

# Michael C. Stern

## *Curriculum Vitae*

Yale Linguistics Department  
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michael.stern@yale.edu  
2 December 2024

## EDUCATION

- 2020-2026     **PhD, Linguistics, Yale University**  
Dissertation: *Dynamics of speech articulation*  
Advisor: Jason A. Shaw  
Committee: Khalil Iskarous, Tom McCoy
- 2017-2020     **MA, Linguistics, The Graduate Center, City University of New York**  
Thesis: *Testing the perceptual magnet effect in monolinguals and bilinguals*  
Advisors: Kyle Gorman, Gita Martohardjono
- 2012-2016     **BA, Social Thought & Political Economy, University of Massachusetts Amherst**  
Minor in Arabic Language, Commonwealth Honors College, Phi Beta Kappa  
Thesis: *Reflections on being a stranger: A collection of nonfiction prose*  
Advisor: Connie D. Griffin
- 2015     **School for International Training, Amman, Jordan**  
Thesis: *Effects of social identity on Jordanian youth perceptions of activism*  
Advisors: Ashraf Alqudah, Marwan Al-Zoubi

## FELLOWSHIPS AND AWARDS

- 2020-2026     University Fellowship, Yale University
- 2024     Honorable Mention, Raymond H. Stetson Scholarship in Phonetics and Speech Production, Acoustical Society of America
- 2023     MacMillan Center International Conference Travel Grant, Yale University
- 2022     Graduate Student Assembly Conference Travel Fellowship, Yale University
- 2021-2022     Franklin S. Cooper Fellowship Fund, Yale University
- 2021     Student presenter honorarium, Conference on Central Asian Languages and Linguistics (ConCALL-4)
- 2020     Dean's Thesis Prize for Outstanding Thesis, The Graduate Center, CUNY
- 2019-2020     Linguistics Program academic scholarship, The Graduate Center, CUNY
- 2019     Student travel award, Workshop on Sound Change (WSC-5)
- 2018-2019     MA student conference travel awards, The Graduate Center, CUNY

## PUBLICATIONS

### JOURNAL ARTICLES

- [8]     **Stern, M. C.** & Shaw, J. A. (under review). Nonlinear second-order dynamics describe labial constriction trajectories across languages and contexts. *arXiv:2410.08351*.
- [7]     **Stern, M. C.** & Piñango, M. M. (under review). Contextual modulation of language comprehension in a dynamic neural model of lexical meaning. *arXiv:2407.14701*.
- [6]     Shaw, J. A. & **Stern, M. C.** (under review). The Dynamics of Speech Production. *Oxford Research Encyclopedia of Linguistics*.

- [5] Siriwardena, Y. M., Boyce, S. E., Tiede, M. K., Oren, L., Fletcher, B., **Stern, M. C.**, & Espy-Wilson, C. Y. (2024). Speaker-Independent Speech Inversion for Recovery of Velopharyngeal Port Constriction Degree. *Journal of the Acoustical Society of America*, 156(2).
- [4] Chen, W., **Stern, M. C.**, Whalen, D. H., Derrick, D., Carignan, C., Best, C. T., & Tiede, M. K. (2024). Assessing ultrasound probe stabilization for quantifying speech production contrasts using the Adjustable Laboratory Probe Holder for UltraSound (ALPHUS). *Journal of Phonetics*, 105.
- [3] **Stern, M. C.** & Shaw, J. A. (2023). Neural inhibition during speech planning contributes to contrastive hyperarticulation. *Journal of Memory and Language*, 132.
- [2] **Stern, M. C.**, Stover, L., Guerra, E., & Martohardjono, G. (2021). Syntactic and semantic influences on the time course of relative clause processing: The role of language dominance. *Brain Sciences*, 11(8), 1–35.
- [1] **Stern, M. C.**, Madsen II, C. N., Stover, L. M., Lowry, C., & Martohardjono, G. (2019). Language history attenuates syntactic prediction in L1 processing. *Journal of Cultural Cognitive Science*, 4(2), 235-255.

