

Laura C. Dilley

CONTACT INFORMATION

Bowling Green State University
Department of Communication Disorders
and Department of Psychology
247 Health Center
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EDUCATION

Ph.D., Speech and Hearing Bioscience and Technology October, 2004
Massachusetts Institute of Technology and Harvard University, Cambridge, MA

B.S., Brain and Cognitive Sciences, Minor in Linguistics June, 1997
Massachusetts Institute of Technology, Cambridge, MA

PROFESSIONAL EXPERIENCE

Assistant Professor, Department of Communication Disorders and Department of Psychology 2006-
(dual appointment), Bowling Green State University, Bowling Green, OH

Adjunct Assistant Professor, Department of Psychology, Bowling Green State University, 2005-2006
Bowling Green, OH

Post-Doctoral Research Associate, Department of Psychology, The Ohio State University 2004-2006

Research Assistant and Graduate Fellow, Speech Communication Group, Research 1992-2004
Laboratory of Electronics, MIT, Cambridge, MA

RESEARCH INTERESTS

Processing and representation of intonational and tonal characteristics of speech; word segmentation by infants and adults; voice quality variation; speech rhythm; cognitive representation of phonetic variants; auditory perceptual processing of speech and music.

RESEARCH GRANTS

Current

“Acoustic Characteristics of Speech to Infants.” Role: Principal Investigator. Funding source: Faculty Research Committee Research Incentive Grant, Bowling Green State University, \$11,396, 5/21/07-12/31/07.

Pending

“Development of Attention to Maternal Speech in Infants with Hearing Loss.” Role: Co-Investigator. Other investigators: Dr. Tonya Bergeson-Dana, Indiana University School of Medicine, Dr. Devin McAuley, Bowling Green State University. Funding source: National Institutes of Health (R01), \$2,263,090 (direct), \$675,385 (BGSU subcontract).

ACADEMIC AWARDS AND DISTINCTIONS

National Science Foundation Graduate Fellowship Award (1998-2003)
Visiting Scholar, University of Edinburgh (2003)
Travel Grant, Acoustical Society of America (1997)
National Merit Scholar, MIT (1992-1996)
Burchard Scholar in the Humanities (1995)
FANO Award for Outstanding Undergraduate Research (1993)

ARTICLES IN REFEREED JOURNALS

1. **Dilley, L.**, and Brown, M. (in press). Effects of pitch range variation on f0 extrema in an imitation task. *Journal of Phonetics*.
2. Nazzi, T., **Dilley, L.**, Jusczyk, A.M., Shattuck-Hufnagel, S., and Jusczyk, P.W. (2005) English-learning infants' segmentation of verbs from fluent speech. *Language and Speech*, 48(3), 279-298.
3. **Dilley, L.**, Ladd, D.R., and Schepman, A. (2005) Alignment of L and H in bitonal pitch accents: Testing two hypotheses. *Journal of Phonetics*, 33 (1), 115-119.
4. Doherty, C., West, W., **Dilley, L.**, Shattuck-Hufnagel, S., and Caplan, D. (2004) Question/statement judgments: An fMRI study of intonation processing. *Human Brain Mapping*, 23 (2), 85-98.
5. **Redi, L.** and Shattuck-Hufnagel, S. (2001) Variation in realization of glottalization in normal speakers. *Journal of Phonetics*, 29, 407-429.
6. **Dilley, L.**, Shattuck-Hufnagel, S., and Ostendorf, M. (1996) Glottalization of vowel-initial syllables as a function of prosodic structure. *Journal of Phonetics*, 24, 423-444.

