# Acquisition of a new L2 phonological feature

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In a series of experiments, Brown (1998, 2000) found that Japanese learners could not acquire English [l r] contrast because the relevant feature which discriminates between [l] and [r] is not active in the feature geometry of Japanese language but they could acquire [b v] contrast because the feature which discriminates between English [b] and [v] is active in Japanese. Brown repeated similar experiments with Korean and Chinese learners of English and the findings further supported the previous results. Thus, Brown developed what is now called Feature Model (FM) which predicts that a new L2 contrast can be acquired by adult learners only iff the relevant feature is active in L1 of learners. If the relevant feature required to discriminate between the two sounds of an L2 is not active in L1 of learners, they will not be able to acquire such a contrast. To test the predictions of FM, Larson-Hall (2004) studied the acquisition of Russian by Japanese learners and her findings confirmed the predictions of FM. Thus FM mostly gets support from the study of L2 acquisition of East Asian learners whose L1s are from one specific group of languages (i.e. East Asian Languages).

The current study is an attempt to test the predictions of the Feature Model in quite a new context. It aims to analyse the acquisition of aspiration contrast in the allophones of English stops by adult learners who speak Pashto[i]. Pashto is a language of Indo-Iranian family which does not have aspiration contrast (Elfenbien 1997).

A production test was conducted with 12 Pashtoon[ii] students living in the UK. Words having aspiration contrast at labial, coronal and dorsal place of articulation followed by front, back and low vowels were produced by the participants and recorded by the researcher using M-Audio Track-II digital recorder. Instead of adopting commonly used word-reading task method, pictures were used as stimuli to avoid the influence of orthography on production. The target words were recorded in a carrier sentence for maintaining naturalness of speech. The carrier sentence was 'I say …….again'. The data were analyzed using Praat (Boersma & Weeninck 2008).

The results show that the effect of the following vowel on the VOT of the preceding stop was not significant. However, the place of articulation variance was significant and the direction of increase in VOT was from labials (lowest VOT values) to dorsals (highest values) with coronals lying in between. The difference between the VOT values obtained in aspirated and non-aspirated stops was significant which means the learners have acquired aspiration contrast in English stops. The directionality of learning was from dorsal to labial to coronal. Thus the findings of this study are contrary to the prediction of FM which claims that learners cannot acquire a new contrast if the relevant feature is not active in the L1.The findings of this study show that although the feature [spread glottis] is not active in the L1 of the participants but (unlike the predictions of the FM) they have acquired the aspiration contrast in the allophones of English stops.

## References

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[i] Pashto also called Paxto is spoken in Afghanistan and Pakistan.
[ii] The speakers of Pashto language are called Pashtoon.