Iterated Unboundedly), Southwest Optimality Theory Workshop, University of Arizona, Tucson, April 24-26.
- Analytic Bias in Artificial Phonology Learning: Consonant Harmony vs. Random Alternation, Workshop on Markedness and the Lexicon, MIT, January 25.
- 2002 Unbounded Spreading is Local Spreading Iterated Unboundedly, USC, May 7.
- 2001 The Theory of Targeted Constraints: Typology, Opacity, and Learnability, UC Santa Cruz, December 7.
- The Targeted Constraint Approach to Phonological Opacity, UC Irvine, June 8.
- Learning Phonotactic Distributions with Targeted Constraints, UCSD, May 18, and Southwest Optimality Theory Workshop, USC, April 22.
- 2000 Targeted Constraints, Contextual Neutralization and Phonological Opacity, UCLA, February 8.
- Recoverability, Violability and Ineffability in Syntax and Phonology (presented by Paul Smolensky), Conference on the Optimization of Interpretation, UiL OTS, Utrecht University, January 5.
- 1999 Consonant Cluster Neutralization and Targeted Constraint, Workshop on the Lexicon in Phonetics and Phonology, University of Alberta, June 13.
- 1998 Two Arguments for Bidirectional Optimization (November 13) and two invited lectures on bidirectional optimization and anaphora, Workshop on Optimality Theory Syntax, Universität Stuttgart, November 15-16.

- 1997 Absolute Harmony, Relativized Minimality, and Blocking, Hopkins Optimality Theory Workshop / University of Maryland Mayfest, Johns Hopkins University, May 9.
- 1996 Bidirectional Optimization for the Binding Theory, Workshop on Optimality Theory and Cognition, Stanford University, December 7.
- 1995 When is Less More? Faithfulness and Minimal Links in *wh*-Chains (with Géraldine Legendre and Paul Smolensky), Is the Best Good Enough? Workshop on Optimality in Syntax, MIT, May 19.

REFEREED CONFERENCE TALKS / POSTERS

- 2022 Nguyen, A., Wilson, C. Modeling the acquisition of question variants in English. Talk presented at the 94th Annual Meeting of the Linguistic Society of America, Washington, D.C., January 6-9.
- 2021 Nguyen, A., Wilson, C. Learning the surface structure of *wh*-questions in English with a non-parametric Bayesian model. Poster presented at the Society for Computation in Linguistics (SCiL), February 15-19.
- 2020 Breiss, C., Wilson, C. Extending adaptor grammars to learn phonological alternations. Poster presented at the Society for Computation in Linguistics (SCiL), New Orleans, January 2-5.
- 2019 Wilson, C. Learning nonconcatenative morphology with interpretable neural networks. Talk presented at the 93rd Annual Meeting of the Linguistic Society of America, New York, January 3-6.
- Wilson, C. Re(current) reduplication. Talk presented at the Society for Computation in Linguistics (SCiL), New York, January 3-6.
- 2018 Chodroff, E., Wilson, C. Covariation of voice onset time: a universal aspect of phonetic realization. Talk presented at the 92nd Annual Meeting of the Linguistic Society of America, Salt Lake City, UT, January 4-7.
- 2017 Wilson, C., Chodroff, E. Uniformity of inherent vowel duration across speakers of American English. Poster presented at the 174th Meeting of the Acoustical Society of America, New Orleans, December 4-8.
- Chodroff, E., Wilson, C. Delayed effects of speech and non-speech stimuli on sibilant categorization. Poster presented at the 174th Meeting of the Acoustical Society of America, New Orleans, December 4-8.

Miani, O., Wilson, C. The formative years: vowel change in a longitudinal study of LDS talks. Talk presented at New Ways of Analyzing Variation 46 (NWAY 46), Madison, November 2-5.

Wilson, C. Learning constraints for morphophonological classification. Talk presented at the Annual Meeting on Phonology (AMP), New York City, September 15-17.

Chodroff, E., Wilson, C. Structured variation in the phonetics of English and Czech sibilant fricatives. Talk presented at the 91st Annual Meeting of the Linguistic Society of America (LSA), Austin, January 5-8.

2016

Chodroff, E., Wilson, C. Auditory and acoustic-phonetic mechanisms of adaptation in the perception of sibilant fricatives. Poster presented at the 5th Joint Meeting of the Acoustical Society of America (ASA) and the Acoustical Society of Japan, Honolulu, November 28 - December 2.

Wilson, C., Chodroff, E., Nielsen, K. Generalization in VOT imitation: Feature adaptation or acoustic-phonetic covariation? Poster presented at the 5th Joint Meeting of the Acoustical Society of America (ASA) and the Acoustical Society of Japan, Honolulu, November 28 - December 2.