REFEREED CONFERENCE PROCEEDINGS

1. **Dilley, L.**, Breen, M., Bolivar, M., Kraemer, J., and Gibson, E. (2006) A comparison of inter-transcriber reliability for two systems of prosodic annotation: RaP (Rhythm and Pitch) and ToBI (Tones and Break Indices). In *Proceedings of the International Conference on Spoken Language Processing*, Pittsburgh, PA.
2. Cummins, F., Doherty, C., and **Dilley, L.** (2006) Phrase-final pitch discrimination in English. In *Proceedings of Speech Prosody 2006*, Dresden, Germany.
3. **Dilley, L.** On the dual relativity of tone. To appear in *Proceedings of the 41st Meeting of the Chicago Linguistics Society*.
4. Cummins, F., Doherty, C., and **Dilley, L.** (2004) Discrimination of pitch change in speech and non-speech stimuli. In *Proceedings of the 15th Artificial Intelligence and Cognitive Science Conference*, Castlebar, Ireland, 29-38.
5. Shattuck-Hufnagel, S., **Dilley, L.**, Veilleux, N., Brugos, A., and Speer, R. (2004) F0 peaks and valleys aligned with non-prominent syllables can influence perceived prominence in adjacent syllables. In *Proceedings of Speech Prosody 2004*, Nara, Japan.
6. **Redi, L.** (2003) Categorical effects in production of pitch contours in English. In *Proceedings of the 15th International Congress of the Phonetic Sciences*, Barcelona, Spain, p. 2921-2924.
7. Doherty, C., West, W., Evans, C., and **Redi, L.** (2003) The processing of question intonation: An fMRI study. In *Proceedings of the 15th International Congress of Phonetic Sciences*, Barcelona, Spain, p. 1647-1650.
8. **Dilley, L.** and Shattuck-Hufnagel, S. (1999) Effects of repeated intonation patterns on perceived word-level organization. In *Proceedings of the 14th International Congress of Phonetic Sciences*, San Francisco, Vol. I, 1487-1490.
9. **Dilley, L.** and Shattuck-Hufnagel, S. (1998) Ambiguity in prominence perception in spoken utterances of American English. In *Proceedings of the 16th International Congress on Acoustics and 135th Meeting of the Acoustical Society of America*, Seattle, Vol. II, 1237-1238.
10. **Dilley, L.**, and Shattuck-Hufnagel, S. (1995) Variability in glottalization of word onset vowels in American English. In *Proceedings of the 13th International Congress of the Phonetic Sciences*, Stockholm, 4, 586-589.

UNDER REVIEW OR IN PREPARATION

1. **Dilley, L.** and Pitt, M. (in revision). A study of regressive place assimilation in spontaneous speech and its implications for spoken word recognition. *Journal of the Acoustical Society of America*.
2. **Dilley, L.** and McAuley, J.D. (in preparation). Distal prosody in word segmentation and lexical encoding.

PUBLISHED ABSTRACTS

1. **Dilley, L.** and McAuley, J.D. (2006) Beyond metrical stress: Effect of prosodic context on speech segmentation. *Abstracts of the Psychonomic Society*, 11, 108.
2. **Dilley, L.** Pitt, M., and Johnson, K. (2005) Using pronunciation data to constrain models of spoken word recognition. *Abstracts of the Psychonomic Society*, 10, 96.
3. McAuley, J.D., and **Dilley, L.** (2004) Acoustic correlates of perceived rhythm in spoken English. *Journal of the Acoustical Society of America*, 115, 2397.
4. **Dilley, L.** and Brown, M. (2004) Distinct relative F0 levels elicit categorical effects in F0 maximum and minimum alignment. *Journal of the Acoustical Society of America*, 115, 2398.
5. **Redi, L.** (2002) Categorical distinctions based on F0 peak location: Evidence from production studies. *Journal of the Acoustical Society of America*, 112(5), Pt. 2, 2442.
6. **Dilley, L.** and Shattuck-Hufnagel, S. (1998) Ambiguity in prominence perception in spoken utterances of American English. *Journal of the Acoustical Society of America*, 103, 2889.
7. **Dilley, L.** (1997) Some factors influencing duration between syllables judged perceptually isochronous. *Journal of the Acoustical Society of America*, 102(5), Pt. 2, 3205-3206.
8. **Dilley, L.**, and Shattuck-Hufnagel, S. (1996) Rhythm and intonational phrase structure influences on the placement of pitch accents within words in American English utterances. *Journal of the Acoustical Society of America*, 100(4), Pt. 2, 2826.
9. **Dilley, L.**, and Shattuck-Hufnagel, S. (1995) Individual differences in the glottalization of vowel-initial syllables. *Journal of the Acoustical Society of America*, 97(5), Pt. 2, 3418-3419.
10. **Dilley, L.**, Shattuck-Hufnagel, S., and Ostendorf, M. (1994) Prosodic constraints on glottalization of vowel-initial syllables in American English. *Journal of the Acoustical Society of America*, 95(5), Pt. 2, 2978-2979.

