Tibor Nagy:

'Hunglish' Suprasegmentals

The pronunciation of a language concerns two main areas; segmental and suprasegmental. To learners of English it is the segmental aspect that seems more difficult, and therefore more important, i.e. the articulation of sound segments; to native speakers of English, however, the suprasegmental aspect of pronunciation appears to be more significant from a communicative point of view. This kind of dichotomy can only be explained by a certain degree of lack of sensing the features and the importance of the latter on behalf of the learner. In other words, if the learner does not sense differences between two (or more) acoustic phenomena, he or she naturally assumes that there are no differences, or, what is more often the case, is not aware of the possibility of differences at all.

There is bound to be a certain degree of bias in the treatment of this topic since most of the phonetic investigation at Kossuth university is centered around the acoustic analysis of speech with a computerized speech lab. This machine (KAY CSL 4300) makes the revelation of features possible which, otherwise, remain hidden and unconscious both to learner and teacher.

Then, of course, we may rightly ask why it is necessary to detect features that seem to have no mental (and consequently practical) relevance, i.e. oral communication is not normally hindered by these phenomena.

The answer is theoretical on the one hand, and very practical on the other. It is quite possible that the difficulties non-native speakers have when trying to use English prosody are due to a lack of proper feedback as concerns their pronunciation. The typical "mistake" advanced students (and teachers) of English make is that they render less important words within the sentence prominent. This is an observation often made by native speakers of this language. We tend to use contracted forms and weak forms far less frequently in our speech than we should. The surprising thing is that oral instruction to students does not lead to a more English pronunciation, neither do aural feedback and continuous repetition. The other problem is that we do not normally sense and are not aware of the differences that there are when we listen to a native speaker and our own speech.

Traditionally, the teaching of pronunciation has relied on and will always rely on aural models, the 'listen and repeat' method. There is, however, an insurmountable obstacle as concerns this teaching method: our hearing apparatus may function quite satisfactorily from a communicative point of view and it is also capable of sensing artistic acoustic phenomena, but it was not created in such a way as to be able to detect all the linguistically relevant minute alterations in the acoustic continuum transmitting linguistic signals. In other words, there is a great deal of discrepancy between what actually reaches the ear and what we think we hear. This kind of difference between the acoustic signal and the mental image it creates cannot only be explained with the imperfection of the ear; it is more attributable to the way the brain processes the speech signal. In terms of speech-related acoustic phenomena, we tend to associate whatever we hear in any language with the 'landmarks' established by our mother tongue both mentally and articulatorily. This applies to segmentals and suprasegmentals as well.

A simple illustration can be given by asking a student to utter a continuous vowel-

like sound starting from /i/ and arriving at /a/. This is a task that requires the intermediate gradiance between the front vowel series /í, é, e, á/. Knowing the basic relationship between tongue position and formant structure, we would expect to get continuous slant lines on the spectrogram.

Interestingly, no Hungarian speaker has been able to perform this seemingly simple task successfully the first time. What appears on the screen is a picture of elongated Hungarian vowels with sudden changes to other Hungarian vowels. Most often, students grab the two extreme values with a very short transition phase in the middle. Even if the speaker is well instructed on how to pronounce this continuum, he is so bound by the Hungarian vowels that he cannot aim at intermediate acoustic effects. What is important here is the fact that the informant does not sense and cannot hear what he was actually saying. (See **Figures 1a and 1b**)

A very similar result is obtained with suprasegmentals. The results of the present investigation are based on case studies involving male and female native speakers of English and Hungarian students and teachers of English. The results are also consistent with the findings of other previous acoustic analyses. It must also be noted that the pronunciation of the Hungarian informants is better than average.

The problem of suprasegmentals to non-native speakers of English is the question of how to render certain elements of linguistic units prominent in the foreign language and in what ways.

