

1-4 Introduction to the phonetic analysis of sound change (4)

Essential background reading

Beddor, (2023). Advancements of phonetics in the 21st century: Theoretical and empirical issues in the phonetics of sound change. *Journal of Phonetics*, 97, 101228.

beddor2023.jop.pdf

Garrett, A. & Johnson, K. (2013). Phonetic bias in sound change. In A. Yu (Ed.) *Origins of Sound Change*. Oxford University Press: Oxford. (p. 51–97). **garrett2011.pdf**

Harrington, J., Kleber, F., Reubold, U., Schiel, F. & Stevens, M. (2019): [The phonetic basis of the origin and spread of sound change](#). In W. Katz & P. Assmann (eds.), *The Routledge Handbook of Phonetics*. Oxford: Routledge, pp. 401–426.

Harrington, J. & Stevens M. (2014): [Cognitive processing as a bridge between phonetic and social models of sound change](#). *Journal of Laboratory Phonology*, 5(1), pp. 1–8.

Kirby, J. & Harrington, J. (in press). Acoustic-perceptual factors in the actuation of sound change. In *The Wiley Blackwell Companion to Diachronic Linguistics* **kirby2025.pdf**

Lindblom, B. (1988). Phonetic invariance and the adaptive nature of speech. In B. Elsendoorn and H. Bouma (eds.) *Working Models of Human Perception*. Academic Press: London. (p. 139–173). **lindblom1988.pdf**

Ohala, J. (1988). Discussion of Lindblom's invariance and the adaptive nature of speech. In B. Elsendoorn and H. Bouma (eds.) *Working Models of Human Perception*. Academic Press: London. (p. 175–183). **lindblom1988.pdf**

Ohala, J. (1989). Sound change is drawn from a pool of synchronic variation. In L. Breivik and E. Jahr (eds.) *Language Change* (p. 173–198). De Gruyter: Berlin. **ohala1989.pdf**

Ohala, J. (1993). The phonetics of sound change. In C. Jones (Ed.) *Historical Linguistics: Problems and Perspectives*. Longman: London. (p. 237–278). **ohala1993.pdf**

Pierrehumbert, J. (2001). Exemplar dynamics: Word frequency, lenition, and contrast. In J. Bybee & P. Hopper (Eds.) *Frequency Effects and the Emergence of Lexical Structure*. John Benjamins: Amsterdam (p. 137–157). **pierrehumbert2001.pdf**

Stevens, M. & Harrington, J. (2014): [The individual and the actuation of sound change](#). *Loquens*, 1(1), e003.

Yu, A. & Zellou, G. (2019). Individual differences in processing: phonology. *Annual Review of Linguistics*, 5:6.1–6.20. **yu2018.arl.pdf**

Yu, A. (2023). The actuation problem. *Annual Review of Linguistics*, 9, 215–231. **yu2023.acl.pdf**

Other readings important for talks 1-4

Beddor, P., Brasher, A., & Narayan, C. (2007). Applying perceptual methods to phonetic variation and sound change. In M. J. Solé, et al. (Eds.) *Experimental Approaches to Phonology*. Oxford University Press: Oxford, pp. 127–143. **beddor2007.pdf**

Beddor, P. (2012). Perception grammars and sound change. In M. J. Solé & D. Recasens (Eds.) *The Initiation of Sound Change: Perception, Production, and Social factors*. John Benjamin: Amsterdam, pp. 37–55. **beddor2012.pdf**

Beddor, P. (2009). A coarticulatory path to sound change. *Language*, 85, 785–821. **beddor2009.language.pdf**

Beddor, P., Coetzee, A., Styler, W., McGowan, K., & Boland, E. (2018). The time course of individuals' perception of coarticulatory information is linked to their production: Implications for sound change. *Language*, 94, 931–968. **beddor2018.language.pdf**

Beddor, P., McGowan, K., Boland, J., Coetzee, A., & Brasher, A. (2013). The time course of perception of coarticulation. *Journal of the Acoustical Society of America*, 133, 2350–2366. **beddor2013.jasa.pdf**

Lindblom, B., Guion, S., Hura, S., Moon, S. J., & Willerman, R. (1995). Is sound change adaptive? *Rivista di Linguistica*, 7, 5–36. **lindblom1995.rivling.pdf**

Ohala, J. (1991). Nasal epenthesis in Hindi. *Phonetica*, 48, 207–220. **ohala1991.phonetica.pdf**

Ohala, J. (1990). The phonetics and phonology of aspects of assimilation. In J. Kingston & M. Beckman (eds.) *Papers in Laboratory Phonology 1*. Cambridge University Press: Cambridge. (p. 258–275). **ohala1990.pdf**

Ohala, J. (1990). A response to Pierrehumbert's commentary. In J. Kingston & M. Beckman (eds.) *Papers in Laboratory Phonology 1*. 276–279. Cambridge University Press: Cambridge. (p. 280–282). **ohala1990.pdf**

Pierrehumbert, J. (1990). On the value of reductionism and formal explicitness in phonological models: comments on Ohala's paper. In J. Kingston & M. Beckman (eds.) *Papers in Laboratory Phonology 1*. Cambridge University Press: Cambridge. (p. 276–279). **ohala1990.pdf**

Tonogenesis (4)

5. Hombert, J.-M., Ohala, J., and Ewan, W. (1979). Phonetic explanations for the development of tone. *Language*, 55, 37–58. **hombert1979.pdf**

6. Kirby, J. & Ladd, D. (2016). Effects of obstruent voicing on vowel F0: Evidence from “true voicing” languages. *Journal of the Acoustical Society of America*, 140, 2400–2411.

