

On the Coda Weakening of Rhotics in Brazilian Portuguese

Iiris Rennieke (University of Helsinki), iiris.rennicke@helsinki.fi

Thaís Cristófaró Silva (Universidade Federal de Minas Gerais), thaiscristofaro@gmail.com

This paper investigates sound changes involving rhotics in syllable final position in Brazilian Portuguese (BP). Like other Iberian Romance languages, BP has two rhotics, weak-r (alveolar tap) and strong-R (mainly back fricatives), that contrast intervocalically. However, unlike other Iberian Romance languages, BP may present not only the weak-r in syllable coda, but also strong-R and other rhotic sounds, and this variation will be the focus of this paper. Assuming the theoretical perspectives of Exemplar Models (Johnson 1997; Pierrehumbert 2001; Foulkes and Docherty 2006) and Complex Adaptive Systems (Ellis and Larsen-Freeman 2006; Bybee 2010) we will show that sound changes involving rhotics in BP codas are better understood in terms of general pathways of sound change that operate in the language, namely the tendency to segment weakening in codas and unstressed syllables. We will address the following questions: 1) Why does coda position present weakening? 2) What is the end result in the coda weakening of rhotics?

The results to be presented come from data collected in the city of Lavras, Southern Minas Gerais, from 14 subjects (7 women, 7 men) through a sentence completion task yielding 753 tokens for acoustic analysis. Answering question 1, we suggest that coda weakening follows from a tendency in BP to weaken segmental material in unstressed positions. Furthermore, the gestural configurations in coda are less synchronous than in onset position, which may contribute towards lenition in coda (Bybee (2001: 87).

Regarding the second question we posited, we found that in word-medial codas and word-final codas a wide range of segments is observed. Except for the final rhotic that manifests primarily as a tap when followed by a vowel, the other coda environments present great variability ranging from approximants to back fricatives and deletion. We suggest that coda weakening involving rhotics reflects a general tendency in BP to reduce the gestural magnitude in codas, leading towards the deletion of coda rhotics and, consequently, to open syllables. This pathway can also be observed, for instance, in the deletion of nasal consonants in coda and nasalization of the preceding vowel, and in the vocalization of coda laterals. Thus, coda variation reflects the instability of the system with respect to consonants in coda, and an emerging pattern of lexical items ending in vowels.

There is considerable inter-speaker variation in the data that will also be addressed. We suggest that an exemplar-based approach to phonetic variation could explain idiolectal variation related to sociolinguistic phenomena, as well as the perception of articulatorily and acoustically diverse rhotic variants.

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