

Plosive consonants in L2 English: a problematic area for CG speakers?

Second language (L2) users often experience a great degree of difficulty in identifying non-native phonological segments that do not form phonological distinctions in the first language (L1). These difficulties are typically related to factors relevant to Universal Grammar (UG) in the form of linguistic constraints. The current study examined plosive consonant identification by CG (Cypriot-Greek) users of L2 English. The study aimed at:

- (a) describing the types of errors regarding plosives, *and*
- (b) providing a plausible explanation regarding the difficulties faced by the L2 users in perceiving plosive voicing distinctions.

The authors provide a twofold theoretical approach that includes L2 phonology and speech perception factors. These approaches appear to be promising in explaining why L2 users face phonological challenges, without implying that the two frameworks are mutually exclusive. Rather, both might be complementary to one another. On one hand, L2 phonology framework suggests that such difficulties may be related to phonological challenges housed in the speaker's interlanguage system. On the other hand, the speech perception framework suggests that such phonological challenges arise from phonetic and phonological processing limitations. Thus, L2 users appear less skilled in attending to the acoustic cue or to a set of cues that can reliably lead to successful discrimination of the phonological distinctions of L2 contrasts.

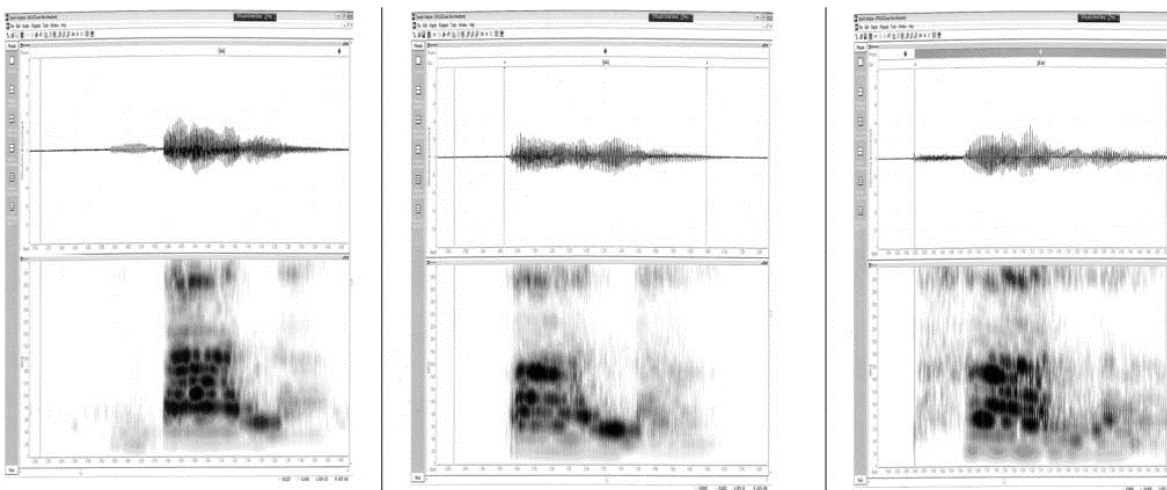


Fig. 1. Spectrograms for CG [ˈ^m bala], [ˈ pala], [ˈpʰ:ala]

Plosives constitute a problem for CG users of L2 English because of the different phonetic and

phonological plosive consonant systems of the two linguistic codes in terms of the number of plosives and their acoustic realisations (based on place and manner of articulation). Whether CG has three voicing contrasts, including the voiceless unaspirated plosives, the voiceless aspirated plosives and the pre-voiced plosives ([ku^hbi], [ku'pi], [ku'p^hi]), English has two voicing contrasts, the unaspirated voiceless and voiced plosives (*pride-bridge*). This further indicates that aspiration is a contrastive property of CG but not of English (*pare-spare*). Also, English has no prenasalised allophones contrary to CG but only nasal+plosive clusters as in *ample-amble*, pointing out that both voiced and voiceless plosives can occur after a nasal. So, the question seems to be whether CG users of L2 English can perceive voiced plosives that are separate phonemes in English but not in CG.

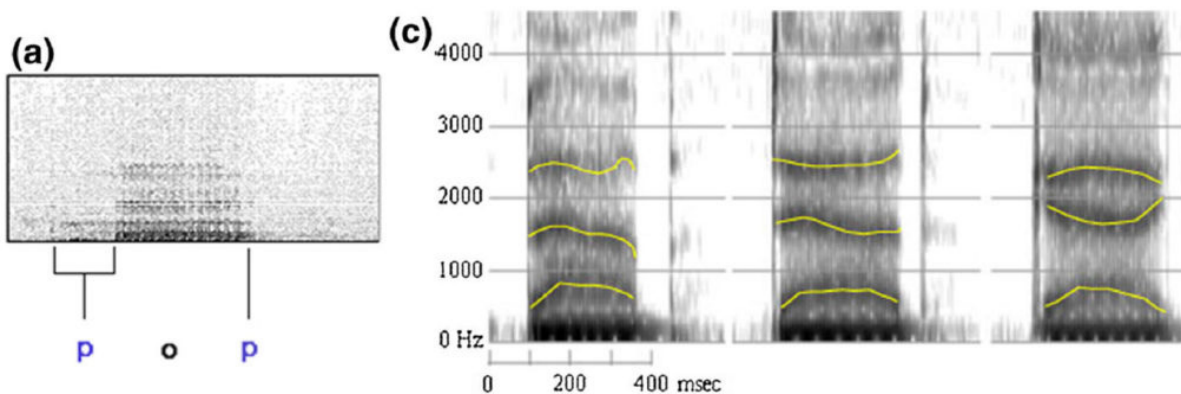


Fig. 2. Spectrograms for English *bab*, *dad*, *gag*

The task that was developed for this study focused on the acquisition of plosive voicing contrasts by college students with Cypriot Greek (CG) linguistic background. The task examined the types of errors involving plosive consonants indicating that performance was significantly better in the voiceless plosive category. Participants were able to perceive voiced plosives but they treated such instances as a /nasal+voiced plosive/ sequence. Therefore, the question raised concerns different phonological contrasts realised through similar phonetic cues. The patterns observed suggested that this gap between phonetic cues and phonological contrast might explain why CG users have difficulties perceiving voiced English plosives. In this context, voice onset time (VOT) differences between the L1 and L2 are of crucial importance. In English, voiced plosives are characterised by short lag VOT while their voiceless counterparts fall within the long lag VOT continuum. The same phonetic contrast is used in CG to differentiate between single and geminate voiceless plosives. The results are discussed in relation to the frameworks of second language phonology and speech perception suggesting that the difficulties faced by the L2 listeners support the operation of a phonetic-phonological challenge.

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