Individual variation in allophonic processes of /t/ in Standard Southern British English

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According to many sociolinguistic studies, there is some inter-speaker variation that cannot be explained by differences in social factors such as age, socioeconomic class, geographical origin and gender or differences in contextual style. These inter-speaker differences would be more related to how an individual uses their language and how they express their identity in relation to their speech community (Johnstone 1996; Milroy & Milroy 1977, 1978). This view is particularly relevant for the field of forensic linguistics, in that it supports the premise that speakers show a particular combination of linguistic patterns that characterise their idiolectal style (Baldwin 1979; McMenamin 2002; Coulthard 2004; Turell 2010).

The study of phonological variation with the aim to determine its idiosyncratic potential has not been the focus of much research in the field of forensic phonetics in comparison with physiological and articulatory parameters. Yet, the few studies that have actually centred on variables related to phonological variation demonstrate that such variation is the result of idiosyncratic selections, and therefore, can have much forensic relevance (Moosmüller 1997; Loakes 2006; de Jong et al. 2007a and 2007b; Loakes and McDougall 2004, 2007, 2010).

The present research builds on these studies and analyses three allophonic processes affecting /t/ in SSBE which are reported in the literature to show variation -namely glottaling, tapping and frication- with the aim to determine their idiosyncratic nature and their potential to discriminate between different speakers in forensic contexts. Nine categorical variables were formulated that consider these processes in different linguistic contexts: Variables 1-3: Glottalling, tapping and frication intervocally across word boundaries in grammatical and highly frequent words such as get up, but I; Variables 4-5: Tapping and frication intervocally in highly frequent words such as whatever, getting putting. Variable 6: Glottalling word finally before pause in grammatical and highly frequent words. Variable 7: Glottalling intervocally across word boundaries in lexical and less frequent words. Variable 8-9: Tapping and frication intervocally word internally and across word boundaries in lexical and less frequent words.

The corpus contains data on ten speakers (five male and five female) who belong to the same generation, born between 1950 and 1960, raised mainly in the Southeast of England, i.e. London and the Home Counties, and have remained in an English-speaking environment the greatest part of their lives. As a result of a real time study, two recordings for each speaker in different measurement times (henceforth MT1 and MT2) with a time lapse between 10 to 25 years between MT1 and MT2 were analysed. The MT1 recordings were recorded in the 80s and 90s, and the MT2 data in the late 2000s. All the recordings contain spontaneous speech as a result of interviews and have an average duration of 30 minutes. The particular characteristics of the data allow us to analyse variation between different speakers as well as variation within the same speaker over a considerable difference in time.

Results show that the three processes under analysis seem to be quite speaker-specific, since they generally show few significant differences when comparing samples from the same
speaker and greater significant differences when comparing samples produced by different speakers. However, the processes also show gender-specificity, since results confirm previous studies regarding the higher use of t-tapping by male speakers and higher use of frication of /t/ by female speakers (Haslerud 1995; Tollfree 2001, Hannisdal 2006, Loakes & McDougall 2010), and also context-specificity, in that they show high discriminatory potential only in certain linguistic contexts. Thus, the phonological processes of /t/ that have been analysed may have idiosyncratic value when considering the gender of the speakers and the linguistic context in which they occur.

Despite being a small contribution to the study of individual variation for forensic purposes due to the limitation of the data set, the findings of this study support recent studies that have demonstrated that sociolinguistic variation is very speaker-specific and therefore provides important information about speakers that can be very useful in a forensic context.

References