Young, M., Wilson, C. Biases in matching and recall of visual wordforms: evidence from initial consonant clusters. Poster presented at the 38th Annual Meeting of the Cognitive Science Society, Philadelphia, August 11-13.

Wilson, C., Davidson, L. Epenthesis into nonnative consonant clusters: phonetic factors eclipse gradient phonotactics. Talk presented at the 15th Conference on Laboratory Phonology (LabPhon 15), Ithaca, July 13-17.

Chodroff, E., Golden, A., Wilson, C. An empirical and computational study of generalized adaptation to talker-specific VOT. Poster presented at the 15th Conference on Laboratory Phonology (LabPhon 15), Ithaca, July 13-17.

Wilson, C., Davidson, L. Sonority projection effects: extra syllables without epenthetic vowels. Talk presented at the CUNY Phonology Forum Conference on Sonority, January 14-15.

Chodroff, C., Wilson, C. Covariation of stop consonant acoustics: corpus evidence and implications for talker adaptation. Talk presented at the Annual Meeting of the Linguistic Society of America (LSA), Washington, D.C., January 7-10.

- Grosu, I., Wilson, C. Experimental evidence for stem ending and size factors in Romanian plural formation. Poster presented at the Annual Meeting of the Linguistic Society of America (LSA), Washington, D.C., January 7-10.
- 2015 Wilson, C., Davidson, L. Voicing asymmetries in vowel insertion into nonnative clusters: perception, phonology, or articulation? Poster presented at the Annual Meeting on Phonology (AMP), Vancouver, October 9-11.
- Chodroff, E., Wilson, C. Talker variation and systematicity in voice onset time: a corpus study. Poster presented at the 169th Meeting of the Acoustical Society of America (ASA), Pittsburgh, May 18-22.
- Ma, Z., Zhong, S., Wilson, C., Flombaum, J.I. Multiple object tracking explained with neither fixed nor flexible resources. Poster presented at the Vision Sciences Society Annual Meeting (VSS), St. Pete Beach, FL, May 15-20.
- Wilson, C., Chodroff, E. Weighting perceptual cues to stop voice by modeling talker differences. Annual Meeting of the Linguistic Society of America (LSA), Portland, January 8-11.
- 2014 Wilson, C., Davidson, L. Predicting epenthesis in nonnative clusters with a spectral model of schwa. Talk presented at the Annual Meeting on Phonology (AMP), MIT, September 19-21.
- Wilson, C., Scarborough, R. Comparing neighborhood density and phonotactic probability: Evidence from nasal coarticulation. Poster presented at the Annual Meeting on Phonology (AMP, MIT, September 19-21 and the Annual Meeting of the Linguistic Society of America (LSA), Portland, January 8-11, 2015.
- Atkinson, E., Omaki, A., Wilson, C. Gamma function modeling of visual world eye-tracking data. Poster presented at the 20th AMLaP Conference, Edinburgh, September 6.
- Chodroff, E., Wilson, C. Phonetic and phonological factors in coronal-to-dorsal perceptual assimilation. Talk presented at the 14th Conference on Laboratory Phonology (LabPhon 14), Tokyo, July 25-27.
- Davidson, L., Martin, S., Wilson, C. Acoustic variability aids the interpretation of phonetic detail in cross-language speech production. Talk presented at the 14th Conference on Laboratory Phonology (LabPhon 14), Tokyo, July 25-27.

Zhong, S., Ma, Z., Wilson, C., Flombaum, J.I. Kalman filter models of multiple-object tracking within an attentional window. Talk presented at the Vision Sciences Society Annual Meeting, St. Pete Beach, FL, May 16-21, 2014.

Chodroff, E., Wilson, C. An acoustic-phonetic account of phonotactic perceptual assimilation. Poster presented at the 167th Meeting of the Acoustical Society of America (ASA), Providence, May 5-9.

Chodroff, E., Wilson, C. Burst spectrum as a cue to stop consonant voicing: English production and perception results. Talk presented at the 88th Annual Meeting of the Linguistic Society of America (LSA), Minneapolis, January 2-5.

Culbertson, J., Wilson, C. Rapid learning of semantic noun classification in artificial grammar. Talk presented at the 88th Annual Meeting of the Linguistic Society of America (LSA), Minneapolis, January 2-5.

2013

Johannes, K., Wilson, C., Landau, B. Lexical verb knowledge in the development of complex spatial language. Poster presented at the 2013 Psychonomic Society Annual Meeting, Toronto, November 14-17.

