

# NAOMI TACHIKAWA SHAPIRO

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## EDUCATION

Ph.D., Linguistics (Computational Linguistics Track), anticipated Spring 2023

University of Washington

*Dissertation*: “Crosslingual processing in humans and machines”

*Committee*: Shane Steinert-Threlkeld (chair), Fei Xia, Naja Ferjan Ramírez, and Qi Cheng

M.S., Computational Linguistics, 2021

University of Washington

— Visiting Student Researcher at Stanford University, Autumn 2019

M.S., Symbolic Systems, 2016

Stanford University

B.A., Linguistics and Communication with Honors, 2011

University of Washington

## AWARDS

— University of Washington Presidential Dissertation Fellowship, 2022–2023

— University of Washington Department of Linguistics Excellence in Research Graduate Fellowship, 2021–2022

— Eero and Helli Tetri Endowed Fund for Finnish Studies Scholarship, 2019–2020

— Foreign Language and Area Studies (FLAS) Academic Year Fellowship – Modern Hebrew, 2018–2019

## PUBLICATIONS

Naomi Tachikawa Shapiro, Amandalynne Paullada, and Shane Steinert-Threlkeld. 2021. A multilabel approach to morphosyntactic probing. *Findings of the Association for Computational Linguistics: EMNLP 2021*, 4486–4524.

Naomi Tachikawa Shapiro, Daniel Hippe, and Naja Ferjan Ramírez. 2021. How chatty are daddies? An exploratory study of infants’ language environments. *Journal of Speech, Language, and Hearing Research*, 64(8), 3242–3252.

Naomi Tachikawa Shapiro and Arto Anttila. 2021. On the phonology and semantics of deaccentuation. *Proceedings of the 2020 Annual Meeting on Phonology* (AMP).

Naja Ferjan Ramírez, Daniel Hippe, and Naomi Tachikawa Shapiro. 2021. Exposure to electronic media between 6 and 24 months of age: An exploratory study. *Infant Behavior and Development*, 63, 101549.

Arto Anttila, Timothy Dozat, Daniel Galbraith, and Naomi Tachikawa Shapiro. 2020. Sentence stress in presidential speeches. In Gerrit Kentner and Joost Kremers (eds.), *Prosody in Syntactic Encoding* (pp. 17–50). De Gruyter.

Arto Anttila and Naomi Tachikawa Shapiro. 2017. The interaction of stress and syllabification: Parallel or serial? *Proceedings of the 34<sup>th</sup> West Coast Conference on Formal Linguistics* (WCCFL), 52–61.

Naomi Tachikawa Shapiro. 2016. Splitting compounds with ngrams. *Proceedings of the 26<sup>th</sup> International Conference on Computational Linguistics: Technical Papers* (COLING), 630–640.

## IN PREP

Naomi Tachikawa Shapiro, Ian Rigby, Aaron Apple, Emily Atkinson, and Akira Omaki. Developing sensitivity to linguistic cues in children's processing of verb complement ambiguity.

## CONFERENCE PRESENTATIONS & POSTERS

Naja Ferjan Ramírez, Daniel Hippe, and Naomi Tachikawa Shapiro. 4/2021. Exposure to electronic media between 6 and 24 months of age: An exploratory study. *Society for Research in Child Development Biennial Meeting* (SRCD), *Virtual*.

Naomi Tachikawa Shapiro, Amandalynne Paullada, and Shane Steinert-Threlkeld. 11/2020. Mighty morpho-probing models. *The 3<sup>rd</sup> BlackboxNLP Workshop on Analyzing and Interpreting Neural Networks for NLP* (BlackboxNLP; extended abstract), *Virtual*.

Naomi Tachikawa Shapiro, Daniel Hippe, and Naja Ferjan Ramírez. 11/2020. How chatty are daddies? Parental differences in the language environments of infants. *The 45<sup>th</sup> Boston University Conference on Language Development* (BUCLD), *Virtual*.

Arto Anttila and Naomi Tachikawa Shapiro. 9/2020. Invited tutorial: Corpus studies in phrasal prosody. *Workshop on Intonation, Annual Meeting on Phonology* (AMP), *UC Santa Cruz*.

Emily Atkinson, Ian Rigby, Naomi Tachikawa Shapiro, Brent Woo, and Akira Omaki. 3/2018. Syntactic adaptation effects do not transfer across tasks. *CUNY Conference on Human Sentence Processing*, *UC Davis*.

