# Formal Language Theory and Phonology
# Further Reading List

Jane Chandlee and Adam Jardine

July 13, 2023

## Overviews

Chandlee, J. and Heinz, J. (2017). Computational phonology. In Aronoff, M., editor, *Oxford Research Encylcopedia of Linguistics*. Oxford University Press.

Heinz, J. (2011a). Computational phonology part I: Foundations. *Language and Linguistics Compass*, 5(4):140–152.

Heinz, J. (2011b). Computational phonology part II: Grammars, learning, and the future. *Language and Linguistics Compass*, 5(4):153–168.

Heinz, J. (2018). The computational nature of phonological generalizations. In Hyman, L. and Plank, F., editors, *Phonological Typology*, Phonetics and Phonology, chapter 5, pages 126–195. De Gruyter Mouton.

Nowak, M. A., Komarova, N. L., and Niyogi, P. (2002). Computational and evolutionary aspects of language. *Nature*, 417:611–617.

## Formal Languages and Phonotactics

Heinz, J. (2010). Learning long-distance phonotactics. *Linguistic Inquiry*, 41(4):623–661.

McMullin, K. (2016). *Tier-based locality in long-distance phonotactics: Learnability and typology*. PhD thesis, Universit of British Columnbia.

Rogers, J. and Pullum, G. (2011). Aural pattern recognition experiments and the subregular hierarchy. *Journal of Logic, Language and Information*, (20):329–342.

## Functions and Processes

Burness, P., McMullin, K., and Chandlee, J. (2021). Long-distance phonological processes as tier-based strictly local functions. *Glossa*, 16(1).

Chandlee, J. (2014). *Strictly Local Phonological Processes*. PhD thesis, University of Delaware.

Chandlee, J., Heinz, J., and Jardine, A. (2018). Input strictly local opaque maps. *Phonology*, 35(2):171–205.

Chandlee, J. and Jardine, A. (2021). Computational universals in linguistic theory: Using recursive programs for phonological analysis. *Language*, 93:485–519.

Heinz, J. and Lai, R. (2013). Vowel harmony and subsequentiality. In Kornai, A. and Kuhlmann, M., editors, *Proceedings of the 13th Meeting on the Mathematics of Language (MoL 13)*, pages 52–63, Sofia, Bulgaria.

Jardine, A. (2016). Computationally, tone is different. *Phonology*, 33:247–283.

Kaplan, R. and Kay, M. (1994). Regular models of phonological rule systems. *Computational Linguistics*, 20:371–387.

Luo, H. (2017). Long-distance consonant agreement and subsequentiality. *Glossa: A Journal of General Linguistics*, 2(1):52.

McCollum, A. G., Baković, E., Mai, A., and Meinhardt, E. (2020). Unbounded circumambient patterns in segmental phonology. *Phonology*, 37(2):215–255.

Meinhardt, E., Mai, A., Baković, E., and McCollum, A. G. (to appear). Weak determinism and the computational consequences of interaction. *Natural Language and Linguistic Theory*.

Payne, A. (2017). All dissimilation is computationally subsequential. *Language: Phonological Analysis*, 93(4):e353–e371.

## Representation

Chandlee, J. and Jardine, A. (2021). Input and output locality and representation. *Glossa: A Journal of General Linguistics*, 6(43).

Nelson, S. (2022). A model theoretic perspective on phonological feature systems. In *Proceedings of the Society for Computation in Linguistics*, volume 5, pages 1–10.

Strother-Garcia, K. (2019). *Using Model Theory in Phonology: A Novel Characterization of Syllable Structure and Syllabification*. PhD thesis, University of Delaware.

## Learning

Chandlee, J., Eyraud, R., Heinz, J., Jardine, A., and Rawski, J. (2019). Learning with partially ordered representations. In *Proceedings of the 16th Meeting on the Mathematics of Language*, pages 91–101, Toronto, Canada. Association for Computational Linguistics.

Clark, A. and Lappin, S. (2011). *Linguistic Nativism and the Poverty of the Stimulus*. Wiley-Blackwell.

Gildea, D. and Jurafsky, D. (1996). Learning bias and phonological-rule induction. *Computational Linguistics*, 24(4).

Heinz, J. (2010). Learning long-distance phonotactics. *Linguistic Inquiry*, 41(4):623–661.

Heinz, J., de la Higuera, C., and van Zaanen, M. (2016). *Grammatical Inference for Computational Linguistics*. Number 28 in Synthesis Lectures on Human Language Technologies. Morgan & Claypool Publishers.

Jardine, A. and Heinz, J. (2016). Learning tier-based strictly 2-local languages. *Transactions of the Association for Computational Linguistics*, 4:87–98.

## FLT and OT

Frank, R. and Satta, G. (1998). Optimality Theory and the generative capacity complexity of constraint violability. *Computational Linguistics*, 24:277–299.

Gerdemann, D. and Hulden, M. (2012). Practical finite state Optimality Theory. In *Proceedings of the 10th International Workshop on FSMNLP*, pages 10–19. ACL.

Lamont, A. (2019). Precedence is pathological: The problem of alphabetical sorting. In Stockwell, R., O'Leary, M., Xu, Z., and Zhou, Z., editors, *Proceedings of the 36th West Coast Conference on Formal Linguistics*, pages 243–249.

Lamont, A. (2021). Optimizing over subsequences generates context-sensitive languages. *Transactions of the Association for Computational Linguistics*, 9:528–537.

Lamont, A. (2022). Optimality theory implements complex functions with simple constraints. *Phonology*, 38(4):729–740.

Riggle, J. (2004). *Generation, Recognition, and Learning in Finite State Optimality Theory*. PhD thesis, UCLA.