Low-level and Experimental Phonetics in Historical Phonology

Organizers
Lorenzo Maselli (maselli.lorenzo@tufs.ac.jp), Universiteit Gent / 東京外国語大学 / Université de Mons
Sara Pacchiarotti (sara.pacchiarotti@ugent.be), Universiteit Gent

The relationship between phonetics and historical phonology has changed over decades of scientific linguistic investigation (Ohala 2017). In pre-structuralist and early structuralist thought, phonetics was primarily associated with diachrony and sound change (Osthoff & Brugmann 1878, Trubetzkoy 1939, Lehmann 1967, Jankowsky 1999) and was largely not treated as a potentially autonomous sub-discipline of linguistics (with some exceptions, notably Sievers 1881, Rousselot 1891). Saussure's (1916) seminal distinction between what we now call phonology as the organisation of paradigms in a synchronic system and phonetics as their physical implementation susceptible to change in time did not challenge this post-Neogrammarian conception (Kiparsky 1974, Murray 2015).

The establishment of experimental and quantitative phonetics from the mid-twentieth century onwards considerably expanded the scope of the relationship between diachronic phonology and phonetics proper (Malmberg 1969, Ohala 1974, Mann & Repp 1981, Beddor et al. 1986, Kohler 2000, Stuart-Smith 2004). Low-level and instrumental approaches have provided new ways of addressing old questions in historical phonology, while the emergence of Laboratory Phonology and Articulatory Phonology (Kingston & Beckman 1990, Browman & Goldstein 1992, Pierrehumbert et al. 2000) has blurred the boundary between phonetic and phonological analysis. Phonetics has moved beyond providing evidence for independently formulated historical hypotheses: fine-grained acoustic, articulatory, and aerodynamic data can show patterns of variation and thereby contribute to developing new hypotheses about sound change (Janda & Joseph 2003, Demolin 2005). Part of this epistemological turn revolves around what Kiparsky (2015) calls "the constraints problem," i.e. whether plausible sound changes should be grounded in "phonetic naturalness," despite challenges to this teleological view (Zhang 2004, Blust 2005, Blevins 2007, 2008). Work on the origins and development of tone (Haudricourt 1954, Thurgood 2002; see also Öhman 1967) or labial-velar articulations in African languages (Connell 1998/1999, Maselli et al. 2023) provide a couple of examples of research resulting from this turn, but several more can be found.

This workshop aims to bring together researchers interested in phonetically informed historical linguistics. We particularly invite work using instrumental methods to investigate diachronic phonology from a synchronic-phonetic perspective, especially in underdescribed and minority languages / language groups. The workshop is interested in the following research questions:

- What is "phonetic naturalness" in sound change? How can low-level and experimental phonetics contribute to diachronic-phonological analyses based on the notion of "phonetic naturalness?"
- Is there a shared basis for defining "phonetic naturalness" across language families? Or are there genetic/genealogical/geographical constraints on what is considered phonetically natural in sound change?
- Should sound change always be (phonetically) motivated?
- How do available phonetic analyses fare in accounting for sound changes considered "unusual?"

- How can competing historical-comparative hypotheses about sound change be informed by low-level phonetic studies?
- Can low-level phonetic studies help formulate hypotheses about sound change?

We particularly encourage prospective speakers to submit:

- Contributions on attested phonetic pathways of sound change that bear on the question of "phonetic naturalness;"
- Contributions on phonetic analyses of unusual or hard-to-motivate sound changes;
- Studies of synchronic variation as evidence for diachronic processes;
- Articulatory, acoustic, aerodynamic, or other instrumental-phonetic analyses of historical-linguistic questions;
- Studies of tonogenesis and other processes of sound-system change triggered by identifiable articulatory dynamics;
- Contributions presenting experimental-phonetic and -phonological approaches to language reconstruction;
- Historical-linguistic contributions that adopt an explicit laboratory-phonological or articulatory-phonological framework;
- Historiographical appraisals of the within-discipline debate about the themes of this workshop.

We welcome contributions from any framework and on any language family, but especially encourage those on lesser known languages and/or less represented geographical regions.

