Introducing Voice Analysis Software into the Classroom: how Praat Can Help French Students Improve their Relationship to English Prosody

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Abstract

In previous experiments [1], we have shown how integrating a computer-assisted phonetic transcription marker, associated with a filing system, within the classroom, can help French students of English as a Second Language improve not only their phonetic transcription skills, but also help them build a phonological competence by linking theory to practice. In a later development of the tool, we have demonstrated how adding an auditory to a visual modality had significantly increased the stability of acquisition even in cases where the students may have paid a higher cognitive cost in an initial learning phase [2]. Our aim was to address the issue of how French students deal with individual phonemes at word-level or with word stress in English as well as improving their oral skills in English rhythm and intonation. The latter has been shown to be a major hindrance in communication with English speakers for L2 learners [3]. We have therefore integrated the use of a voice analysis program [4], into the teaching/learning practice of prosody. The aim of the present study is to target the type of errors made by students in their understanding and interpretation of English prosody, so as to aid them in overcoming these obstacles through explicit learning [5]. The software enables the student to synchronize listening to a sound file and visualizing the oscillogram of that selected sound. It also enables the sound to be annotated by creating parallel text-grids below the spectrogram and pitch windows. The sentences chosen for the experiment were excerpts from BBC News programs offering no particular lexical difficulties. The students were asked to represent four levels of segmentation by creating four different tiers; the task included the segmentation of the continuous flow of speech into Intonational Phrases (IPs), and the identification of the structure of these IPs, including the indication of the place and type of tone used by the speaker as nucleus or tonic syllable. They were also asked to give a representation of the rhythmic units of the speech, which addressed the issue of how to bridge the gap between a syllable-timed language (French) and a rhythmic-timed language (English). The basic idea behind the form of the experiment was not only data- collection but mainly to enable them to use errors to develop their cognitive approach to the learning of English prosody.

References

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