OTHER CITATIONS AND MANUSCRIPTS

1. Pitt, M.A., **Dilley, L.**, Johnson, K., Kiesling, S., Raymond, W., Hume E., and Fosler-Lussier, E. (2006) Buckeye Corpus of Conversational Speech (2007; 2nd release) [www.buckeyecorpus.osu.edu] Columbus, OH: Department of Psychology, Ohio State University (Distributor).
2. Pitt, M.A., **Dilley, L.**, Johnson, K., Kiesling, S., Raymond, W., Hume E., and Fosler-Lussier, E. (2006) Buckeye Corpus of Conversational Speech (2006; 1st release) [www.buckeyecorpus.osu.edu] Columbus, OH: Department of Psychology, Ohio State University (Distributor).
3. Kiesling, S., **Dilley, L.**, and Raymond, W. (2006) The Variation in Conversation (ViC) Project: Creation of the Buckeye Corpus of Conversational Speech. Unpublished manuscript, Columbus, OH: Department of Psychology, Ohio State University, available at www.buckeyecorpus.osu.edu.
4. **Dilley, L.**, and Brown, M. (2005) The RaP (Rhythm and Pitch) Labeling System, Version 1.0. Available at <http://tedlab.mit.edu/rap.html>.

INVITED TALKS

1. "Linguistic representations of pitch information: Theoretical and empirical perspectives." Presented at the Acquisition of Linguistic Organization and Human Audition (ALPHA) Workshop of the Acoustical Society of America Meeting, Honolulu, Hawaii, November 26, 2006.
2. "The representation of tonal patterns in language and music." Presented in the Department of Linguistics, Northwestern University, May 12, 2006.
3. "How do we process the 'music' of speech? Pitch, phrasing, and rhythm." Presented in the Department of Psychology and the Department of Communication Disorders, Bowling Green State University, March 3, 2006.
4. "Understanding the role of prosodic characteristics in speech." Presented in the Department of Speech and Hearing Sciences, Arizona State University, February 10, 2006.
5. "How do we process the 'music' of speech? Pitch, phrasing, and rhythm." Presented in the Department of Brain and Cognitive Sciences, University of Rochester, February 2, 2006.
6. "Perception of tonal patterns in speech and other phenomena." Presented in the Department of Cognitive Sciences, University of California at Irvine, December 5, 2005.
7. "What it means to be 'normal': Toward an understanding of speech prosody." Presented to the Communication Disorders Department, Bowling Green State University, Bowling Green, OH, February 8, 2005.
8. "Representing tonal patterns in language and music." Presented for the Cognitive Brown Bag Series, Department of Psychology, The Ohio State University, Columbus, OH, November 30, 2004.

UNPUBLISHED CONFERENCE PRESENTATIONS AND TALKS

1. "It's not *what* you say, but *how* you say it." Presented for the Neuroscience Brown Bag Series, Bowling Green State University, October 19, 2006.
2. "Perceptual organization in intonational phonology: A test of parallelism." Presented at the 10th Laboratory Phonology Conference, Paris, France, July 1, 2006.
3. "Looking beneath the surface: Why AM theory needs to be revised." Presented at the 10th Laboratory Phonology Conference, Paris, France, June 30, 2006.
4. "Advances in prosodic annotation: A test of inter-coder reliability for the RaP (Rhythm and Pitch) and ToBI (Tones and Break Indices) transcription systems." Presented at the 19th annual CUNY Conference on Human Sentence Processing, New York, NY, March 24, 2006.
5. "How do we process the 'music' of speech? Pitch, phrasing, and rhythm." Presented in the Department of Psychology, The Ohio State University, Columbus, OH, January 31, 2006.
6. "Tonal features in language and music: a proposal." Talk presented at the 11th Annual Midcontinental Workshop on Phonology, Ann Arbor, MI, November 5, 2005.
7. "Tonal features in language and music." Talk presented for the Phonetics and Phonology Group, Department of Linguistics, The Ohio State University, Columbus, OH, October 26, 2005
8. "Some correlates of perceptual isochrony in American English speech." Poster presented at the Meeting for the Society for Music Perception and Cognition, San Diego, August 6, 2005.
9. "The representation of tonal patterns in speech and music." Presented in the Center for Cognitive Science, The Ohio State University, Columbus, OH, May 13, 2005.
10. "An introduction to the RaP (Rhythm and Pitch) system of prosodic transcription: Parts I and II." Presented in the Psycholinguistics Laboratory, The Ohio State University, Columbus, OH, May 6 and 13, 2005.
11. "Tonal systems in language and music." Presentation for the Phonetics and Phonology Group, Department of Linguistics, The Ohio State University, Columbus, OH, February 23, 2005.

