

The significance of frequency effects in stylisation patterns. LOT unrounding and PRICE monophthongisation in popular music singing accent

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Singing accent stylisation is a phenomenon that has been extensively studied, in particular with regard to Americanisation it frequently involves (Trudgill 1983, Simpson 1999, Beal 2009, Gibson and Bell 2012 among others). Depending on the analytical framework, the concepts of identity, reference style or default accent have been perceived as main explanatory forces. Yet, some questions regarding the mechanisms of this type of stylisation call for further research, among them – the distinct behaviour of different words exhibiting a given feature, the phenomenon that may be discussed in the light of lexical frequency effects.

This paper focuses on two processes typical of singing accent Americanisation: LOT unrounding and PRICE monophthongisation, with its aim being to examine the potential significance of frequency effects from the perspective of the usage-based paradigm (Bybee 2001), represented as an exemplar model (Johnson 1997, Pierrehumbert 2001), in which sociophonetic variation plays a pivotal role. Frequent words – apart from being processed faster and articulated more easily (e.g. Bybee 2002, Shockey 2003, Erker and Guy 2012) – are said to be the leaders of various sound changes, mainly reductive ones (e.g. Hooper (Bybee) 1976, Hay, Jannedy and Mendoza-Denton 1999, Bybee 2000).

In order to assess whether frequent words prove to be the best carriers of Americanised singing style, the singing accents of two British vocalists – Amy Winehouse and Adele Laurie Blue Adkins – were analysed with respect to the selected processes. The analysis was based on five studio albums released by the artists: *Frank* and *Back to Black* by Amy Winehouse and *19*, *21* and *25* by Adele, as well as selected interviews to compare their singing and speaking styles. The data was extracted from all the albums to compile four corpora including 278 and 194 LOT tokens, and 1334 and 785 PRICE tokens in the singing styles of Adele and Winehouse, respectively. For reference, spoken styles of both vocalists were analysed (altogether 17 LOT tokens and 241 PRICE tokens). Both auditory and acoustic methods were used for the analysis of the audio material. PRAAT (Boersma and Weenink 2016) was used to provide acoustic verification of the auditory analysis whenever isolated vocal tracks were available (35 LOT tokens and 106 PRICE tokens). All the spoken tokens were analysed acoustically. PRAAT script was used for both the LOT and PRICE vowels (the midpoint method and proportional distance method, respectively). Frequency was measured locally, i.e. the word frequency of the sample itself was used, following Hay et al. (1999) and Erker and Guy (2012). All LOT and PRICE items in the corpora were identified as frequent (occurring 5 or more times) or infrequent (occurring fewer than 5 times). The statistical significance of the obtained results regarding lexical frequency effects was verified by means of a chi-square test with Yates' correction.

Acoustic analysis of the LOT vowel in the speaking mode confirms auditory impressions regarding the lack of Americanisation. However, the PRICE diphthong was monophthongised in 16% of cases in Adele's speaking style and in 40% of cases in Winehouse's speaking style, which may be suggestive of casual speech reduction process in the latter case. With regard to the singing mode, in three out of four analysed corpora, the percentage of frequent words undergoing the change was higher compared with infrequent ones (PRICE monophthongisation: 43% vs. 4% in Adele's style, 45% vs. 14% in Winehouse's style. LOT unrounding: 66% vs. 46% in Winehouse's style) and in one case infrequent words favour the process (LOT unrounding in Adele's style: 49% vs. 38%). The results in the three cases where lexical frequency favours the process are statistically significant and in one opposite case the result proves statistically insignificant, which suggests that word frequency may affect singing style variation.

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