References

Beddor, P. S., R. A. Krakow, and L. M. Goldstein. 1986. "Perceptual constraints and phonological change: A study of nasal vowel height," in Phonology Yearbook 3, 197–217.
Blevins, J. 2007. "The importance of typology in explaining recurrent sound patterns," in Linguistic Typology 11 (1), 107–113.
Blevins, J. 2008. "Consonant Epenthesis: Natural and Unnatural Histories," in J. Good (ed.), Linguistic Universals and Language Change (Oxford, 2008; online edn, Oxford Academic, 1 May 2008), https://doi-org.libugent.idm.oclc.org/10.1093/acprof:oso/9780199298495.003.0004, accessed 14 Sept. 2026.
Blust, R. 2005. "Must sound change be linguistically motivated?," in Diachronica 22 (2), 219–269. // Browman, C. P., and L. Goldstein. 1992. "Articulatory phonology: An overview," in Phonetica 49 (3–4), 155–180.
Connell, B. 1998/1999. "Feature geometry and the formation of labial-velars: A reply to Mutaka and Ebobissé," in Journal of West African Languages 27 (1), 17–32.
Demolin, D. 2005. "The integration of phonetics and phonology," in Estudos Lingüísticos 34 (1): 95-104.
Haudricourt, A.-G. 1954. "De l'origine des tons en vietnamien," in Journal Asiatique 242, 69–82.
Janda, R. D., and B. D. Joseph. 2003. "On language, change, and language change-or, of history, linguistics, and historical linguistics," in B. D. Joseph and R. D. Janda (eds.), The Handbook of Historical Linguistics, Oxford: Blackwell, 3–180.
Jankowsky, K. R. 1999. "Sound physiology in the making: On the role of Henry Sweet (1845–1912) and Eduard Sievers (1850–1932) in the development of linguistic science," in S. Embleton, J. E. Joseph, and H.-J. Niederehe (eds.), Emergence of the Modern Language Sciences, vol. 1. Amsterdam: John Benjamins, 77–87.

Kingston, J. C., and M. E. Beckman (eds.). 1990. Papers in Laboratory Phonology I: Between the Grammar and Physics of Speech, Cambridge: Cambridge University Press.
Kiparsky, P. 1974. “From paleogrammarians to neogrammarians,” in D. Hymes (ed.), Studies in the History of Linguistics: Traditions and Paradigms, Bloomington: Indiana University Press, 331–345.
Kiparsky, P. 2015. “New perspectives in Historical Linguistics,” in C. Bowern and B. Evans (eds.), The Routledge Handbook of Historical Linguistics, London/New York: Routledge, 64–102. // Kohler, K. J. 2000. “The future of phonetics,” in Journal of the International Phonetic Association 30 (1–2), 1–24.
Lehmann, W. P. 1967. A Reader in Nineteenth-Century Historical Indo-European Linguistics, Bloomington: Indiana University Press.
Malmberg, B. 1969. “Linguistic theory and phonetic methods,” in English Studies 50 (1–6), 417–435.
Mann, V. A., and B. H. Repp. 1981. “Perceptual assessment of fricative-stop coarticulation,” in Journal of the Acoustical Society of America 69 (4), 1154–1163.
Maselli, L., V. Delvaux, J. P. Donzo, S. Pacchiarotti, and K. Bostoen. 2023. “Labial-velar stops in Sakata (Bantu C34): Preliminary phonetic and phonological observations,” in Studies in African Linguistics 52 (1–2), 125–147.
Murray, R. W. 2015. “The early history of historical phonology,” in P. Honeybone and J. Salmons (eds.), The Oxford Handbook of Historical Phonology, Oxford: Oxford University Press, 11–31.
Ohala, J. J. 1974. “Experimental historical phonology,” in J. M. Anderson and C. Jones (eds.), Historical Linguistics II: Theory and Description in Phonology. Proceedings of the First International Conference on Historical Linguistics, Edinburgh, 2–7 September 1973, Amsterdam: North-Holland, 353–389.
Ohala, J. J. 2017. “Phonetics and historical phonology,” in B. D. Joseph and R. D. Janda (eds.), The Handbook of Historical Linguistics, Wiley-Blackwell, 667–686.
Öhman, S. 1967. “Word and sentence intonation: A quantitative model,” in STL-QPSR 8 (2–3), 20–54.
Osthoff, H., and K. Brugmann. 1878. “Morphologische Untersuchungen auf dem Gebiete der indogermanischen Sprachen”, vol. 1. Leipzig: S. Hirzel.
Pierrehumbert, J., M. E. Beckman, and D. R. Ladd. 2000. Conceptual foundations of phonology as a laboratory science,” in N. Burton-Roberts, P. Carr, and G. Docherty (eds.), Phonological Knowledge: Conceptual and Empirical Issues, Oxford: Oxford University Press, 273–304.
Rousselot, P.-J. 1891. “Les modifications phonétiques du langage, étudiées dans le patois d’une famille de Cellefrouin (Charente),” Paris: H. Welter.
Saussure, F. de. 1916. “Cours de linguistique générale”, ed. C. Bally and A. Sechehaye, Lausanne: Payot.
Sievers, E. 1881. “Grundzüge der Phonetik zur Einführung in das Studium der Lautlehre der indogermanischen Sprachen”, 2nd ed. Leipzig: Breitkopf & Härtel.
Stuart-Smith, J. 2004. “Phonetics and Philology: Sound Change in Italic,” Oxford: Oxford University Press.
Thurgood, G. 2002. “Vietnamese and tonogenesis: Revising the model and the analysis,” in Diachronica 19 (2), 333–363.
Trubetzkoy, N. S. 1939. “Grundzüge der Phonologie,” Göttingen: Vandenhoeck & Ruprecht.
Zhang, J. 2004. “The role of contrast-specific and language-specific phonetics in contour tone distribution,” in B. Hayes, R. Kirchner, and D. Steriade (eds.), Phonetically-based phonology, 157-190, Cambridge: Cambridge University Press.