

# Jacob Hoover VIGLY\*

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2025–PRES.	Scientific Program Coordinator, <b>CHI FRO, LLC</b>
2024–2025	Postdoctoral Fellow (NSF SPRF), <b>Massachusetts Institute of Technology</b> Department of Brain and Cognitive Sciences <a href="#">Computational Psycholinguistics Laboratory</a>   PI: Roger Levy

## Education

2018–24	PhD, <b>McGill University</b> , Department of <a href="#">Linguistics</a> , and <a href="#">Mila – Québec AI Institute</a> advisor: Timothy J. O'Donnell dissertation: “The Cost of Information: Looking beyond Predictability in Language Processing”
2006–12	ALB, <i>cum laude</i> , <b>Harvard University Extension School</b> Field of Study: Mathematics   Minor: Linguistics

## Teaching

WINTER '23	Instructor, McGill COMP/LING 445 <i>Computational Linguistics</i>
FALL '21	Guest lecture for McGill COMP/LING 445 <i>Computational Linguistics</i>
2019–22	Teaching Assistant, 6 McGill courses in linguistics/computer science COMP/LING 596 <i>Probabilistic Programming</i> (WINTER '21, WINTER '22) COMP/LING 445 <i>Computational Linguistics</i> (FALL '20, '21) LING 201 <i>Introduction to Linguistics</i> (FALL '19, WINTER '20)

## Community

2020–22	Graduate student representative, McGill Linguistics Department
2020	Graduate Program changes Committee, student member
2019–22	Vice President, Academic, <b>GLAM</b> , Graduate Linguistics Association of McGill
2019–20	Founding member, <b>EARTH-LING</b> , McGill Linguistics department environmental working group
2018–24	Student member, webmaster, <b>MCQLL</b> (Montréal Computational & Quantitative Linguistics Lab)

Reviewer for: [ARR](#), 2025; [CogSci](#), 2021; 2025; [CoNLL](#) 2020, 2023, 2025; [TACL](#), 2022;

## Fellowships and Awards

2024–26	<b>National Science Foundation SBE Postdoctoral Research Fellowship (SPRF)</b> : “Algorithmic models of incremental human language comprehension” (SMA <a href="#">2404644</a> ). Co-funded by NSF’s Perception, Action and Cognition (PAC) program. Faculty sponsor: Roger Levy, MIT. US\$160k.
2023	<b>McGill International Graduate Mobility Award</b> , for research visit at MIT. CA\$6k.
2019	<b>CRBLM Graduate Scholar Stipend</b> , Centre for Research on Brain, Language and Music ( <a href="#">CRBLM</a> ). “What neural network models can tell us about linguistic structure.” CA\$3k.

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\*Note: my surname is Vigly. Prior to Sept. 2024, I published under the surname Hoover, which is now a middle name.

# Research

2025 **J. H. Vigly**, P. Qian, M. Sonderegger, and T. J. O'Donnell. June 18, 2025. *Comprehension Effort as the Cost of Inference*. DOI: [10.31234/osf.io/2498w\\_v1](https://doi.org/10.31234/osf.io/2498w_v1). URL: <https://osf.io/2498w> (visited on 06/19/2025). Pre-published.

B. Lipkin, B. LeBrun, **J. H. Vigly**, J. Loula, D. R. MacIver, L. Du, J. Eisner, R. Cotterell, V. Mansinghka, T. J. O'Donnell, A. K. Lew, and T. Vieira. Oct. 7, 2025. "Fast Controlled Generation from Language Models with Adaptive Weighted Rejection Sampling". In: Second Conference on Language Modeling (COLM). Montréal, Canada: OpenReview.net.

**J. H. Vigly**, P. Qian, M. Sonderegger, and T. J. O'Donnell. July 31, 2025. "When Unpredictable Does Not Mean Difficult to Process". Poster. Annual Meeting of the Cognitive Science Society (San Francisco, CA).

T. H. Clark, **J. H. Vigly**, E. Gibson, and R. Levy. July 2025. "A Model of Approximate and Incremental Noisy-Channel Language Processing". In: *Proceedings of the 47th Annual Meeting of the Cognitive Science Society*. San Francisco, CA.

**J. H. Vigly**, V. Boyce, M. Socolof, J. Michaelov, T. von der Malsburg, and R. Levy. Mar. 2025. "Implicit Gender Bias in Linguistic Descriptions for Expected Events: The Case of the 2024 United States Presidential Election". Poster. The 38th Annual Conference on Human Sentence Processing (University of Maryland, College Park).

T. H. Clark, **J. H. Vigly**, E. Gibson, and R. Levy. Mar. 2025. "Modeling Human Inferences and Reading Behavior with an Incremental, Resource-Rational Model of Noisy-Channel Language Processing". Poster. The 38th Annual Conference on Human Sentence Processing (University of Maryland, College Park).

2024 **J. L. Hoover**. Aug. 2024. "The Cost of Information: Looking beyond Predictability in Language Processing". PhD thesis. Montréal, Canada: McGill University. xi, 110.

H. Rahimi, D. Mimno, **J. Hoover**, H. Naacke, C. Constantin, and B. Amann. Mar. 2024. "Contextualized Topic Coherence Metrics". In: *Findings of the Association for Computational Linguistics: EACL 2024*. Findings 2024. Ed. by Y. Graham and M. Purver. St. Julian's, Malta: Association for Computational Linguistics, pp. 1760–1773.

2023 **J. L. Hoover**, M. Sonderegger, S. T. Piantadosi, and T. J. O'Donnell. July 21, 2023. "The Plausibility of Sampling as an Algorithmic Theory of Sentence Processing". In: *Open Mind: Discoveries in Cognitive Science* 7, pp. 350–391. ISSN: 2470-2986. DOI: [10.1162/opmi\\_a\\_00086](https://doi.org/10.1162/opmi_a_00086).

# Languages

English	Native
Estonian	Intermediate (2½ years living and working in Estonia: ~ CEF level B2)
French	Intermediate (~ B2)
Japanese	Novice (two years' undergraduate study, rather atrophied)
Russian, Spanish	Basic knowledge

# Ballet career

2008–18	I worked full-time as professional dancer from 2008 until 2018. Trained as a ballet dancer at Walnut Hill School and Miami City Ballet School, I danced soloist roles at <b>José Mateo Ballet Theatre</b> in Cambridge, MA (2008–12), and <b>Vanemuine Theatre</b> in Tartu, Estonia (2013–15), and was a company dancer for <b>Festival Ballet Providence</b> , now Ballet RI (2015–18).
2018–PRES.	I retired from full-time dancing in 2018, when I began my graduate study at McGill. I have continued with occasional appearances as an independent artist including with <b>Ballet RI</b> , <b>Choreography Project</b> , <b>Revolve Dance Project</b> in Providence, RI, and Robinson Ballet in Bangor, ME.