

# JULIA FELD STRAND

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## ACADEMIC POSITIONS

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**Assistant Professor (2013 – present)**

*Carleton College (Northfield, MN)*  
Department of Psychology

**Visiting Assistant Professor (2011 – 2013)**

*Carleton College (Northfield, MN)*  
Department of Psychology

**Postdoctoral Research Associate (2010 – 2011)**

*Washington University (St. Louis, MO)*  
Department of Biomedical Engineering  
Laboratory of Sensory Neuroscience and Neuroengineering

## EDUCATION

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**Ph.D. in Psychology (2010)**

*Washington University (St. Louis, MO)*  
Division of Brain, Behavior, and Cognition

**M.A. in Psychology (2008)**

*Washington University (St. Louis, MO)*

**B.A. in Psychology and English, with honors (2004)**

*Tufts University (Medford, MA)*

## COURSES TAUGHT

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- Principles of Psychology (Psyc110)
- Sensation and Perception (Psyc220)
- Laboratory in Sensation and Perception (Psyc221)
- Special Topics in Psychological Research (Psyc300)
- The Psychology of Spoken Words (Psyc362)
- Perceptual & Cognitive Expertise (Psyc372)
- Capstone Seminar: Cognitive & Developmental Psychology (co-taught, Psyc398)
- Summer Quantitative Reasoning Institute: Psychology (Carleton Summer Programs)

## PUBLICATIONS (undergraduate collaborators marked with an asterisk)

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- \*Brown, V., & **Strand, J.** (under re-review). Noise increases listening effort in normal-hearing young adults, regardless of working memory capacity. *Language, Cognition & Neuroscience*
- Liben-Nowell, D., **Strand, J.**, Sharp, A, Woods., K., Wexler, T. (accepted pending minor revisions). The danger of testing effects through selecting controlled subsets, with applications to spoken-word recognition. *Journal of Cognition*.
- \*Brown, V., \*Hedayati, M., \*Zanger, A., \*Mayn, S., \*Ray, L., \*Dillman-Hasso, N., **Strand, J.** (2018). What accounts for individual differences in susceptibility to the McGurk effect? *PLoS ONE*, 13, doi: 10.1371/journal.pone.0207160
- **Strand, J.**, \*Brown, V., Barbour, D. (2018). Talking points: A modulating circle reduces listening effort without improving speech recognition. *Psychonomic Bulletin & Review*, doi: 10.3758/s13423-018-1489-7
- \*Brown, V., & **Strand, J.** (Stage 1 registered report, accepted). “Paying” attention to audiovisual stimuli: Do incongruent stimuli incur greater costs? *Attention, Perception, & Psychophysics*
- **Strand, J.**, \*Brown, V., \*Merchant, M., \*Brown, H., \*Smith, J. (2018). Measuring listening effort: Convergent validity, sensitivity, and links with cognitive and personality measures. *Journal of Speech, Language & Hearing Research*, 61, 1463–1486, doi:10.1044/2018\_JSLHR-H-17-0257
- **Strand, J.**, \*Brown, V., \*Brown, H., & \*Berg, J. (2017). Keep listening: Grammatical context reduces but does not eliminate activation of unexpected words. *Journal of Experimental Psychology: Learning, Memory, & Cognition*, 44, 962-973. doi: /10.1037/xlm0000488
- **Strand, J.**, & Liben-Nowell, D. (2016). Making long-distance relationships work: Quantifying lexical competition with Hidden Markov Models. *Journal of Memory and Language*, 90, 88-102. doi: 10.1016/j.jml.2016.03.007
- Gahl, S., & **Strand, J.** (2016). Many neighborhoods: Phonological neighborhood density in retrieval, planning, articulation, and perception. *Journal of Memory and Language*, 89, 162-178. doi:jml.2015.12.006 0749-596X
- \*Slote, J., & **Strand, J.** (2016). Conducting spoken word recognition research online: Validation and a new timing method. *Behavior Research Methods* 48(2), 553-66. doi: 10.3758/s13428-015-0599-7
- **Strand, J.**, \*Cooperman, A., \*Rowe, J., & \*Simenstad A. (2014). Individual differences in susceptibility to the McGurk effect: Links with lipreading and detecting audiovisual incongruity. *Journal of Speech, Language & Hearing Research*, 57, 2322-2331. doi:10.1044/2014\_jslhr-h-14-0059.
- **Strand, J.**, \*Simenstad, A., \*Cooperman, A., & \*Rowe, J. (2014). Grammatical context constrains lexical competition in spoken word recognition. *Memory & Cognition*, 42, 676-687. doi: 10.3758/s13421-013-0378-6
- **Strand, J.** (2014). Phi-square Lexical Competition Database (Phi-Lex):An online tool for quantifying auditory and visual lexical competition. *Behavior Research Methods*, 46(1), 148-158. doi:10.3758/s13428-013-0356-8
- **Strand, J.**, & Sommers, M. (2011). Sizing up the competition: Quantifying the influence of the mental lexicon on spoken word identification. *Journal of the Acoustical Society of America*, 130(3), 1663-1672. doi:10.1121/1.3613930
- **Feld, J.**, & Sommers, M. (2011). There goes the neighborhood: Lipreading and the mental lexicon. *Speech Communication*, 53, 220-228. doi:10.1016/j.specom.2010.09.003
- **Feld, J.**, & Sommers, M. (2009). Lipreading, processing speed, and working memory in younger and older adults. *Journal of Speech Language and Hearing*, 52(6), 1555-1565. doi: 10.1044/1092-4388(2009/08-0137).
  - o Named ‘All-around favorite article’ in the Hearing Journal’s Best of 2009: Audiologic Rehabilitation

