

Feature Model (Brown 1998, 2000)

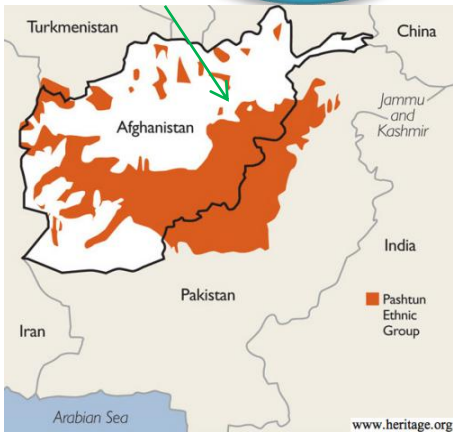
1: A new L2 contrast can be acquired by L2 learners *only* if the feature required to differentiate the two sounds is active in the L1 of the learners.

2: Pashto does not have the feature [spread glottis] active in its phonemic inventory.

FM Prediction

Pashtoon learners cannot acquire the English aspiration contrast as the feature [spread glottis] is not active in Pashto (Elfenbien 1997).

Pashto is an Indo-Iranian language spoken across the borders of Pakistan and Afghanistan



FINDINGS

- 1: Place of articulation: Aspirated dorsal stop is acquired before coronal and labial stops.
- 2: Vowel effect: The following vowel does not affect the VOT of the preceding labial and coronal stops but affects the velar stop. The VOT for a velar stop after a front vowel is bigger than that after back or low vowel.
- 3: Contrary to the FM claim, an L2 feature which is not active in the L1, may be acquired by adult L2 learners.

Objectives

- 1: To test the predictions of the FM
- 2: To study the effect of place of articulation and the following vowel on VOT

Research Methodology

Stimuli: picture naming in a carrier sentence
Participants: 12 learners living in the UK for 29.17 (sd=24.19) months.

VOT Values

Sound	[u]	[i]	[a]	Average
[p ^h]	27.58	18.92	20.83	22.44
[t ^h]	32.67	43.67	30.58	35.64
[k ^h]	48.92	73.08	55.08	59.03
[p]	22.83	15.17	17.42	18.47
[t]	36.33	31.25	31.92	33.17
[k]	43.92	58.67	38.25	46.94

Quantitative Data Analysis

- 1: Three-way (vowel*place*aspiration) & two-way interaction (aspiration*vowel) & (aspiration*place) is non-significant (p>.1).
- 2: Two-way (place*vowel) interaction (Wald Chi-square=62.57, df=4, p<.001), place effect (Wald Chi-square= 43.18, df=2, p<.001) and *aspiration contrast* (Wald Chi-square =6.832, df=1, p<.005) are significant.
- 3: Overall vowel effect is non-significant (p>.1) but significant for aspirated ($\chi^2=6.78$, p<.05) and non-aspirated ($\chi^2=8.04$, p<.05) dorsal only.

A Challenge for the Feature Model

The feature [spread glottis] is not active in the L1

FM claim:

These learners cannot acquire aspiration contrast in an L2

But

They have acquired English aspiration contrast successfully

Possible Reason

The learners speak Urdu, which is national language of Pakistan and is spoken as a lingua franca. Urdu has aspiration contrast in its consonant phonemic inventory. The learners transferred the aspiration contrast from Urdu to English.

Conclusion

An already acquired feature in an L2 may be transferred to another foreign or second language although it does not exist in the L1.

References

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Elfenbein, J. (1997). Pashto Phonology. *Phonologies of Asia and Africa* 2 (2) 733-759.