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Lenition and fortition in world's languages

New interdisciplinary insights

Keywords: phonetic variation, laboratory phonology, corpus linguistics, lenition, fortition, automatic modeling

The workshop "Lenition and fortition in world's languages: new interdisciplinary insights" will bring together interdisciplinary research dedicated to phonetic variation in multilingual corpora, with a particular focus on the phenomena of lenition and fortition. Lenition and fortition are two of the most common phonetic variation processes in the world's languages. Lenition (from Latin lenire = weaken) is most commonly defined as a 'relaxation' or 'weakening' of articulatory effort [Gurevitch 2004]. A less consensual process than lenition, fortition has been described by some authors as the opposite variation phenomenon [Bybee & Easterday, 2019]. On the linguistic side, both processes and in particular lenition, have benefited over years of a large body of work from various perspectives including phonology [e.g. Honeybone 2008], laboratory phonology [e.g. Hualde et al. 2011] and more recently speech processing [e.g. Ryant & Liberman 2016, Vasilescu et al. 2018], both using synchronic (see studies below) and diachronic data [Cecelevski et al. 2024].

The approaches to study phonetic variation including those dedicated to lenition and fortition are increasingly interdisciplinary. The "big data revolution" that reached the humanities in the last decades has opened new research avenues for phonetics and laboratory phonology by using speech technology methods and tools, such as speech recognition systems, and machine learning techniques to investigate large amount of data previously impossible to process by hand and to answer classical linguistics questions [Coleman et al. 2011]. Such interdisciplinary approaches have built on the hypothesis that the large scale, multilingual studies of phonetic variation explored with new automatic tools highlight both the universal and the language specific patterns of synchronic variation, help in understanding historical processes for which we lack information on the actual evolution, and provide reliable criteria for hypotheses of ongoing and/or future sound changes. This approach has led to new results with respects to lenition and fortition patterns of variation in a variety of languages [Jatteau et al. 2019, Vasilescu et al. 2020, Wu et al. 2022, Hutin et al. 2022, Popescu et al. 2023, Cronenber et al. 2024, Popescu et al. 2024 etc.]. Findings concerns for instance contextual patterns of lenition across Romance Languages using large scale corpora and speech recognition tools to consonants lenition, typological vs genetic patterns wrt lenition of fricatives in Portuguese, patterns of vocalic lenition across Romance languages. Studies cited above are based on corpora ecologically "diverted" from their original purpose, as data consist mainly of broadcast corpora collected with initial speech technology purposes. These studies demonstrate both the interest of multilingual and diverse corpora and of interdisciplinary approaches in processing (generally) heterogeneous data and modelling phonetic variation phenomena. In return, studies on variation and the rules that govern it can contribute to better modelling such events that still affect automatic systems [Benzeghiba et al. 20017, Vasilescu et al. 2018]. However, the above results and in general the interdisciplinary studies relying on quantitatively significant corpora and on automatized techniques concerns mainly European and in particular Romance languages.

The workshop is designed to bring together latest research dedicated to lenition and fortition in a variety of languages and from diverse corpora and calling on interdisciplinary approaches in both humanities (phonetics, laboratory phonology, corpus linguistics, typology) and digital sciences.

We welcome contributions that address the following main questions without being limited to:

1. New data: new corpora dedicated to phonetic variation focusing on lenition and fortition or allowing to investigate the targeted phenomena

2. Beyond Romance/European domains: new approaches and findings on lenition and fortition in world's languages

3. Beyond lenition and fortition: extrapolating findings on the selected phenomena to other reduction/strengthening phenomena

4. Inter- and transdisciplinary aims: paving the way for new theories, approaches and tools for documenting and modelling variation in linguistics and NLP

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