

# JULIA FELD STRAND

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*Updated 3/25/20*

## 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)
- Capstone Seminar: Psychology's Credibility Revolution (Psyc399)
- Summer Quantitative Reasoning Institute: Psychology (Carleton Summer Programs)

## PEER-REVIEWED PUBLICATIONS (\* indicates undergraduate and alumni collaborators)

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- \*Brown, V., McLaughlin, D., **Strand, J.**, & Van Engen, K. (2020). Rapid adaptation to fully intelligible nonnative-accented speech reduces listening effort. *Quarterly Journal of Experimental Psychology*.
- **Strand, J.**, \*Brown, V., Barbour, D. (2020). Talking points: A modulating circle increases listening effort without improving speech recognition in younger adults. *Psychonomic Bulletin & Review*, doi: 10.3758/s13423-020-01713-y.
- \*Brown, V., & **Strand, J.** (2019). About face: Seeing the talker improves spoken word recognition but increases listening effort. *Journal of Cognition*.
- \*Brown, V., & **Strand, J.** (2019). “Paying” attention to audiovisual stimuli: Do incongruent stimuli incur greater costs? *Attention, Perception, & Psychophysics*, 6, 1743-1756. doi:10.3758/s13414-019-01772-x. Registered Report.
- Liben-Nowell, D., **Strand, J.**, Sharp, A, Woods., K., Wexler, T. (2019). The danger of testing effects through selecting controlled subsets, with applications to spoken-word recognition. *Journal of Cognition*, 2, doi: 10.5334/joc.51
- \*Brown, V., & **Strand, J.** (2018). Noise increases listening effort in normal-hearing young adults, regardless of working memory capacity. *Language, Cognition & Neuroscience*, 34, 628-640. doi:10.1080/23273798.2018.1562084
- \*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., \*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.

## PEER-REVIEWED PEDAGOGICAL PUBLICATIONS

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- **Strand, J., & \*Brown, V.** (2019). Publishing open, reproducible research with undergraduates. *Frontiers in Educational Psychology, 10*. doi: 10.3389/fpsyg.2019.00564

## INVITED TALKS

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- *The Many Faces of Listening Effort* (March, 2020). Union College Department of Psychology lecture. Schenectady, NY.
- *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.

## TALKS AT NATIONAL CONFERENCES

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- Strand, J. (November, 2019). *The jingle and jangle of listening effort.* Presented at the Auditory Perception, Cognition and Action Meeting. Montreal, Canada

- **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.

## POSTERS AT NATIONAL CONFERENCES

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- **\*Ray, L., \*Dillman-Hasso, N., \*Brown, V., \*Hedayati, M., \*Zanger, A., \*Mayn, S., Strand, J.** (November, 2019). What accounts for individual differences in susceptibility to the McGurk effect? Auditory Perception, Cognition and Action Meeting, Montreal, Canada.
- **\*Brown, V., & Strand, J.** (2019). About face: Seeing the talker improves spoken word recognition but increases listening effort. Annual Meeting of the Psychonomic Society, Montreal, Canada.
- **Strand, J., \*Brown, V., Barbour, D.** (November, 2018). Talking points: A modulating circle reduces listening effort without improving speech recognition. 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. Auditory Perception, Cognition and Action Meeting, New Orleans, LA.
- **Liben-Nowell, D., Strand, J.** (May, 2018). The danger of testing effects through selecting controlled subsets, with applications to spoken-word recognition. Association for Psychological Science Annual Meeting. San Francisco, CA.
- **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. 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. 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. 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. 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. 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. Association for Psychological Science Annual Meeting. Washington, DC
- **Gahl, S., & Strand, J.** (March, 2013). Auditory confusability vs. phonological neighborhood in language production. CUNY Conference, Columbia, SC.
- **Strand, J.** (November, 2012). Neighborhood density and grammatical class: Within-class competitors benefit spoken word recognition. Auditory Perception, Cognition and Action Meeting. Minneapolis, MN.

- **Strand, J., & Sommers, M.** (May, 2012). Nouns in the neighborhood: Grammatical class influences lexical competition. 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. Association of Research in Otolaryngology. Baltimore, MD.
- **Feld, J., & Sommers, M.** (April, 2008). Visual speech perception and aging. Cognitive Aging Conference. Atlanta, GA.
- **Feld, J., & Sommers, M.** (November, 2007). Lipreading, processing speed, and working memory in younger & older adults. 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. Language, Culture, and Mind, University of Portsmouth. Portsmouth, U.K.

## STUDENT POSTERS SUPERVISED

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- Minnesota Undergraduate Psychology Conference: 2013–2019
- Carleton Student Research Symposium & Celebration: 2013–2019
- Minnesota Undergraduate Linguistics Symposium: 2013

## EXTERNAL GRANT SUPPORT

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- NIH AREA grant 1R15DC018114-01, 9/1/2019-8/31/2022, “Evaluating the listening effort associated with audiovisual speech,” \$404,634.00
- *Association for the Advancement of Liberal Arts Colleges* support for a workshop on “Teaching and Employing Open Science Practices at Small Liberal Arts Colleges,” to be conducted 08/2020, \$17,000

## INTERNAL 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. 2018
- *Carleton Curriculum Development Grant to Support Integrative Learning* (with collaborator Jennifer Wolff) to create a collaborative learning experience for Sensation & Perception and Genetics. 2014
- *Carleton College Writing Across the Curriculum Grant* to revise Psyc220 (Sensation & Perception). 2013
- *Carleton College Curriculum Development Grant* to develop a new course: Perceptual and Cognitive Expertise. 2013
- *Howard Hughes Medical Institute* to Carleton College Interdisciplinary Science and Math Initiative (*Grant 52006286*) - Support for student research & supplies. 2012-2014
- *Carleton Quantitative Inquiry, Reasoning, and Knowledge Initiative* course revision grant. 2012

## COLLEGE SERVICE

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- Carleton IRB committee, 2019-
- College Council, 2017-2019
- Summer Science Tea Talks coordinator, 2016 & 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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### **Leadership in Professional Societies:**

- Auditory Perception, Action, Cognition Meeting organizing committee member, 2018-
- Society for the Improvement of Psychological Science programming committee member, 2019-

**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

**Ad hoc Reviewer:** American Journal of Psychology; Applied Psycholinguistics; Attention, Perception, & Psychophysics; 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, WIREs Cognitive Science