Menendez, J., Bae, G.-Y., Wilson, C., Flombaum, J. A computational basis for configuration effects in spatial working memory. Poster presented at the 21st Annual Conference of Object Perception, Attention, & Memory, Toronto, November 14.

Ferrara, K., Wilson, C., Kelliher, K., Silva, M., Landau, B. Do parents adapt descriptions of spatial relationships to child knowledge? Poster presented at the 35th Annual Meeting of the Cognitive Science Society, Berlin, July 31-August 3.

Johannes, K., Landau, B., Wilson, C. Modeling spatial language acquisition as a function of lexical verb development. Poster presented at the 35th Annual Meeting of the Cognitive Science Society, Berlin, July 31-August 3.

Martin, S., Davidson, L., Wilson, C. Variability attenuates sensitivity to acoustic detail in cross-language speech production. Poster presented at the Meeting of the Acoustical Society of America (ASA), Montreal, June 2-7.

Bae, G.-Y., Wilson, C., Flombaum, J. Variability in color working memory precision reflects inherent stimulus properties. Talk presented at the 14th Annual Meeting of the Vision Sciences Society (VSS), Naples, May 10-15.

Flombaum, J., Zhong, S-h., Ma., Z., Wilson, C., Liu, Y. What is the marginal advantage of extrapolation during multiple object tracking? Insights from a Kalman filter model. Talk presented at the 14th Annual Meeting of the Vision Sciences Society (VSS), Naples, May 10-15.

Johannes, K., Wilson, C., Landau, B. Uncovering complex mappings in the acquisition of spatial language. Poster presented at the Biennial Meeting of the Society for Research on Child Development (SRCD), Seattle, April 18-20.

Ferrara, K., Kelliher, K., Silva, M., Wilson, C., Landau, B. Do parents adapt descriptions of spatial relationships to child knowledge? Poster presented at the Biennial Meeting of the Society for Research on Child Development (SRCD), Seattle, April 18-20.

2012 Johannes, K., Wilson, C., Landau, B. Modeling verb choice in spatial language: Refining the learning problem for English. Talk presented at the Boston University Conference on Language Development 37 (BUCLD), November 2-4.

Kirov, C., Wilson, C. How phonological context affects phonetic realization. Poster presented at the 13th Conference on Laboratory Phonology (LabPhon 13), Stuttgart, July 27-29.

Davidson, L., Wilson, C., Martin, S. Phonological bias, phonetic likelihood: a Bayesian model of non-native cluster production errors. Poster presented at the 13th Conference on Laboratory Phonology (LabPhon 13), Stuttgart, July 27-29.

Wilson, C., Davidson, L., Martin S. Bayesian interaction of phonetics and phonotactics in cluster production. Talk presented at the 86th Annual Meeting of the Linguistic Society of America (LSA), Portland, January 5.

Kirov, C., Wilson, C. Specificity of online variation in speech production. Talk presented at the 86th Annual Meeting of the Linguistic Society of America (LSA), Portland, January 6.

2011 Wolmetz, M., Wilson, C., Rapp, B. How we store the sounds of words: Testing the neurocognitive predictions of abstractionist and exemplar theories of spoken word recognition. Neurobiology of Language Conference, Annapolis, November 10.

McCloskey, M., Fischer-Baum, S., Wilson, C., Mathis, D., Glasser, A., Ghodasara, S. Form and functions of orthotactic knowledge. Talk presented at the Psychonomic Society, Seattle, November 4.

