

## Persian elides the second vowel

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**Introduction.** To resolve hiatus, languages usually elide the first vowel (Casali 1997). This paper provides evidence that in Persian, elision of the second vowel is instead preferred. We present results of a production and perception study that reveal a strong preference for elision in polysegmental suffixes, whereas hiatus is tolerated with monosegmental suffixes.

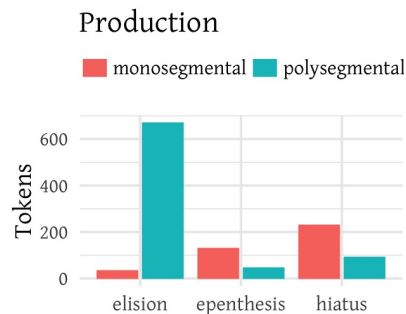
**Background.** Spoken Persian has many vowel-final roots and vowel-initial suffixes. This could result in frequent hiatus. An examination of the nominal (1) and verbal paradigms reveals that this is not always the case: elision of the second vowel ( $V_2$ ) is instead preferred, except in monosegmental suffixes where hiatus is preserved.

(1)		‘our’	‘his/her’	‘my’	‘the’	
	dæftær	dæftær-emun	dæftær-ef	dæftær-æm	dæftær-e	‘office’
	baba	baba-mun	baba-f	baba-m	baba-e	‘dad’
	polo	polo-mun	polo-f	polo-m	polo-e	‘rice’

This stands at odds with what we know about hiatus. First,  $V_2$  elision is cross-linguistically much rarer than  $V_1$  elision, even though top-ranked root faithfulness predicts  $V_2$  elision (Casali 1998, 2011). Second, hiatus in Persian is described as always resolved by epenthesis (Sadeghi 1986, Shaghghi 2000, Dehghan and Kord 2012) or elision (Jam 2015). Estaji et al. (2010) and Yazarlou (2014) suggest hiatus is retained in fast speech. To explore hiatus further, we ran two experiments.

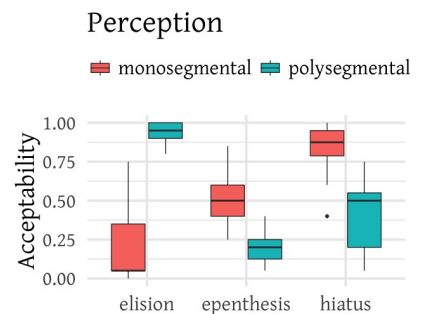
**Production.** The stimuli consisted of 269 words (V-final roots followed by V-initial suffixes), which were selected depending on the following variables:  $V_1$ ,  $V_2$ , lexical category (native words and established loans, recent loans, nonce words), and suffix length (1, 2 or 4 segments). The productions of 7 participants were categorized into three categories ( $V_2$  elision, hiatus, epenthesis) by a native speaker based on the acoustic analysis. Here we report the results by suffix length. Figure 1 shows that elision is preferred over hiatus and epenthesis in polysegmental suffixes, whereas hiatus is the most common with monosegmental suffixes. There is also some variation (omitted for brevity). In particular, hiatus can often be tolerated in polysegmental suffixes.

**Perception.** Next we explore whether the production is reflected in perception. The auditory stimuli were 90 nonce words that were controlled for suffix length (1, 2 or 4 segments), three conditions (hiatus, elision, epenthesis) and 6 suffixes. Each of the 20 native speakers heard 30 nonce-word pairs (bare root + derived form), each under three conditions (randomized). The participants were asked to judge whether each pair of words was acceptable or unacceptable. The results presented in Figure 2 indicate that  $V_2$  elision is preferred in polysegmental suffixes whereas hiatus is preferred with monosegmental suffixes. Epenthesis has intermediate ratings with monosegmental suffixes, but the lowest ratings with polysegmental suffixes. The preliminary results of both experiments are consistent and reveal that  $V_2$  elision is fully productive. A mixed-effects logistic regression model confirms that the suffix length is a significant predictor ( $p < 0.001$ ).



← Figure 1: Attested productions across all participants, depending on suffix length.

→ Figure 2: Mean acceptability ratings by item across all participants, depending on suffix length.



**Conclusions.** This study shows that  $V_2$  elision is the default strategy of hiatus resolution in Spoken Persian. Hiatus is retained if the suffix would be otherwise deleted entirely, under the pressure to retain lexical contrast. Our study is the first to confirm  $V_2$  elision in production *and* perception, in any language.

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