## PEER-REVIEWED CONFERENCE PROCEEDINGS

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- \*Brown, V., \*Chen, X., \*Hedayati, M., \*Sikes, C., **Strand, J.**, \*Wilson, T., & Liben-Nowell, D. (2019). Node ordering for rescalable network summarization (or, the apparent magic of word frequency and age of acquisition in the lexicon). In *Complex Networks and Their Applications VII* (pp. 66–80). Springer International Publishing.

## TALKS AT NATIONAL CONFERENCES

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- **Strand, J.**, & \*Slote, J. (November, 2014). Validating the use of an online platform to collect spoken word recognition data. Presented at the Auditory Perception, Cognition and Action Meeting. Long Beach, CA.
- Gahl, S., & **Strand, J.** (January, 2013). Explaining phonetic variation: Similarity vs. confusability as predictors of vowel dispersion. Presented at the Linguistics Society of America Annual Meeting, Boston, Massachusetts.
- **Feld, J.**, & Sommers, M. (November, 2010). There goes the neighborhood: Lipreading and the structure of the mental lexicon. Presented at the Auditory Perception, Cognition and Action Meeting. St. Louis, Missouri.

## INVITED TALKS

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- *Integrating contextual and perceptual information during spoken word recognition* (March, 2017). Washington University in St. Louis department of Psychology lecture.
- *Why you're a better listener than your smartphone: Context and visual cues in spoken word recognition* (March, 2016). Carleton Clubs Twin Cities Downtown Luncheon. Minneapolis, MN.
- *Careers at liberal arts colleges: Maintaining a successful research program.* (November, 2014). Annual meeting of the Psychonomic Society. Long Beach, CA.
- *It's very hard to wreck a nice beach: Using Hidden Markov Models to model spoken word recognition* (July, 2014). Carleton College Summer Science Tea Talks (with David Liben-Nowell).
- *Grammatical context and models of spoken word recognition.* (September, 2013). University of Minnesota Center for Cognitive Sciences Textgroup, Minneapolis, MN.
- *Words in the Mind: Perceiving Spoken Language.* (July, 2013). Carleton Summer Science Tea Talks.
- *Expert perception: Face & speech recognition.* (June, 2013). Advanced Placement Psychology Summer Institute.
- *Recognizing words by sight and sound: Lexical competition and the mental lexicon.* (March 2013). University of California, Berkeley Linguistics Department Colloquium.
- *See what I'm saying? Speech perception by ear and eye.* (July, 2012). Carleton College Summer Quantitative Reasoning Institute research talk series.
- *The expert in each of us.* (June, 2012). Advanced Placement Psychology Summer Institute.
- *Spoken word recognition: Individual differences and cognitive effects.* (October, 2011). Carleton College Linguistics Department Colloquium Series.

## POSTERS AT NATIONAL CONFERENCES

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- **Strand, J.**, \*Brown, V., Barbour, D. (November, 2018). Talking points: A modulating circle reduces listening effort without improving speech recognition. Poster presented at the Annual Meeting of the Psychonomic Society, New Orleans, LA.