- Fischer-Baum, S., McCloskey, M., Mathis, D., Wilson, C. Letter position representations in reading: evidence from acquired dyslexia. Academy of Aphasia, October 17.
- 2010 Hayes, B., Shisko, A., Wilson, C. Maxent grammars for the metrics of Shakespeare and Milton. Talk presented at the 84th Annual Meeting of the Linguistic Society of America (LSA), Chicago, January 8.
- Goldberg, A.M., Wilson, C., Miozzo, M., Rapp, B. Experimental evidence for gradient heteromorphemic phonotactic restrictions. 84th Annual Meeting of the Linguistic Society of America (LSA), Chicago, January 8.
- 2008 Wolmetz, M., Wilson, C., Smolensky, P. Replicator dynamics of speech perception and categorization. Poster presented at the 11th Conference on Laboratory Phonology (LabPhon 11), Wellington, New Zealand, June 30 - July 2.
- 2007 Hayes, B., Wilson, C. A maximum entropy model of phonotactics and phonotactic learning. Talk presented at the Annual Meeting of the Linguistic Society of America (LSA), Anaheim, January 4-7.
- Wilson, C. Artificial grammar and implicational universals. Talk presented at the Annual Meeting of the Linguistic Society of America (LSA), Anaheim, January 4-7.
- 2005 Riggle, J., Wilson, C. Local optionality. Poster presented at the North East Linguistic Society (NELS) 35, Storrs, Connecticut, October 22.
- 2004 Baković, E., Wilson, C. Laryngeal markedness and the typology of repair. Talk presented at the Annual Meeting of the Linguistic Society of America (LSA), Boston, January 9.
- 2003 Wilson, C. Experimental phonology and phonological naturalness: nasal assimilation and dissimilation vs. random alternations. Talk presented at the West Coast Conference on Formal Linguistics (WCCFL) 21, UCSD, April 3.
- 2001 Wilson, C., Phonotactic learning with targeted constraints. Poster presented at the North East Linguistic Society (NELS) 32, CUNY Graduate Center and NYU, October 21.
- 2000 Baković, E., Wilson, C. Transparency, strict locality, and targeted constraints. Talk presented at the West Coast Conference on Formal Linguistics (WCCFL) 19, UCLA, February 4-6.

- 2000 Wilson, C. Targeted constraints and contextual neutralization in Optimality Theory. Talk presented at the Annual Meeting of the Linguistic Society of America (LSA), Chicago, January 6-9.
- 1999 Wilson, C. Consonant cluster neutralization, harmonic ordering, and targeted constraints. Talk presented at the GLOW Workshop on Phonetics in Phonology, University of Potsdam, April 1.
- Wilson, C. Bidirectional optimization for the binding theory. Poster presented at the North East Linguistic Society (NELS) 32, University of Delaware, October 16-18.
- 1998 Wilson, C., McCollum, C., Straub, K., Badecker, W. Prosodic cues and *wh*-constructions. Poster presented at the 11th Annual CUNY Sentence Processing Conference, Rutgers University, March 19-21.

RESEARCH GRANTS

- 2020 NSF BCS-1941593. Interpretable neural network models of morphological realization. \$273, 415.
- 2013 NSF BCS-1344269: Smolensky, P., P.I.; Legendre, G., Omaki, A., Rawlins, K., Van Durme, B., Wilson, C., co-P.I.s. Gradient Symbolic Computation. Integrated NSF Support Promoting Interdisciplinary Research and Education (INSPIRE) Program (Track 1), 9/15/13 – 2/28/18. \$999,997.
- 2011 NSF BCS-1052784: A Bayesian model of phonetic and phonotactic effects in cross-language speech production, National Science Foundation, 09/01/11–02/28/15, \$163,817.
Collaborative research with Lisa Davidson, NYU.
- 2005 Infant Learning of Natural and Unnatural Phonology (\$3000), UCLA Faculty Grants Program
- 2004 UCLA Career Development Award (1-quarter sabbatical)
- Phonological Naturalness and Artificial Grammar (\$2800), UCLA Faculty Grants Program
- 2003 Phonological Naturalness and Artificial Grammar (\$1500), UCLA Faculty Grants Program
- 2001 Experimental Investigation of Phonological Markedness (\$2,190), UCLA Faculty Grants Program

RESEARCH SOFTWARE

Maximum-entropy phonotactic learner, phonological classifier, phonological feature tool, and PyTorch package for interpretable neural network models of morphophonology, and other software available at <https://github.com/colincwilson>.

Various scripts for calculating phonotactic probability, lexical neighborhood density, and similar lexical statistics. Experimental scripts in Python and HTML/JavaScript.

GRADUATE STUDENTS ADVISED

At JHU

Ph.D.

Jane S.Y. Li (in progress), Angela S. Xu (in progress)

Eleanor Chodroff (2016, currently Postdoctoral fellow, Linguistics, Northwestern University, Lecturer in Phonetics and Phonology, Department of Language and Linguistic Science, University of York as of 4/19)

Christo Kirov (2013, currently Research Engineer at Google, NYC, previously Postdoctoral fellow, Center for Language and Speech Processing, Johns Hopkins University)

M.A.

