

Full merger in progress: evidence from Dutch labiodental fricatives

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Previous studies have established that Dutch initial fricatives are involved in a sound change in progress. It has been shown that voiced initial labiodental fricatives /v/ are devoicing, slowly merging with their voiceless counterparts /f/, since they are produced with less voicing and longer durations. The devoicing is spreading across regions and age groups.

A tentative conclusion based on these studies is that the change is resulting in a full merger. This conclusion can however only be confirmed if there are no other cue – besides voicing and duration – used to maintain the phonological contrast. This paper investigates whether a difference in fundamental frequency (F0) at the onset of the following vowel is maintained as an additional cue, or whether this F0 difference is disappearing, pointing towards a full merger situation.

Five regions within the Dutch speaking area were chosen to represent the different stages of sound change, ranging from West-Flanders (with incipient devoicing) to Groningen (merger). Twenty speakers were recorded in each region, reading words beginning with /f/ and /v/. Voicing was measured as the proportion of the fricatives produced as voiced, and F0 was extracted at 11 equidistant time points over the vowels.

Results show clear differences in F0 at the vowel onset after labiodental fricatives. This F0 effect shows regional differences that correspond to the regional differences in fricative devoicing: the F0 effect is still strong in regions where fricative devoicing is weak. In the regions with strong fricative devoicing, both voiced and voiceless fricatives show high F0 at onset and falling F0 contours. The sound change seems thus to trigger a reduction of the vowel F0 cue, but not (yet) its full disappearance. We argue that these results are in line with the full merger hypothesis.