
This is a report of an experiment in phonetic learning. A group of native speakers of American English (N) was taught to pronounce words from a ‘second language’ (target language, T). These words had actually been taken from Arabic (A), French (F), and Vietnamese (V). Subjects were unfamiliar with these languages, but scored high on important criteria as phonetic ability.

Each stimulus word contained a critical sound to which the subject’s attention was drawn in the learning phase. These words had been pronounced by native speakers of A, F and V. In three learning sessions the subjects tried to associate words to visually presented symbols. These symbols were the usual phonemic transcriptions of the critical sounds, e.g. ž for French joucher. During each learning session a subject was tested four times for his proficiency. For this he was presented with a symbol and asked to pronounce the corresponding T-word. Pairs of native speakers of each language (A, F, and V) judged the reproductions on their acceptability. In this way the author was able to construct learning curves for each of the critical sounds. By averaging over test trials one obtains a mean difficulty for each sound,1) and thus a hierarchy of difficulties for the 16 critical sounds that had been tested.

Several predictions that had been made from phonetic, phonemic, and distributional similarities between the new T-sounds and the familiar N-sounds could be checked in terms of this hierarchy and various conclusions could be drawn. Among them: (1) distributional differences of a sound in N and T contribute to the difficulty of a sound, but only if the syllable (rather than the word) is taken as the prime unit of analysis; (2) difficulty is much better predictable from phonetic parameters than from abstract classificatory features; (3) predictions or explanations in terms of learning theoretical facilitation and interference paradigms are in general not possible.

The reviewer has one problem with this in most respects very neat experiment. It relates to the use of phonemic symbols as visual

1) The reviewer was unable to reconstruct the difficulty values in table I from straight averaging over trials in appendix IV. The author is unclear about his averaging procedure.
stimuli to the subjects. Though Brière gives reasons for not using other methods, he does not discuss the contra's of this type of stimuli. A subject, unfamiliar with the phonemic alphabet, will certainly be suggested to pronounce an /h/-like sound, when presented with the visual symbol ʰ, though Arab /h/ and Anglish /h/ differ quite a bit. Brière does not mention this visual similarity as a possible factor (p. 69) in the confusion of these sounds. Similar things may be remarked about other symbols. At any rate difficulty of learning is also clearly related to (I do not say 'caused by') the 'queerness' of the phonemic symbols, as is apparent from table III (p. 60). The 8 (out of 16) sounds, most difficult to learn are all represented by 'queer' symbols in terms of the English alphabet (ʰ, i, t', γ, ü, η, ë). The ease of symbol-sound association might have been influenced by such factors. But even if this is not the case, it cannot be shown from the data.

Finally, the reader might also have liked some discussion of other aspects of the learning curves than mere averages.

Instituut voor Algemene Psychologie,  
Universiteit Groningen,  
Groningen, The Netherlands

W. J. M. Levelt