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**THE PHONETICS AND PHONOLOGY OF
RHOTIC DURATION CONTRAST AND NEUTRALIZATION**

A Thesis in

Spanish

by

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ABSTRACT

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A number of the world's languages exhibit a phonological duration-based contrast between an extra-short coronal tap and a sustainable multiple-cycle trill. The post-SPE generative literature has focused almost entirely on the distribution of rhotics in Iberian Romance, and Spanish in particular. The main empirical goal of this dissertation is to demonstrate how Iberian Romance fits in among a broader typology of rhotic patterns. Relevant data from Spanish, Catalan, European Portuguese, Basque, Sebei, Kaliai-Kove, Kairiru, Palauan, Kurdish, and Ngizim suggest an implicational hierarchy of the form intervocalic < word-initial < elsewhere (word-final, pre- and postconsonantal), where rhotic duration contrast in a given position entails contrast in positions to the left. Further generalizations are uncovered with respect to patterns of neutralization. The theoretical goal of this dissertation is to develop a comprehensive analysis of the complete rhotic duration typology.

Chapter 1 introduces the analytical framework of phonetically-based Optimality Theory, focusing specifically on Correspondence Theory, the Dispersion Theory of

contrast, Segmental Autonomy, and Licensing by Cue, and then gives a preview of the proposed analysis.

Chapter 2 demonstrates how contemporary generative accounts have consistently invoked syllable structure and/or sonority in attempts to explain the distribution of the tap and trill in Spanish. Data are then presented from languages beyond Spanish in order to show that not all aspects of the behavior of these rhotics can be adequately captured with reference to syllable structure alone, thereby setting the stage for the phonetically-based Optimality-theoretic analysis.

Chapter 3 develops an account of the rhotic duration typology, with Spanish serving as the primary example. On this account, phonetic and phonological constraints interact directly to determine the surface distribution of rhotics without reference to syllable boundaries. Since reference to syllable structure is unnecessary, the analysis does not face the same difficulties as existing prosodic accounts when data beyond Spanish are taken into consideration.

Chapter 4 presents an empirical survey of languages beyond the Iberian Romance family and documents several heretofore unnoticed generalizations regarding the positional neutralization of rhotic duration contrast. These generalizations are then shown to follow straightforwardly as a consequence of constraint interaction under the phonetically-based OT analysis developed in Chapter 3.

Finally, Chapter 5 treats issues of phonological representation by focusing on the ambiguous nature of the surface trill, which patterns sometimes as a single unit and sometimes as a cluster of taps. Specifically, it is argued that a morphologically-derived

sequence of taps is neutralized to trill by dint of a targeted constraint enforcing coalescence of adjacent rhotics. Chapter 5 concludes by summarizing the main results of the dissertation and by outlining some issues for future research.

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