MEDIA COVERAGE: [Graduate Center News](#), [CUNY SUM](#)

## BOOK CHAPTERS

- [2] **Stern, M. C.**, Dayal, V., Martohardjono, G., Chen, M., & Madsen II, C. N. (2022). Definiteness and argument position in the interpretation of bare nouns: From L1 Mandarin to L2 English. In: T. Leal, E. Shimanskaya, and C. A. Isabelli (Eds.), *Generative SLA in the Age of Minimalism. Features, Interfaces, and Beyond. Selected Proceedings of the 15<sup>th</sup> Generative Approaches to Second Language Acquisition Conference*. Amsterdam: John Benjamins.
- [1] Stover, L., **Stern, M. C.**, Lowry, C., Martohardjono, G., & Madsen II, C. N. (2021). Effects of language dominance on L1 relative clause processing. In: *Syntax Processing* (pp. 206-233). Newcastle upon Tyne: Cambridge Scholars Publishing.

## CONFERENCE PROCEEDINGS

- [7] **Stern, M. C.**, & Shaw, J. A. (2024). Towards a minimal dynamics for gestures: a law relating velocity and position. *Proceedings of the 13<sup>th</sup> International Seminar on Speech Production (ISSP)*.
- [6] Tiede, M., Boyce, S., **Stern, M. C.**, Rebernik, T., & Wieling, M. (2024). Production allophones of North American English liquids. *Proceedings of the 13<sup>th</sup> International Seminar on Speech Production (ISSP)*.
- [5] **Stern, M. C.**, & Shaw, J. A. (2023). Not all phonological neighbors affect production equivalently: predictions from a neural dynamic model. In: Radek Skarnitzl & Jan Volín (Eds.), *Proceedings of the 20th International Congress of Phonetic Sciences (ICPhS)* (pp. 4002-4006). Guarant International.
- [4] Kramer, B., **Stern, M. C.**, Wang, Y., Liu, Y., & Shaw, J. A. (2023). Synchrony and stability of articulatory landmarks in English and Mandarin CV sequences. In: Radek Skarnitzl & Jan Volín (Eds.), *Proceedings of the 20th International Congress of Phonetic Sciences (ICPhS)* (pp. 1022-1026). Guarant International.
- [3] Liu, Y., Wang, Y., **Stern, M. C.**, Kramer, B., & Shaw, J. A. (2023). Temporal scope of articulatory slowdown under informational focus: data from English and Mandarin. In: Radek Skarnitzl & Jan Volín (Eds.), *Proceedings of the 20th International Congress of Phonetic Sciences (ICPhS)* (pp. 1691-1695). Guarant International.

- [2] **Stern, M. C.**, Chaturvedi, M., & Shaw, J. A. (2022). A dynamic neural field model of phonetic trace effects in speech errors. *Proceedings of the Annual Meeting of the Cognitive Science Society*, 44.
- [1] **Stern, M. C.** (2021). Phonological contrast drives phonetic implementation: Evidence from category goodness ratings. *University of Pennsylvania Working Papers in Linguistics*, 27(1), 221–230.