The deviation from English models can be summarized in the following categories:

a) The speaker uses Hungarian patterns of stress as he is not aware that it is different from that of English. A typical example is the placing of primary accent on the first element of phrases like 'good work', 'nice chap', etc.
b) The speaker does not know which syllable(s) to render more prominent in the foreign language although he or she feels that the placement of stress is different from that of the mother tongue.
c) The speaker is familiar with English patterns, nevertheless he is unable to produce the desired acoustic quality. Such speakers usually confuse the application of the various means making linguistic elements prominent. (See **Figures 2a and 2b.**) The graph above shows a native speaker's pronunciation while the one below refers to a Hungarian speaker's utterance.)

In his description of English pronunciation, Roach (1991;86) gives a straightforward definition of the nature of prominence: "Prominence...is produced by four main factors:(i) loudness, (ii) length, (iii)pitch and (iv) quality. Generally these four factors work in combination, though syllables may sometimes be made prominent by means of only one or two of them."

It is actually the choice of and the ratio between these factors that causes most of the confusion to Hungarians. **Figure 2b** gives a typical picture of the way Hungarians tend to say phrases like 'good work'. Normally, the first element of such phrases receives secondary stress (Head) and the second element is rendered primary stress (Nucleus). (In these graphs, dots refer to pitch [fundamental frequency] and lines refer to intensity [loudness].) What is strikingly different is the flat contours of the Hungarian informant's utterance; where there should be pitch change is a flat, monotonous level tone. Listening to the recording, however, Hungarians do not notice how different it is from the English pattern.

Before we discuss the deviation from the patterns we should use when speaking English, let us study 'classic' examples of the way prominence is distributed over a sentence such as 'What's the time?' (**Figure 3a**), or 'Who's he?' (**Figure 3b**). In neutral Wh-questions, the question-word functions as the Head (the first stressed syllable), and the last stressed lexical word is the Nucleus. Although the Head may be more prominent in terms of intensity (loudness), the Nucleus is rendered more prominent owing to a considerable pitch-change.

One of the difficulties of giving a syllable 'the right sort of and the right amount of prominence' lies in the fact that spoken language is not a continuum of clear-cut models, but rather like a varying realization of several possibilities to highlight what is linguistically important.

There is a basic division between new and old information on the one hand, and there are certain ways of giving prominence acoustically on the other. The way we realize this phenomenon may be different from the way we identify it perceptually and mentally. The idea of Head and Nucleus seems a satisfying and workable notion, nevertheless its usefulness to learners has proved to be rather limited; it cannot guarantee a remarkable improvement in the application of suprasegmental features.

If we compare the surprising differences between the graphs in **Figures 4a** and **4b**, we will understand why Hungarians have difficulties with longer stretches of utterances. A seemingly simple word, 'Oh' said with a rise-fall was something the Hungarian informants were unable to produce. Instead of a rise-fall they used a fall-rise (!) even after several attempts. If the differentiation between these two very different tones requires practice and a conscious effort, how can we expect the learner to sort out the varying degrees of pitch (change) and intensity that culminate in a combined sensation of prominence?

The prospects appear to be rather frustrating; without a refined sensation of these features, advice as to how to modify pronunciation will only result in an unnatural, affected way of speaking in a number of cases.

Figure 5b shows a similarly unsuccessful attempt at imitating a rise-fall. The English pattern (**Figure 5a**) is so clear that we are tempted to believe anyone could say these two words in this fashion.

Longer sentences can reveal other deviations from the English model. 'Where did you put it' said with a rising tone and nuclear placement on the Wh-element when "asking someone to repeat" is a good example of how wrongly Hungarians apply the prominence of intensity. In the English speaker's pronunciation it is the Wh-word that is rendered most prominent (**Figure 6a**); the Hungarian speaker, however, in spite of a conscious effort, renders the less important words 'did' and 'you' the most prominent (**Figure 6b**, second and third peaks in the graph). It must be noted that this kind of pronunciation does not strike the ears of even advanced students of English as strange. In fact, owing to their knowledge, they mentally attribute non-existant prominence to the right syllables. Mistakes like that pass unnoticed in the majority of cases.