## TEACHING

### *University of Washington*

— Instructor of Record, LING 599 Linguistics Proseminar, Academic Year 2021–2022

\* Developed new yearlong course sequence

*Course website:* <https://tsnaomi.net/uw/ling-proseminar/>

— Lead Teaching Assistant, Department of Linguistics, Academic Year 2021–2022

— Instructor of Record, LING/CSE 472 Introduction to Computational Linguistics, Spring 2021

— Teaching Assistant, LING 200 Introduction to Linguistic Thought, Spring 2020

— Teaching Assistant, LING 200 Introduction to Linguistic Thought, Spring 2018

### *Girls Who Code*

— Lead Instructor, Summer Immersion Program in Computer Science (Redmond, WA), Summer 2019

### *Stanford University*

— Teaching Assistant, SYMSYS 100 Minds and Machines, Autumn 2015

## RESEARCH ASSISTANTSHIPS

Phonetics Lab + Language Development & Processing Lab, University of Washington, 12/2020–3/2021

*PIs: Richard Wright and Marina Oganyan*

Analyzed visual world eye-tracking data to study the effects of sonority and salience on the perception of novel consonant clusters.

Language Development & Processing Lab, University of Washington, 12/2019–3/2020; 9/2020–12/2020

*PI: Naja Ferjan Ramírez*

Used mixed-effects linear regression to analyze Language ENvironmental Analysis (LENA) recordings. Focused on infant volubility and its associations with parental speech and electronic media exposure.

Language Development & Processing Lab, University of Washington, 9/2017–3/2018

*PI: Akira Omaki*

Studied filler-gap dependencies and syntactic adaptation with adults via reading-based eye-tracking experiments. Investigated how children process verb-complement ambiguities using the visual world paradigm.

Linguistics Department, Stanford University, 1/2015–9/2015; 6/2016–12/2017

*PI: Arto Anttila*

Investigated Finnish phonotactics and English sentential prosody via computational and information-theoretic approaches. Created the Python package *FinnSyll* for the automatic syllabification of Finnish.

## INDUSTRY

*Summer Associate*, RAND Corporation, 6/2020–9/2020

Worked on supervised and weakly supervised methods for text classification.

*Backend Engineer*, Venyooz, 6/2014–12/2014; 2/2017–9/2017

Built the beta version of *SchoolSpace*, web-based software for school districts to manage facility rentals.

*Production Engineer*, Wavii (acquired by Google in 2013), 3/2012–3/2013

Managed the content of a news aggregator app. Annotated snippets for genre, named entities, and predicate relations.

## SERVICE

*Guest Speaker at TA Training Workshop*, Linguistics Department, University of Washington

- “Diversity, equity, and inclusion in the classroom”, 9/2022
- “Reducing barriers and fostering equity, accessibility, and inclusion”, 9/2021 (with Trent Ukasick)
- “Dealing with classroom challenges”, 9/2021 (with Laura McGarrity)
- “Planning your sections: Transitioning from in-person to online teaching”, 9/2020 (with Anna Moroz)

*President*, Linguistics Society at the University of Washington (LSUW), 2020–2021

*Faculty Search Committee* (Subfield: Language Acquisition and Morphosyntactic Processing), Linguistics Department, University of Washington, 2019–2020

*Admissions Reading Committee*, Symbolic Systems M.S. Program, Stanford University, 2015–2016

*Reviewer*

- The Association for Computational Linguistics Rolling Review (ARR), 2022
- The Workshop on Natural Language Processing for Positive Impact (NLP4PI), 2022
- The Conference on Empirical Methods in Natural Language Processing (EMNLP), 2021
- The Annual Meeting of the Association for Computational Linguistics (ACL), 2021
- The University of Washington Working Papers in Linguistics (UWWPL), 2020
- The International Conference on Computational Linguistics (COLING), 2018

## LANGUAGES

English (native), Modern Hebrew (intermediate), Japanese (beginner-intermediate), Finnish (research)

## CODE

- *Languages*: Python, R, JavaScript, Ruby, HTML/CSS
- *Deep learning libraries*: PyTorch, Keras, TensorFlow (coursework)
- *Web frameworks*: Django, Flask, Node.js (coursework), Rails
- *Databases*: PostgreSQL, MongoDB (coursework)