## PRESENTATIONS

### REFEREED TALKS

- [23] **Stern, M. C.** & Shaw, J. A. (2024). Investigating speech articulatory control through dynamical model fitting. Lightning talk presented at the 187<sup>th</sup> Meeting of the Acoustical Society of America (ASA).
- [22] **Stern, M. C.**, Piñango, M. M., & Shaw, J. A. (2024). Neural dynamic architecture of language linking the sensory-motor to the conceptual domain via lexical items. Talk presented as part of symposium: *How does the sensory-motor brain integrate and give rise to cognition and learning?* CogSci 2024, Rotterdam, Netherlands.
- [21] Tiede, M., Whalen, D. H., Shadle, C., Koenig, L., & **Stern, M. C.** (2024). Ultrasound imaging of the larynx. Talk presented at Ultrafest XI, University of Aizu, Aizu Wakamatsu, Japan.
- [20] Shaw, J. A. & **Stern, M. C.** (2024). A new dynamics for prosodically-conditioned variation in articulation. Talk presented at the 19<sup>th</sup> Conference on Laboratory Phonology (LabPhon 19), Hanyang Institute for Phonetics and Cognitive Sciences of Language (HIPCS), Hanyang University, Seoul, Korea.
- [19] Tiede, M., Boyce, S., **Stern, M. C.**, Rebernik, T., & Wieling, M. (2024). Production allophones of North American English liquids. Talk presented at the 13<sup>th</sup> International Seminar on Speech Production (ISSP), Autrans, France.
- [18] **Stern, M. C.** & Piñango, M. M. (2024). Dynamic neural field model of lexical meaning predicts contextual modulation during real-time comprehension. Talk presented at the 2024 Linguistic Society of America Annual Meeting (LSA 2024), New York, NY.
- [17] **Stern, M. C.** (2023). Articulatory coordination in CV syllables: movement stiffness and onset lag. Talk presented at the 24<sup>th</sup> Annual SYNC (Stony Brook, Yale, NYU, CUNY) Conference, Stony Brook University.
- [16] Macey, N., **Stern, M. C.**, Lee-Kim, S., & Shaw, J. A. (2023). A dynamic neural model of the interaction between social and lexical influences on speech production: the case of retroflex sibilants in Taiwan Mandarin. Talk presented at the 51<sup>st</sup> New Ways of Analyzing Variation Conference (NWAV 51), Queens College.
- [15] **Stern, M. C.**, & Shaw, J. A. (2023). Not all phonological neighbors affect production equivalently: predictions from a neural dynamic model. Talk presented at the 20th International Congress of Phonetic Sciences (ICPhS), Prague, Czech Republic.
- [14] Kramer, B., **Stern, M. C.**, Wang, Y., Liu, Y., & Shaw, J. A. (2023). Synchrony and stability of articulatory landmarks in English and Mandarin CV sequences. Talk presented at the 20th International Congress of Phonetic Sciences (ICPhS), Prague, Czech Republic.
- [13] Liu, Y., Wang, Y., **Stern, M. C.**, Kramer, B., & Shaw, J. A. (2023). Temporal scope of articulatory slowdown under informational focus: data from English and Mandarin. Talk

presented at the 20th International Congress of Phonetic Sciences (ICPhS), Prague, Czech Republic.

- [12] **Stern, M. C.** & Shaw, J. A. (2023). Coupling the neural dynamics of phonetic and lexical planning in speech production. Talk presented at the 23<sup>rd</sup> Annual SYNC (Stony Brook, Yale, NYU, CUNY) Conference, Yale University.
- [11] **Stern, M. C.**, Whalen, D. H, & Tiede, M. K. (2022). Quantifying tongue shape in the coronal dimension. Talk presented at the 10<sup>th</sup> Conference on Ultrasound Imaging for Speech and Language Research (Ultrafest X), Manchester, UK.
- [10] **Stern, M. C.**, Shaw, J. A., & Kawahara, S. (2022). Assessing phonological control of parasagittal tongue shape in Japanese sibilants. Talk presented at the 96<sup>th</sup> Annual Meeting of the Linguistic Society of America (LSA), Washington, DC.
- [9] Porru, I., **Stern, M. C.**, & Martohardjono, G. (2021). Comparing dominance measures in bilingual speakers of typologically different languages. Talk presented virtually at the 4th Conference on Central Asian Languages and Linguistics (ConCALL-4), Indiana University.
- [8] **Stern, M. C.**, Gorman, K., & Martohardjono, G. (2020). Subcategorical representations of corner vowels versus non-corner vowels. Talk accepted at the 44<sup>th</sup> Penn Linguistics Conference (PLC 44), University of Pennsylvania (canceled due to COVID-19).
- [7] Porru, I., **Stern, M. C.**, & Martohardjono, G. (2020). Explicit and implicit measures of language dominance in Turkish-English bilinguals. Talk presented at the 3<sup>rd</sup> Boğaziçi University Student Conference on Theoretical & Experimental Linguistics (BUSCTEL), Istanbul, Turkey.
- [6] **Stern, M. C.**, Martohardjono, G., Dayal, V., & Madsen II, C. N. (2019). Definiteness and maximality in the interpretation of L2 English ungrammatical bare nouns. Talk presented at the Experimental Psycholinguistics Conference, Palma de Mallorca, Spain.
- [5] Stover, L. M., **Stern, M. C.**, Lowry, C., Martohardjono, G., & Madsen II, C. N. (2019). Language dominance affects bilingual processing of L1 relative clauses. Talk presented at the Experimental Psycholinguistics Conference, Palma de Mallorca, Spain.
- [4] Stover, L. M., **Stern, M. C.**, Lowry, C., Martohardjono, G., & Madsen II, C. N. (2019). Effects of language dominance on the predictive processing of L1 relative clauses. Talk presented at Psycholinguistics in Iceland – Parsing and Prediction (PIPP), Reykjavik, Iceland.
- [3] **Stern, M. C.**, Madsen II, C. N., Dayal, V., & Martohardjono, G. (2019). From determiner-less L1 to L2 acquisition of determiners: The unambiguity hypothesis. Talk presented at the 15th Annual Generative Approaches to Second Language Acquisition conference (GASLA 15), University of Nevada, Reno.
- [2] **Stern, M. C.**, Martohardjono, G., Dayal, V., & Madsen II, C. N. (2019). Semantic transfer effects in the L2 interpretation of English ungrammatical bare nouns. Talk accepted at the Second International Conference on Theoretical East Asian Psycholinguistics (ICTEAP-2), Tsinghua University.
- [1] **Stern, M. C.** (2018). Revisiting the “perceptual magnet effect”: Language experience and perceptual warping. Talk presented at the 20th Annual SYNC Conference, Stony Brook University.