Mikaela Piedrahita, Ian Coffman, Rachael Richardson, Mackenzie Young

1st/2nd research projects

An Nguyen, Grusha Sai Prasad, Ayushi Pandey, Sadhwi Srinivas (co-advisor), Mackenzie Young, Emily Atkinson, Ian Coffman, Kristen Johannes, Özge Gürcanlı, Deepti Ramadoss

At UCLA

Ph.D. (non-chair member of committee unless otherwise indicated)

Kuniko Nielsen* (2008, co-chair with Pat Keating), Jeffrey Heinz (2007), Andrew Martin (2007), Katya Pertsova (2007), Shabnam Shademan (2007), Greg Kobele (2006), Shigeko Sekine* (2006, co-chair with Nina Hyams), Daniel Albro (2005), Heidi Fleischhacker (2005), Sahyang Kim (2004), Jason Riggie (2004), Alex MacBride (2003)

M.A. (non-chair member of committee unless indicated)

Victoria Thatte* (2007, chair), Sameer Khan (2006), Molly Shilman (2005), Kuniko Nielsen (2004), Katya Pertsova (2004), Jason Riggie (2002), Shabnam Shademan (2002), Rebecca Scarborough (Brown) (2001, co-chair with Patricia Keating)

UNDERGRADUATE STUDENTS ADVISED

At JHU

Coleman Haley, Provost's Undergraduate Research Award (Spring 2020)

Ioana Grosu, Provost's Undergraduate Research Award (AY 2014–2015)

Research assistants (most recent two years)

Jane Brusilovsky, Claire Joyce, Kathryn Gentile, Mrinaal Sehgal, Brody Silva

PROFESSIONAL ASSOCIATIONS/ACTIVITIES

Tenure/pre-tenure reviews for Wellesley College, Haverford College

Editorial Board member for *Natural Language & Linguistic Theory*, 2016 – present

Ad-hoc reviewer for *Cognition*, *Glossa*, *Journal of the Acoustical Society of America*, *Journal of Experimental Psychology: Learning, Memory & Cognition*, *Journal of Linguistics*, *Journal of Phonetics*, *Journal of Memory & Language*, *Laboratory Phonology*, *Language*, *Language Acquisition*, *Language Learning*, *Linguistic Inquiry*, *Morphology*, *Radical* and conferences *Annual Meeting of Phonology*, *CMCL*, *Cognitive Science*, *EACL*, *EMNLP*, *GLOW*, *ICPhS*, *NAACL:HLT*, *NELS*, *LabPhon*, *SCiL*

2003 Revised *Phonology* chapter of Fromkin, Rodman & Hyams 2003, *An Introduction to Language*, 7th ed., Boston, MA: Heinle.

1999 Reviewer for *Optimality-Theoretic Syntax*, ed. Géraldine Legendre, Jane Grimshaw, and Sten Vikner, Cambridge, MA: MIT Press.

1999– present Member of the Linguistic Society of America

UNIVERSITY COMMITTEE SERVICE /AWARDS

2015–present Director of Undergraduate Studies, Department of Cognitive Science
Advisor for Cognitive Science Undergraduate Society (OmegaPsi)

2010–present Linguistics Minor Advisor

Fall 2021 Interim Chair, Department of Cognitive Science

2018–2019 Excellence in Teaching Committee

2017 Undergraduate Faculty Advising Award

2010–2014 Director of Graduate Studies, Department of Cognitive Science

2005–2007 UCLA Committee on Diversity and Equal Opportunity (CODEO, chair Jody Kreiman)

JHU GBOs (chair of committee indicated by *)

- 2021 Aditya Upadhyayula (Psychological & Brain Sciences), Sabrina Mielke* (Computer Science), Winston Wu* (Computer Science)
- 2020 Brian Thompson* (Computer Science), Chu-Cheng Lin (ECE), Huda Khayrallah* (Computer Science)
- 2019 Gali Ellenblum (Cognitive Science)
- 2018 Matthew Maciejewski (ECE), Ryan Cotterell* (Computer Science), Matthew Wiesner (ECE)
- 2017 Dingquan Wang (Cognitive Science), Eleanor Chodroff (Cognitive Science), Marianna Bergamaschi Ganapini* (Philosophy)
- 2016 Joshua Bowen* (Near Eastern Studies), Bonnie Breining (Cognitive Science), Emily Atkinson (Cognitive Science), Zheng Ma (Psychological & Brain Sciences)
- 2015 Teresa Schubert (Cognitive Science)
- 2014 Frank Ferraro (Computer Science), Lisa Hsin (Cognitive Science)
- 2013 Christo Kirov (Cognitive Science)
- 2012 Jeffrey T. Maynes* (Philosophy)
- 2011 Deepti Ramadoss (Cognitive Science), Scott Novotney (Computer Science), Keith Kintzley (ECE)
- 2010 Simon Fischer-Baum (Cognitive Science)
- 2009 Ariel Goldberg (Cognitive Science), Julia Yarmolinskaya (Cognitive Science)
- 2008 Markus Dreyer* (Computer Science), Elliot Drabek* (Computer Science)