

A Phonetic and Phonological Analysis of Word-Final Post-Geminate Schwa Insertion in Modern Standard Persian

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Abstract

Word-final geminates in Modern Standard Persian (MSP) are only observed in Arabic loanwords. After some of these geminates, a vocoid is produced. In the current study, I aimed to conduct a phonetic and phonological analysis of this word-final post-geminate vocoid. The questions I addressed are the following: I. What are the acoustic features of this vocoid? II. After which word-final geminates does this vocoid appear more frequently? III. Does this vocoid play a phonological role in MSP? And is this vocoid production involved with the insertion processes or deletion? To find the answers to the first two questions, I made an acoustic analysis on the speech of two native speakers of MSP, which revealed that this post-geminate vocoid has the formant frequencies of a schwa [ə], and it always appears after sonorant geminates, almost always after voiced obstruent geminates, after some voiceless obstruent geminates, and never after [ss], [ʃʃ], and [hh]. Then, to inquire about the third question, I explored if this schwa contributed to the syllabification, by asking MSP speakers to syllabify the words. The results revealed that the word-final schwa was always involved in the syllabification except in words containing [ʃʃ] and [hh], and thus, it plays a phonological role in MSP. Finally, I made an analysis of the presence and absence of this word-final post-geminate schwa through Optimality Theory (OT), which attested an insertion process. Therefore, I concluded that this inserted schwa is an epenthetic vowel in MSP since it has a phonological role in this language (Hall: 2006).

Keywords: Word-final Geminates, Schwa Insertion, Modern Standard Persian, Optimality Theory.

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