## REFEREED POSTERS

- [13] Macey, N., **Stern, M. C.**, Lee-Kim, S., & Shaw, J. A. (2024). A dynamical theory of latent phonological contrasts. Poster accepted at the 19<sup>th</sup> Conference on Laboratory Phonology (LabPhon 19), Hanyang Institute for Phonetics and Cognitive Sciences of Language (HIPCS), Hanyang University, Seoul, Korea.
- [12] **Stern, M. C.** & Shaw, J. A. (2024). Towards a minimal dynamics for gestures: a law relating velocity and position. Poster presented at the 13<sup>th</sup> International Seminar on Speech Production (ISSP), Autrans, France.
- [11] Wang, Y., Kramer, B., Macey, N., **Stern, M. C.**, Liu, Y., & Shaw, J. A. (2023). Cross-linguistic influence on the gestural dynamics of focus prosody in native Mandarin learners of L2 English. Poster presented at the 3<sup>rd</sup> Hanyang International Symposium on Phonetics and Cognitive Sciences of Language (HISPhonCog 2023), Seoul, Korea.
- [10] **Stern, M. C.**, Chaturvedi, M., & Shaw, J. A. (2022). A dynamic neural field model of phonetic trace effects in speech errors. Poster presented at the 44<sup>th</sup> Annual Meeting of the Cognitive Science Society (CogSci), Toronto, ON.
- [9] **Stern, M. C.** & Shaw, J. A. (2022). Minimal-pair-induced phonetic change over multiple timescales. Poster presented at the 18<sup>th</sup> Conference on Laboratory Phonology (LabPhon).
- [8] **Stern, M. C.**, & Shaw, J.A. (2022). Neural inhibition during speech planning contributes to contrastive hyperarticulation. Poster presented at the 12<sup>th</sup> International Workshop on Language Production (IWOLP), Pittsburgh, PA.
- [7] **Stern, M. C.** & Shaw, J. A. (2021). [tongue fold] as an emergent distinctive feature: kinematic evidence from Japanese sibilants. Poster presented virtually at the Annual Meeting on Phonology (AMP), Toronto, ON.
- [6] **Stern, M. C.**, Chen, M., Dayal, V., & Martohardjono, G. (2020). Discourse versus syntax: The interpretation of ungrammatical bare nouns in L2 English. Poster presented virtually at the first Experiments in Linguistic Meaning (ELM) conference, University of Pennsylvania.
- [5] **Stern, M. C.**, Gorman, K., & Martohardjono, G. (2020). Measuring subcategorical representations of speech sounds. Poster presented at the Berkeley Linguistics Society special workshop, Phonological Representations: At the Intersection of Categoricity and Gradience, University of California, Berkeley.
- [4] **Stern, M. C.** (2019). The perceptual magnet effect as a mechanism of contact-induced sound change. Poster presented at the 5th Workshop on Sound Change, University of California, Davis.
- [3] **Stern, M. C.** (2019). Magnet effects in monolingual and bilingual perception. Poster presented at the 27th Manchester Phonology Meeting, The University of Manchester.
- [2] **Stern, M. C.**, Martohardjono, G., & Dayal, V. (2019). The acquisition of (in)definiteness: From L1 Mandarin to L2 English. Poster presented at the Workshop on Identifying (In)definiteness: From Silent Morphosyntax to Semantics, Yale University.
- [1] Madsen II, C. N., **Stern, M. C.**, Stover, L. M., Lowry, C., & Martohardjono, G. (2019). Eye-tracking investigation of relative clause processing in two groups of bilingual speakers. Poster presented at the 93rd Annual Meeting of the Linguistic Society of America (LSA), New York, NY.

