# Dissertation abstract

## Phonological Nativization of Arabic, Portuguese and English Loanwords in Odia (Ph.D. dissertation). IIT Madras, India, 2011. Pp. 335

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*PhD Dissertation Abstract*

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Languages come into contact through invasion, war, colonization, migration, trade and commerce between different communities. In India, for example, the Arab invasion of Sindh brought in the languages of the Arab world, such as Arabic, Turkish and Persian. Later, Portuguese, Dutch and English trading companies dominated the field of trade and commerce and successfully spread their languages in the Indian sub-continent. As a result, almost all Indian languages have borrowed words from these foreign languages and enriched their vocabularies. Like other languages in India, Odia, an Eastern Indo-Aryan language, which is spoken in the Indian territory of Odisha, came into contact with Arabic, Persian, Portuguese and English, and has borrowed several words from these languages.

In a language contact situation, speakers may nativize the borrowed words by either adopting or adapting their phonological features. The speakers of a borrowing language may rearrange the segmental and prosodic features of borrowed words in a manner that neither conforms to the

phonological system of the borrowing language nor the source languages. To understand the process of nativization of borrowed words, the present study has analyzed the segmental and prosodic features of loanwords from Arabic, Portuguese and English in Odia by comparing them with their counterparts in the source languages, within the framework of the Optimality Theory.

The study seeks to understand whether Odia speakers retain the phonological features of the borrowed words, or apply the segmental and prosodic features of Odia in the process of adaptation, or else rearrange the segmental and prosodic features of borrowed words in a unique manner, different from both Odia and the source languages. To answer these questions, the study has examined the segments, syllables and peak prominence of loanwords.

The study is an empirical and analytical work, based on the recorded speech of loanwords gathered through field surveys. About 124 loanwords from Arabic, 64 from European Portuguese (EP) and 343 from English were recorded, from seventy Odia speakers who belong to four districts of Odisha – Khorda, Cuttack, Kendrapara, and Jagatsinghpur. Data were tabulated and analyzed by applying the framework of constraint-based Optimality Theory. The loanwords from each of the source languages, namely Arabic, Portuguese and English were thus analyzed and inferences were drawn on the basis of comparison between source words and loanwords.

The results of the study show that Odia speakers nativize Arabic, Portuguese and English borrowed words by modifying the segmental features, syllable structures and prosodic features through the following processes: (i) substitution of Odia consonants and vowels for source language consonants and vowels, (ii) simplification of complex clusters of source words to avoid heavy and super heavy syllables, (iii) conversion of source word glides into vowels, (iv) conversion of EP nasal vowels into oral vowels (v) reduction of Arabic and English long vowels to short vowels, (vi) conversion of EP and English diphthongs into monophthongs, through the formation of vowel hiatus, (vii) conversion of monosyllabic or bimoraic minimal size of Arabic, Portuguese and English words into minimal disyllabic loanwords, and (viii) shifting of the final peak prominence of Arabic, Portuguese and English words to the non-final position in loanwords. These processes, which modify or alter the phonology of borrowed words, may be broadly categorized as substitution, insertion, deletion and resyllabification of segments. Examining the phonotactic patterns, syllable structures and prosodic units, the present study found that (i) some consonantal sequences, (ii) bimoraic heavy syllable structures, (iii) bimoraic feet and (iv) heavy syllabic peak prominence are adopted from source words and preserved in loanwords in Odia. Further, the study reveals the fact that (i) the change of glides to vowels, (ii) the formation of vowel hiatus, (iii) the degemination of geminated clusters, (iv) the formation of catalectic mora and (v) the change of oral vowels to nasal vowels are some of the phonological

innovations which are neither a part of the phonology of Odia, nor the phonology of the source languages – Arabic, Portuguese and English. These features are categorized as novel phonological features in the adaptation of loanwords in Odia. The study has shown that the adaptation of borrowed words makes loanwords an integral part of the borrowing language, whereas phonological innovations and adoptions exhibit loanword phonology distinct from the phonology of the borrowing language. Indeed, the innovative and adoptive features are maximally tolerated by the borrowing language as 'peripheral' features while the 'core' features are kept distinct. Considering the overall outcome of this study, it can be observed that Odia has an integrated system of loanword phonology, which exhibits phonological adaptation, adoption and innovation of loanwords. The adoptive and innovative features, which are marked but tolerable in Odia, are systematic rather than random. A significant finding in terms of the phonological nativization of borrowed words, in the majority of cases, is the structural deviation between the input source words and their loanword counterparts in Odia.

Considering these results and findings, the study concludes that if the segmental and prosodic features of source languages differ from those of the borrowing language, the borrowed words are nativized by the speakers of the borrowing language through adaptation, innovation and adoption. The results of the study throw light on loanword phonology. Some implications of the findings, some limitations of the study as well as directions for future research are discussed in the thesis.

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