- \*Brown, V., **Strand, J.** (November, 2018). Noise increases listening effort in normal-hearing young adults, regardless of working memory capacity. Poster presented at the Auditory Perception, Cognition and Action Meeting, New Orleans, LA.
- **Strand, J.**, \*Brown, V., \*Merchant, M., \*Brown, H., \*Smith, J. (November, 2017). Measuring listening effort: Convergent validity, sensitivity, and links with cognitive and personality measures. Poster presented at the Auditory Perception, Cognition and Action Meeting. Vancouver, Canada.
- **Strand, J.**, \*Brown, V., \*Brown, H. (November, 2016). Keep listening: Grammatical context reduces but does not eliminate activation of unexpected words. Poster presented at the Annual Meeting of the Psychonomic Society, Boston, MA.
- \*Papaioannou, O., **Strand, J.**, Grauly, C., Oretogo, K., Canseco-Gonzalez, E. (March, 2015). Multistage audiovisual speech processing modulating the mismatch negativity. Presented at the Cognitive Neuroscience Society Annual Meeting, San Francisco, CA.
- **Strand, J.**, \*Simenstad, A., \*Berg, J., \*Slote, J (November, 2014). Grammatical context restricts which lexical candidates are activated during spoken word recognition. Presented at the Annual Meeting of the Psychonomic Society, Long Beach, CA.
- **Strand, J.**, \*Cooperman, A., \*Rowe, J., \*Simenstad, A. (May, 2014). Individual variability in audiovisual integration: Insights from the McGurk effect. Presented at the Association for Psychological Science Annual Meeting. San Francisco, CA.
- **Strand, J.**, \*Simenstad, A., \*Cooperman, A., \*Rowe, J. (May, 2013). Grammatical context constrains lexical activation during spoken word recognition. Presented at the Association for Psychological Science Annual Meeting. Washington, DC
- Gahl, S., & **Strand, J.** (March, 2013). Auditory confusability vs. phonological neighborhood in language production. Presented at the CUNY Conference, Columbia, SC.
- **Strand, J.** (November, 2012). Neighborhood density and grammatical class: Within-class competitors benefit spoken word recognition. Poster presented at the Auditory Perception, Cognition and Action Meeting. Minneapolis, MN.
- **Strand, J.**, & Sommers, M. (May, 2012). Nouns in the neighborhood: Grammatical class influences lexical competition. Poster presented at the meeting of the Association for Psychological Science. Chicago, IL.
- **Feld, J.**, Barbour, D., & Sommers, M. (February, 2011). Sizing up the competition: Quantifying the influence of the mental lexicon on spoken word recognition. Poster presented at the meeting of the Association of Research in Otolaryngology. Baltimore, MD.
- **Feld, J.**, & Sommers, M. (April, 2008). Visual speech perception and aging. Poster presented at the Cognitive Aging Conference. Atlanta, GA.
- **Feld, J.**, & Sommers, M. (November, 2007). Lipreading, processing speed, and working memory in younger & older adults. Poster presented at the Annual Meeting of the Psychonomic Society. Long Beach, CA.
- Harris, C., & **Feld, J.** (July, 2004). Language is embodied, emotional, and contextualized: Evidence from psychophysiological studies of bilingual speakers. Presented at Language, Culture, and Mind, University of Portsmouth. Portsmouth, U.K.

## STUDENT POSTERS SUPERVISED

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- \*Hedayati, M., \*Smith, J., \*Zanger, A., \*Wennberg, J., \*Mayn, S., \*Ray, L., \*Dillman-Hasso, N., \*Finstuen-Magro, K., \*Frieden, A., Brown, V., **Strand, J.** (April, 2018). Changes in listening effort across difficulty condition are independent of working memory. Presented at the Minnesota Undergraduate Psychology Conference.
- \*Mayn, S., \*Ray, L., \*Dillman-Hasso, N., \*Finstuen-Magro, K., \*Frieden, A., \*Hedayati, M., \*Smith, J., \*Zanger, J., \*Wennberg, J., Brown, V., **Strand, J.** April, 2018). Talking Points: A

Modulating Circle Reduces Listening Effort Without Improving Speech Recognition. Presented at the Minnesota Undergraduate Psychology Conference.