## INVITED TALKS

- [4] **Stern, M. C.** (2024). *Articulatory dynamics across languages and prosodic contexts*. Invited talk at the Penn Phonetics Lab, University of Pennsylvania.
- [3] **Stern, M. C.** (2024). *Tutorial for neural dynamic modeling of speech planning and discussion of Stern & Shaw (2023)*. Guest lecture for Jason Shaw's seminar "Linguistic Structure in Speech Planning and Production", Yale University.
- [2] **Stern, M. C.** (2022). *Psycholinguistic models*. Guest lecture for Jason Shaw's class "Introduction to Linguistics", Yale University.
- [1] **Stern, M. C.,** Franciotti, P., & Stover, L. M. (2019). *Eye-tracking in bilingualism research*. Guest lecture for Irina Sekerina's class "Introduction to Psycholinguistics: Eye-Tracking", The Graduate Center, CUNY.

## WORKSHOP TALKS

- [2] **Stern, M. C.** (2018). Context effects on acceptability judgments. Talk presented at the 13th Annual Showcasing Quirky and Unusual Ideas in Development (SQUID), The Graduate Center, CUNY.
- [1] Madsen II, C. N., **Stern, M. C.,** Stover, L. M., Lowry, C., & Martohardjono, G. (2018). Eye-tracking investigation of relative clause processing in Spanish heritage speakers. Talk presented at Connecting Innovative Research in CUNY Linguistics (CIRCL), The Graduate Center, CUNY.

## RESEARCH POSITIONS

- 2022-                 Research Assistant, Haskins Laboratories, New Haven, CT  
                          NSF grant BCS-2141275: Estimating Articulatory Constriction Place and Timing from Speech Acoustics (PIs: Mark Tiede, Carol Espy-Wilson, Suzanne Boyce)  
                          NIH grant DC-002717: Links Between Production and Perception in Speech (PI: Doug Whalen)
- 2019-2021           Research Consultant to Veneeta Dayal, Yale University
- 2018-2020           Research Coordinator, Second Language Acquisition Lab, The Graduate Center, CUNY
- 2017-2018           Research Assistant, Second Language Acquisition Lab, The Graduate Center, CUNY

## TEACHING

- Spring 2024         Teaching Fellow, Language and Gender, Yale University
- Spring 2023         Teaching Fellow, Cognitive Science of Language, Yale University
- Fall 2022            Teaching Fellow, Introduction to Linguistics, Yale University
- 2016-2017          English Language Instructor, Chungdahm Learning, South Korea

## PROFESSIONAL ACTIVITY

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| 2020-     | 4 manuscript reviews for: <i>Cognitive Science</i> ; <i>Journal of Phonetics</i> ; <i>Language Acquisition: A Journal of Developmental Linguistics</i> ; <i>Proceedings of the Experimental Psycholinguistics Conference</i> |
| 2023-     | 5 abstract reviews for: 23 <sup>rd</sup> Annual SYNC Conference, Yale University; 24 <sup>th</sup> Annual SYNC Conference, Stony Brook University  |
| 2023-2023 | Co-organizer, 23 <sup>rd</sup> Annual SYNC Conference, Yale University   |
| 2021-2022 | Co-organizer, Linguistics Colloquium Series, Yale University   |
| 2021-2023 | Lead organizer, Phonetics/Phonology Reading Group, Yale University   |
| 2020-     | Member, Phonetics/Phonology Reading Group, Yale University   |
| 2019-2020 | Lead organizer, Phonetics/Phonology Reading Group, The Graduate Center, CUNY   |
| 2018-2019 | Member, Bilingualism Reading Group, The Graduate Center, CUNY  |