

Asymmetries in Word-final Schwa Realization in French

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Few phenomena have garnered as much attention in the phonological literature as the French schwa. The schwa in French is a vowel of limited phonological distribution (*əC, *Və, *əV) characterized by its complex alternation with zero which appears to be conditioned by prosodic, segmental, phonetic, lexical, and sociolinguistic factors. This alternation is the product of both deletion and epenthesis processes shown in (1) and (2) respectively.

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| (1) <i>du sucre</i> | /dy sy.kʁə/ → [dy.sykʁ] | ('some sugar') |
| (2) <i>ours blanc</i> | /uʁs blɑ̃/ → [uʁ.sə.blɑ̃] | ('white bear') |

Schwa epenthesis and schwa deletion are both most commonly licensed word-finally and illustrate a peculiar asymmetry (Eychenne 2019). This paper presents the results of a quantitative analysis of the word-final schwa-zero alternation in Metropolitan French. Results of the present study suggest that despite high rates of schwa deletion, phonetically realized schwa usually corresponds to an etymological or lexical schwa. True schwa epenthesis is, therefore, exceedingly rare. Epenthetic and lexical schwa are subject to different linguistic distributions, which vary according to their phonotactic contexts and their distributions in the word. Overt lexical schwa enjoys a wide distribution with few restrictions, while epenthetic schwa is constrained in its realization. We interpret these results to suggest that what has historically been called the *schwa* in French is instead the manifestation of two distinct phonological phenomena: the lexical schwa and the epenthetic schwa and perhaps itself an epiphenomenon.

We approach the question of word-final schwa realization quantitatively through a comparison of the distributions of underlying (lexical) schwa and epenthetic schwa. Data for this study come from the *Projet Phonologie du français contemporain* (PFC) corpus (Durand et al. 2002), an oral corpus of spoken French containing approximately 1,500,000 words, in which all schwas are identified and annotated according to a specific protocol. The results of a random forest model in addition to a series of chi-squared tests found robust differences between the distributions of epenthetic and lexical schwa. First, epenthesis was only licensed word-finally. Next, almost all epentheses were licensed after singleton consonants: fifteen occurred after consonant clusters. Cluster-final words that took an epenthetic schwa fit into two categories: loanwords (i.e. *Ford*, *concept*, *hard*) or clusters containing /s/ (i.e. *Max*, *laps*, *x*). This argues against the commonly-held assumption that schwa epenthesis is commonly employed as a repair strategy for complex clusters. It would seem that the primary function of epenthesis is simply to open syllables. Epenthesis was also more likely to occur after less sonorous segments than phonetically realized lexical schwa ($W = 395928$; $p < .001$). Finally, epenthesis was more likely to occur phrase-finally ($\chi^2 = 58.892$; $df = 1$; $p < .001$). It has been suggested that phrase-final schwa epenthesis may function as a backchannel marker (Hansen & Hansen 2003). Current results reinforce this suggestion as approximately one-third of the epenthetic schwas occur tagged to the discourse particles (*donc*, *alors*, and *en fait*.)

To account for this asymmetry between word-final deletion and epenthesis, we expand upon a proposal by Côté (2007) who posits that there are minimality constraints on the prosodic word and the prosodic phrase: both the prosodic word and

phrase must consist of two syllables. The implication that lexical and epenthetic schwa have distinct linguistic distributions in French further our understanding of the types of prosodically weak segments a language may contain as well as the roles those segments can play in the overall phonological landscape.

References

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