kirby2016.jasa.pdf

7. Coetzee, A. W., Beddor, P. S., Shedden, K., Styler, W., & Wissing, D. (2018). Plosive voicing in Afrikaans: Differential cue weighting and tonogenesis. *Journal of Phonetics*, 66, 185–216.

coetzee2018.jop.pdf

8. Gao, J. & Kirby, J. (2024). Laryngeal contrast and sound change: the production and perception of plosive voicing and co-intrinsic pitch. *Language*, 100, 124-158.

gao2024.language.pdf

Vowel nasalization and sound change (4)

9. Goodin-Mayeda, C. (2011). Perceptual compensation for acoustic effects of nasal coupling by Spanish and Portuguese listeners. In S. Alvord (ed.) *Selected Proceedings of the 5th Conference on Laboratory Approaches to Romance Phonology*. Cascadia: Somerville, MA. (p. 75-83). **goodin-mayeda2011.pdf**

10. Cunha, C., Hoole, P., Voit, D., Frahm, J., Harrington, J. (2024). [The physiological basis of the phonologization of vowel nasalization: A real-time MRI analysis of American and Southern British English](#). *Journal of Phonetics*, 104, 101329.

11. Zellou, G. (2024). Apparent-time variation in the use of multiple cues for perception of anticipatory nasal coarticulation in California English. *Glossa*, 9, 1-29. **zellou2024.glossa.pdf**

12. Krakow, R., Beddor, P., and Goldstein, L. (1988). Coarticulatory influences on the perceived height of nasal vowels. *Journal of the Acoustical Society of America*, 83, 1146-1158. **krakow1988.jasa.pdf**

Vowels and sound change (8)

VCV coarticulation (1)

13. Greca, P., Gubian, M., & Harrington, J. (2024). [The relationship between the coarticulatory source and effect in sound change: Evidence from Italo-Romance metaphony in the Lausberg area](#). *Laboratory Phonology: Journal of the Association for Laboratory Phonology*, 15, 1–54.

Vowel chain shifting in New Zealand English (2)

14. Watson, C., Maclagan, M. & Harrington, J. (2000): [Acoustic evidence for vowel change in New Zealand English](#). *Language Variation and Change*, 12, 51-68.

15. Maclagan, M. & Hay, J. (2007). Getting fed up with our feet: Contrast maintenance and the New Zealand English “short” front vowel shift. *Language Variation and Change*, 19, 1-25. **maclagan2007.lvc.pdf**

/u/-fronting (5)

16. Kataoka, R. (2009) A Study on perceptual compensation for /u/-fronting in American English. *UC Berkeley Phonology Lab Annual Report*, 210-223. **kataoka2009.pdf**

17. Jansen, S. & Mompean, J. (2023). GOOSE-fronting in Received Pronunciation across time: a trend study. *Language Variation and Change*, 35, 55-77. **jansen2023.lvc.pdf**

18. Harrington, J., Kleber, F., and Reubold, U. (2008). [Compensation for coarticulation, /u/-fronting, and sound change in Standard Southern British: an acoustic and perceptual study](#). *Journal of the Acoustical Society of America*, 123, 2825-2835.

19. Sóskuthy, M., Foulkes, P., Hughes, V., and Haddican, B. (2018). Changing words and sounds: The roles of different cognitive units in sound change. *Topics in Cognitive Science*, 10, 787-802. **soskuthy2018.cogsci.pdf**

Consonants and sound change (10)

Clicks and epenthetic stops (2)

20. Ohala, J. (1995). A probable case of clicks influencing the sound patterns of some European languages. *Phonetica*, 52, 160–170. **ohala1995.phonetica.pdf**

21. Warner, N. & Weber, A. (2001). Perception of epenthetic stops. *Journal of Phonetics*, 29, 53-87. **warner2001.jop.pdf**

Dissimilation (2)

22. Hall, N., Godinez, B., Walsh, M., Orellana, I. and Villegas, C. (2019). Evidence for perceptual hypercorrection in American r-dissimilation: a pilot study. 2019. Proceedings of the Linguistic Society of America 4.52, 1–12. **hall2019.pdf**

23. Jatteau, A. & Hejná, M. (2016). Dissimilation can be gradient. *Papers in Historical Phonology*, 1, 359-386. **jatteau2016.pdf**

Metathesis (2)

24. Cronenberg, J., Gubian, M., Harrington, J., and Ruch, H. (2020). [A dynamic model of the change from pre- to post-aspiration in Andalusian Spanish](#). *Journal of Phonetics*, 83. <https://doi.org/10.1016/j.wocn.2020.101016>

25. Ruch, H. (2018). Perception of speaker age and speaker origin in a sound change in progress: The case of /s/-aspiration in Andalusian Spanish. *Journal of Linguistic Geography*, 6, 40-55. **ruch2018.pdf**

/s/ retraction (4)

26. Bukmaier, V., Harrington, J., and Kleber, F. (2014). [An analysis of post-vocalic /s/-/neutralization in Augsburg German: evidence for a gradient sound change](#). *Frontiers in Psychology*, 5, 1-12.

27. Stevens, S. & Harrington, J. (2016). [The phonetic origins of /s/-retraction: acoustic and perceptual evidence from Australian English](#). *Journal of Phonetics*, 58, 118–134.

28. Bailey, G., Nichols, S. & Turton, D., & Baranowski, M. (2022). Affrication as the cause of /s/-retraction: Evidence from Manchester English. *Glossa*, 7, 1–30. **bailey2022.glossa.pdf**

29. Stevens, M. & Harrington, J. (2022). [Individual variation and the coarticulatory path to sound change: agent-based modeling of /str/ in English and Italian](https://doi.org/10.16995/glossa.8869). *Glossa*, 7(1). doi: <https://doi.org/10.16995/glossa.8869>