12. "Tonal systems in language and music: An evaluation of some theories." Parts I and II. Presentation for the Psycholinguistics Lab Meeting, Dept. of Cognitive Science, The Ohio State University, Columbus, OH, February 11 and February 18, 2005.
13. "What it means to be 'normal': Toward an understanding of speech prosody." Presented to the Communication Disorders Department, Bowling Green State University, Bowling Green, OH, February 8, 2005.
14. "No tone is an island: Investigating the relational nature of tones in English." Paper presented at the 79th Annual Meeting of the Linguistics Society of America, Anaheim, CA, January 6, 2005.
15. "Tonal patterns in language and music: A critical look at some assumptions of linguistic theories." Poster presented at the Auditory Perception, Cognition, and Action Meeting (APCAM), 45th Annual Meeting of the Psychonomic Society, Minneapolis, MN, November 18, 2004.
16. "Are categorical effects in F0 extremum alignment related to the perceived relative pitch of syllables?" Poster presented at the meeting of From Sound to Sense: 50+ Years of Discoveries in Speech Communication, Cambridge, MA, June 11, 2004.
17. "Reconciling paradigmatic and syntagmatic views of tonal features." Parts I and II. Presented to the MIT Department of Linguistics, May 3 and May 17, 2004.
18. "F0 peaks and valleys aligned with non-prominent syllables can influence perceived prominence in adjacent syllables." Presented at Speech Prosody 2004, Nara, Japan, March 26, 2004.
19. "Evaluating pitch accent categories in English." Paper presented at the 78th Annual Meeting of the Linguistics Society of America, Boston, MA, January 12, 2004.
20. "What makes speech sound rhythmic?" Presented at the Auditory Perception, Cognition, and Action Meeting (APCAM), 44th Annual Meeting of the Psychonomic Society, Vancouver, November 6, 2003.
21. "The role of categorical effects in uncovering the representation of speech intonation." Presented to the MIT Speech Communication Group, October 15, 2003.
22. "Categorical effects in production of pitch contours in English." Presented at the 15th International Congress of the Phonetic Sciences, Barcelona, August 9, 2003.
23. "Uncovering phonological categories in intonation: some experimental approaches." Paper presented at the ICPHS Satellite Workshop on Intonation in Language Varieties: AM Approaches, Barcelona, Spain, August 3, 2003.
24. "Categories of intonational representation – some effects of alignment and pitch range." Presented at the Phonetics/Phonology Workshop and CSTR Seminar Series, University of Edinburgh, May 14, 2003.
25. "Categories of intonational representation." Presented at the Cambridge-Edinburgh Prosody Group, Cambridge University, UK, May 12, 2003.
26. "A corpus study of perceptual isochrony in speech." Presented at the 13th New England Sequencing and Timing (NEST) Workshop, March 15, 2003.
27. "From Coke bottles to buzzers: Modeling the processes of speech production." Presented during the Speech and Hearing Bioscience and Technology Lecture Series, January 22, 2003.
28. "Categorical distinctions based on F0 peak location: Evidence from production studies." Presentation for the MIT Linguistics Department, Nov. 21, 2002.
29. "What can phonetic alignment reveal about phonological categories?" Presentation for the MIT Tone Group, Nov. 4, 2002.
30. "Variability in acoustic realization of glottalization in American English." Presented at the Workshop on Non-Modal Vocal Fold Vibration and Voice Quality, 14th International Congress of the Phonetic Sciences, San Francisco, US, July 31, 1999.

