

## SOUND CHANGE FROM LATIN TO SPANISH: THE EMERGENCE OF TRILLS

Diachronic studies in Spanish describe two kinds of rhotic elements in Latin: a geminate /rr/ and a simple /r/. These would contrast in intervocalic position. In the general process of degemination from Latin to Spanish, geminate rhotics would be strengthened into a trill sound to avoid the confusion with the tap /r/, which can appear in the same context. As a result of this change, a new opposition is generated: a tap /r/ (*vibrante simple*) vs. a trill /r/ (*vibrante multiple*). These kinds of descriptions, though, do not account for the phonetic reasons of this change.

The goal of this work is to find an explanation to the evolution of geminate rhotics from Latin to Spanish from a phonetic point of view. For this purpose, it focuses on three main aspects: the nature of Latin geminate rhotic, the degemination process implied in this sound change, and the reason why the final solution turned out to be a trill.

Recent research in sound change has pointed out that the study of synchronic properties of speech sounds and processes arising in spontaneous speech can be equivalent to the diachronic ones (cf. Blevins, Ohala, Recasens, etc.). Along these lines, our study starts out with the phonetic description of present Spanish rhotics and its variation, in order to establish the possible acoustic cues of the geminate rhotic in Latin, which is the starting point of the evolution. In view of different reasons, the hypothesis put forward here is that there could be a sequence of two taps with a brief vocalic element between them, and not a lengthened realisation of a single [r], as other geminate sounds are supposed to be. As a result, the acoustic structure would be very similar to that of a trill, despite important articulatory differences between them.

The further change to the production as a trill would be due to articulatory and perceptual factors. It will be defended that the sequence of two brief closures is easier to produce making use of the aerodynamic conditions, such as in trills (minimal articulatory effort), even in spite of the high precision control of airflow needed for trilling. On the other hand, this strengthening makes it more distinct from the tap from a perceptual viewpoint (sufficient discriminability).

Even though this study is meant to be taken as a first approach to the topic, it will be further developed in future research, since the proposal presented here differs significantly from other diachronic works in Spanish in that they do not offer the structure of the geminate rhotic and, hence, cannot explain the step between this sound and the present trill.