A similar kind of mistake is illustrated in **Figure 7b**. In the sentence 'Tell me the truth' it is again the less important words that happen to be most prominent. It seems very surprising first, but there may be a serious misconception working in the background. The mere fact that the speaker uses the weak forms of pronouns and articles makes him believe that he is using a lower degree of intensity. It is also possible that difficult sounds like the interdental fricatives require special attention from the speaker, which causes him to apply an unnecessarily great degree of prominence of intensity through the conscious articulatory effort he makes.

Figure 8a ('Pass me the salt') shows four greater peaks and divisions of the utterance, which is reflective of the rhythmic beat of spoken English. The distribution of intensity in the Hungarian informant's pronunciation is less even, and again the word 'me' is the most stressed element of the utterance.

After all these critical observations, it would be easy to draw some basic conclusions if these conclusions had not been arrived at and thoroughly treated in several text-books. Visual representation combined with aural feedback, however, can open up new areas in the teaching of pronunciation. The usefulness of pictures and graphs like these becomes undeniable when aural monitoring cannot yield satisfying results; the speaker becomes more aware of the way he modifies his articulation and applies prosodic features, and a stronger association between the acoustic effect and the means by which they are achieved will be acquired.

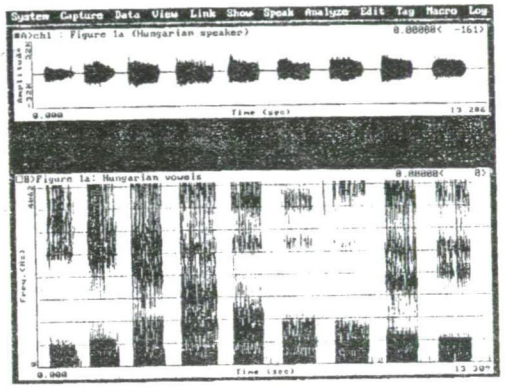

Figure 1a