RELATED EXPERIENCE

- NSF Grant Consultant, "Modeling disfluencies in spontaneous speech" 1994-1998
Principal investigator: Liz Shriberg (SRI International). NSF Grant No. IRI-9314967.
Trained students in the use and application of the ToBI system of prosodic annotation (Silverman et al., 1992). Provided ToBI labels for several hours of the ATIS corpus of spontaneous speech.
- Supervisor, MIT Undergraduate Research Opportunities Program (UROP) 1996-2004
Tutor, English as a Second Language (ESL), Community Learning Center 1997-1998
City of Cambridge, Massachusetts, Division of Human Services Programs
- Sensimetrics Corporation, Cambridge, MA Fall, 1997
Consultant on prosodic annotation for a corpus of short utterances.
- Entropics Corporation, Washington, D.C. Spring, 1995
Consultant on prosodic annotation for a corpus of short utterances.

TEACHING EXPERIENCE

- CDIS 224 Phonetics, Department of Communication Disorders, 1996-1998
Bowling Green State University, Bowling Green, OH
- PSYC 290 Laboratory Methods in Psychology, Department of Psychology, 1997-1998
Bowling Green State University, Bowling Green, OH
- Instructor, Phonetics and Phonology Discussion Series, Department of Linguistics, 2006
Ohio State University, Columbus, OH
- Instructor, Phonetic analysis and corpus-based transcription, 2004-present
Departments of Psychology and Linguistics, Ohio State University, Columbus, OH
- Supervisor, Psychology research independent study, Department of Psychology, 2005-present
Ohio State University, Columbus, OH
- Instructor and Organizer, Workshop on the RaP (Rhythm and Pitch) System of Prosodic
Transcription, Department of Brain and Cognitive Sciences, MIT, Cambridge, MA July, 2005
- Instructor, Speech and Hearing Bioscience and Technology Lecture Series Fall, 2003
Topics: Introduction to Phonological Theory, Models of Speech Production and Perception
- Instructor, Speech and Hearing Bioscience and Technology Lecture Series January, 2003
Topic: Modeling Speech Production Processes

SERVICE

- Ad-hoc reviewer for *Cognition*; *IEEE Transactions on Audio, Speech and Language Processing*; *Journal of the Acoustical Society of America*; *Journal of Phonetics*; *Language and Speech*; the *Leverhulme Trust*; *Phonology*; and *Speech Communication*
- Organizer, Invited Workshop on Using the Buckeye Corpus of Conversational Speech, Fall, 2006
New Ways of Analyzing Variation Conference, Columbus, OH
- Organizing Committee and Session Chair, Auditory Perception, Cognition, and Action Meeting (APCAM), 46th Annual Meeting of the Psychonomics Society, Toronto, ON Fall, 2005
- Organizing Committee, Auditory Perception, Cognition, and Action Meeting (APCAM), 45th Annual Meeting of the Psychonomics Society, Minneapolis, MN Fall, 2004
- Admissions Committee, MIT-Harvard Speech and Hearing Bioscience and Technology Program 2000-2003

PROFESSIONAL ORGANIZATIONS

- Acoustical Society of America 1998-present
International Phonetic Association 2002-present

International Society of Phonetic Sciences	2002-present
Linguistic Society of America	2002-present
Psychonomic Society	2005-present
Society for Music Perception and Cognition	2005-present
Sigma Xi, Scientific Research Honor Society	1997-present

COMPUTER SKILLS

Programming in Perl, MATLAB, C shell, Scheme/Lisp, awk, sed, Praat scripting.
 Extensive experience with speech analysis software, e.g., Praat, WaveSurfer, CoolEdit, Xwaves, D. Klatt analysis and synthesis tools: klspec, klsyn, klattalk; Pitchworks, etc.
 Experience with SPSS, MS Excel, MS Access software, etc.

PERSONAL

Competency in German (reading, writing, and speaking)
 Musician – piano, violin, vocals