Variation in vowel production by English-Arabic bilinguals

Ghada Khattab

University of Newcastle

This study presents a phonetic analysis of vowel production by three balanced English-Arabic bilinguals, aged between 5 and 10 and living in Yorkshire, England. The study departs from traditional investigations of bilingual phonological acquisition in several ways. First, a broader definition than usual is assumed of what is meant by ‘phonological acquisition’. Most studies adopt a broadly phonemic approach, with a focus on the acquisition of features relevant for lexical contrast in the two languages. Such an approach, however, marginalises those systematically variable aspects of production which may not be relevant for lexical contrast but which carry social-indexical information (linked to speaker sex, age, class etc.). The learning of sociophonetic features constitutes an essential part of the acquisition process for monolinguals (Docherty et al in press). In the case of bilinguals, sociophonetic variation is even more pervasive: the child’s linguistic input may comprise standard, non-standard, and non-native varieties for two languages. Few studies have considered the sociophonetic dimensions of acquisition, or their impact on the cognitive representation of two languages.

In light of the interest in sociophonetic variation, a different methodology was adopted to establish the relevant parameters of variation for the children. Bilingual studies tend to rely on generalised descriptions of the target phonologies (often based on standard varieties of the two languages). Differences between bilinguals’ production and the assumed targets are often therefore interpreted as errors, imperfect learning, or interference between phonological systems. In the current study, a detailed picture was obtained of the sociophonetic features in the children’s input. This was achieved by recording age-matched monolingual friends of the bilinguals and the parents of all the children. A total of 23 subjects was therefore recorded.

The methodology furthermore controlled for language mode (Grosjean, 1998), which few phonological studies have done. The choice of language, topic, and interlocutor may all affect the bilingual’s choice of linguistic variants. Knowledge of these choices must therefore constitute part of the sociolinguistic repertoire which children must acquire. Separate recording sessions were carried out to assess the bilinguals’ interaction with monolinguals and bilinguals, and code-switched portions were analysed separately.

This paper concentrates on six vocalic variables, namely the vowels of the BATH, STRUT, FACE, PALM, START, and GOAT lexical sets (Wells, 1982). These were chosen because of their context- and dialect-specific realisations in Yorkshire English. The results show that sociophonetic aspects are being acquired simultaneously with reflexes of the contrastive system. The bilinguals display a similar range of realisations as the monolingual controls, showing that they have acquired patterns appropriate to their community. However, the findings also reflect the bilinguals’ wider linguistic repertoire. This showed in a number of realisations that were exclusive to the bilinguals. Some of these appear to be the result of influence from the bilingual parents’ non-native accent, e.g. a close monophthong [oː] in GOAT. However, these were only noted when the children were in a bilingual mode, code-switching into English from an Arabic base. A typical realisation of boat, for example, might be [bout] in the children’s monolingual mode English, but [boːt] when inserted in code-switches. Similar effects were seen with consonantal variables, e.g. /r/ being tapped.
This finding constitutes a challenge to Chambers’ (2003) suggestion that bilinguals have an ‘accent filter’ which enables them to eliminate foreign-accents features in the input that they receive. It further suggests that variation in bilinguals’ speech production need not result from uncontrolled interference between phonological systems: instead, bilinguals as young as 5 can actively exploit variable phonological resources for specific communicative purposes. This implies that the cognitive storage of two phonological systems may indeed overlap, as is often claimed in bilingual research. But crucially, the degree and effects of overlap may be under speakers’ control as part of their phonological knowledge.

References