- \*Hedayati, M., \*Ray, L., \*Brown, V., & **Strand, J.** (October, 2017). Examining the relationship between listening effort and cognitive ability. Presented at the Carleton Student Research Symposium & Celebration, Northfield, MN
- \*Smith, J., \*Mayn, S., \*Brown, V., & **Strand, J.** (October, 2017). Measuring listening effort: convergent validity and sensitivity. Presented at the Carleton Student Research Symposium & Celebration, Northfield, MN
- \*Brown, V., \*Brown, H., \*Smith, J., \*Hedayati, M., \*Zanger, A., \*Wennberg, J., & **Strand, J.** (April, 2017). Contributions of an abstract visual stimulus to speech recognition and listening effort. Presented at the Minnesota Undergraduate Psychology Conference, Northfield, MN
- \*Brown, V., & **Strand, J.** (October, 2016). Grammatical context reduces but does not eliminate activation for unexpected neighbors. Presented at the Carleton Student Research Symposium & Celebration, Northfield, MN
- \*Slote, J., & **Strand, J.** (October, 2014). Conducting crowdsourced auditory word-recognition research with the Web Audio API and Amazon Mechanical Turk. Presented at the Carleton Student Research Symposium & Celebration, Northfield, MN
- \*Berg, J., \*Slote, J., \*Simenstad, A., **Strand, J.** (April, 2014). I only have eyes for nouns: Lexical competition is restricted to grammatically appropriate neighbors. Presented at the Minnesota Undergraduate Psychology Conference, Minneapolis, MN
- \*Rowe, J., **Strand, J.**, \*Cooperman, A., \*Simenstad, A. (October, 2013). See what I'm saying? Evaluating susceptibility to the McGurk illusion. Carleton Student Research Symposium.
- \*Simenstad, A., \*Cooperman, A., \*Rowe, J., **Strand, J.** (April, 2013). Grammatical context constrains lexical activation during spoken word recognition. Presented at the Minnesota Undergraduate Linguistics Symposium, Northfield, MN and at the Minnesota Undergraduate Psychology Conference, Minneapolis, MN

## GRANT SUPPORT

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- *Carleton Curriculum Development Grant* (with collaborators Jason Decker & Marty Baylor) to create an interdisciplinary course on vision and color perception, drawing from physics, philosophy, and psychology. Summer, 2018
- *Carleton Curriculum Development Grant to Support Integrative Learning* (with collaborator Jennifer Wolff) to create a collaborative learning experience for Sensation & Perception and Genetics courses. Winter, 2014
- *Carleton College Writing Across the Curriculum Grant* to revise Psyc220 (Sensation & Perception) Summer, 2013
- *Carleton College Curriculum Development Grant* to develop a new course: Perceptual and Cognitive Expertise Summer, 2013
- *Howard Hughes Medical Institute* to Carleton College Interdisciplinary Science and Math Initiative (*Grant 52006286*) - Support for student research & supplies, Summers, 2012 - 2014
- *Carleton Quantitative Inquiry, Reasoning, and Knowledge Initiative* course revision grant. Summer, 2012

## COLLEGE SERVICE

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- Summer Science Tea Talks coordinator, 2016 & 2018
- College Council, 2017 - 2018
- Chair, working group on the challenges facing low-income and first-generation students, 2016
- Committee on Student Life Member, 2014 - 2016
- Psychology Department Comps Coordinator, 2014 - 2016, 2017 - 2018

- Quantitative Inquiry, Reasoning, and Knowledge Initiative Steering Committee, 2013 - 2015
- Minnesota Undergraduate Linguistics Symposium panelist, *Being a Linguist*, 2013
- Learning and Teaching Center Book Club facilitator, 2012
- Psychology Department & Curricular Committee presenter, *Getting into Grad School*, 2011 - 2013
- Writing Center portfolio reader, 2012 - 2014
- Psychology Department, Journal Club advisor, 2011 - 2014

## PROFESSIONAL ACTIVITIES AND MEMBERSHIPS

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**Memberships:** Acoustical Society of America, Auditory Perception, Cognition, Action Research Foundation, Association for Psychological Science, Cognitive Science Society, Psychonomic Society, Society for the Improvement of Psychological Science, Society for the Teaching of Psychology, Women in Cognitive Science

**Service to the field:** Auditory Perception, Action, Cognition Meeting organizing committee member (2018)

**Ad hoc Reviewer:** American Journal of Psychology; Behavior Research Methods; Cognitive Science Society; Experimental Brain Research; International Journal of Audiology; Journal of the Acoustical Society of America; Journal of Experimental Psychology: General; Journal of Speech, Language, and Hearing Research; Language and Speech; PLoS ONE; Psychological Science