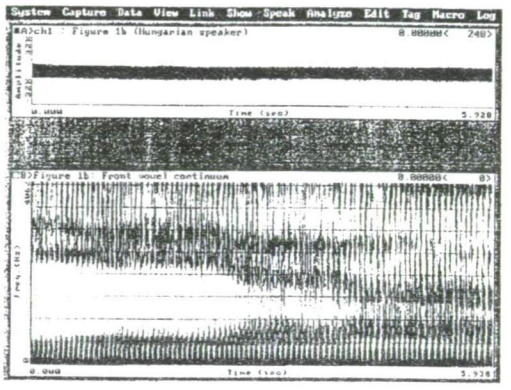

Figure 1b

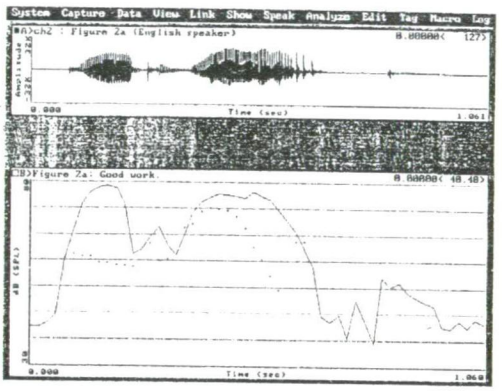

Figure 2a

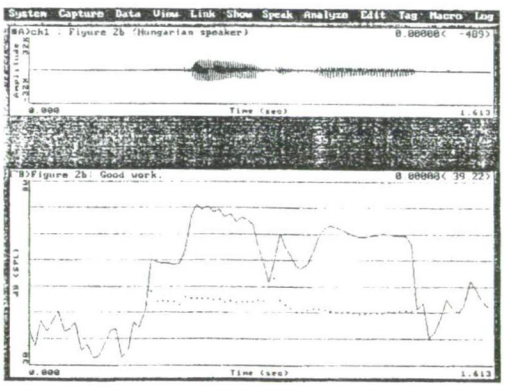

Figure 2b

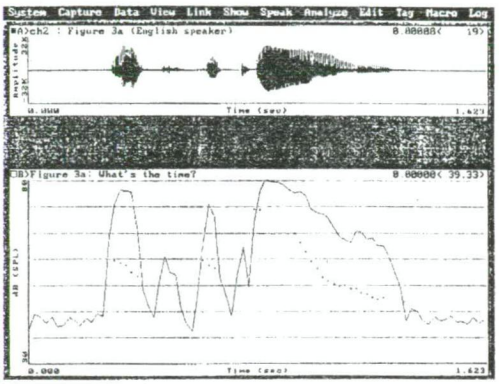

Figure 3a

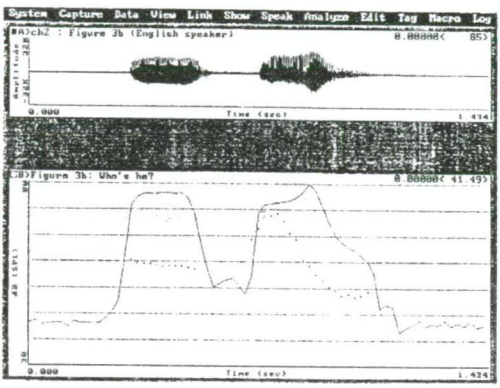

Figure 3b

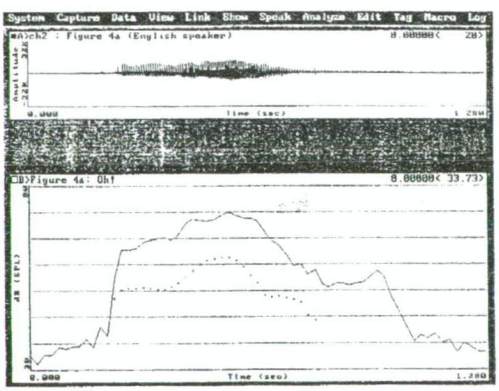

Figure 4a

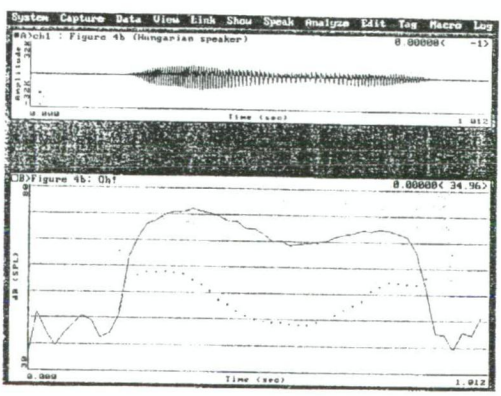

Figure 4b

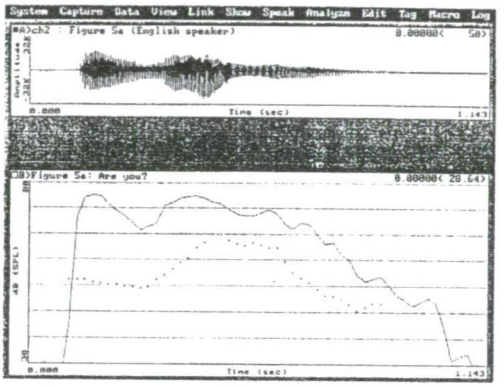

Figure 5a

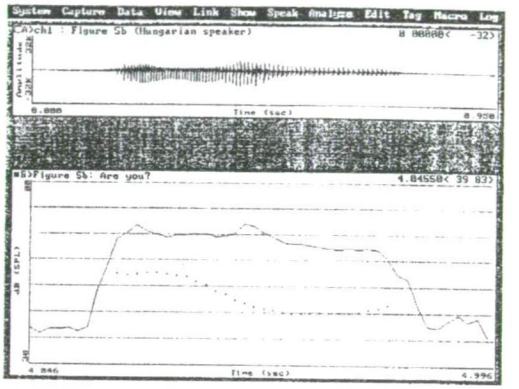

Figure 5b

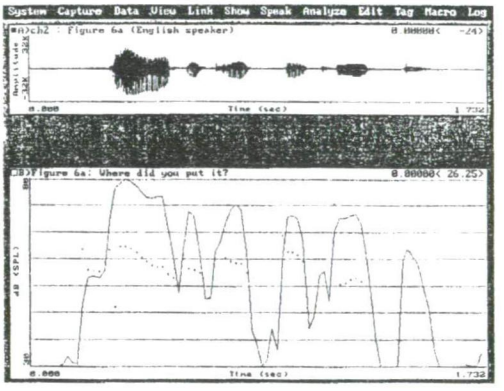

Figure 6a

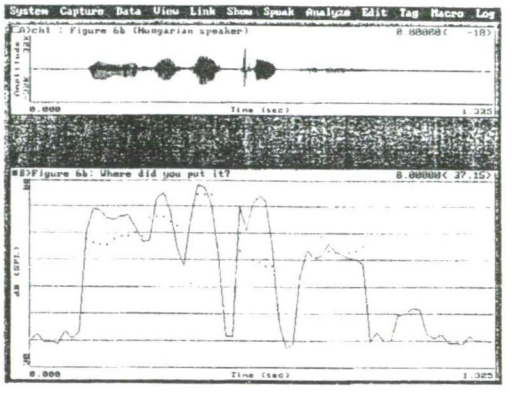

Figure 6b

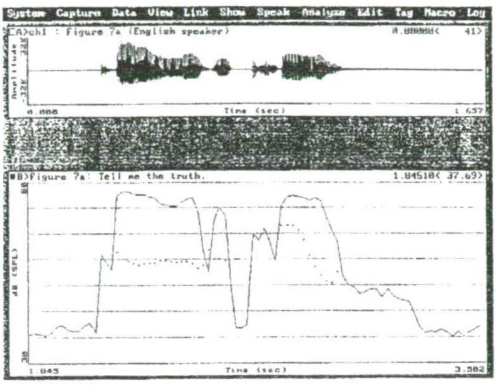

Figure 7a

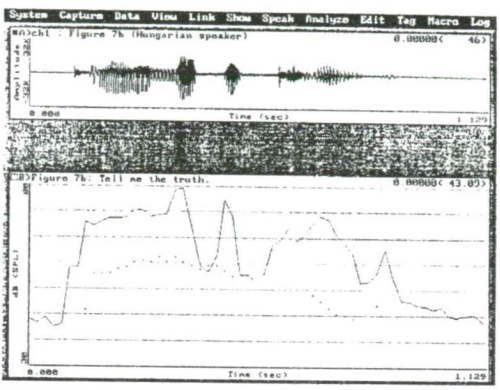

Figure 7b

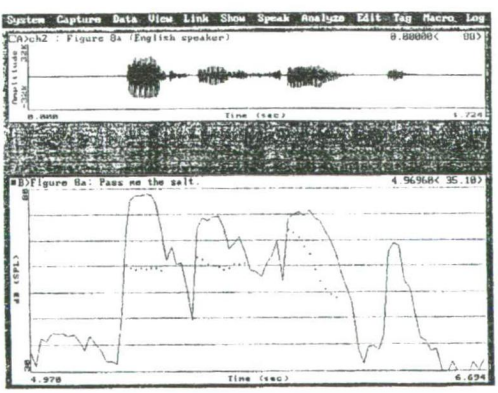

Figure 8a

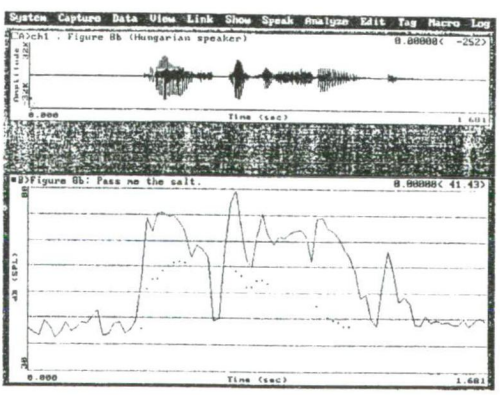

Figure 8b

Sources

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