

Can music help teachers and learners in prosodic proficiency?

The influence of music training, music aptitude and musical didactic tools on the perception of Dutch word stress by French speakers

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Prosody is essential in foreign language oral proficiency since it seems to have an important impact on perceived strength of one's L2 accent [1]. However, methods to teach it are rather scarce [2] and prosodic difficulties remain in learners' proficiency even after many years of classes. This is for example the case for the French speaking students of Dutch, whether at sentence [3] or at word level [4].

Considering the parallelism between music and language in both acoustic properties and neurological processing [5, 6], we could wonder whether music can help learners in prosodic proficiency. It has already been stated that music training or musical aptitude can improve some language capacities, such as the perception of pitch changes [7, 8]. Moreover, the use of music as a didactic tool seems to have a positive influence on some aspects of language learning, like word segmentation [9] or syllable discrimination [10]. However, the influence of both musical aptitude and musical training on prosodic proficiency has not been examined on a systematic way, let alone the impact of the use of music as a didactic tool. The project we carried out aims to remedy this lack of information, since it analyses the impact of music training, of musical aptitude, and of the use of music as a didactic tool on the perception of lexical stress of Dutch (which has a variable word stress with a lexical property) by speakers of French (which has a 'primary accent' which falls on the final syllable of the word (group)).

For this purpose, we tested French university students learning Dutch. They heard 96 stimuli consisting of three words, the first one pronounced by a man and the two following words pronounced by a woman, with variation in the position of the lexical stress (e.g. *doorkruisen* (to cross something out) – *doorkruisen* (to go over something) – *doorkruisen*). They then had to say, as quickly as possible, which word pronounced by the woman has the same pronunciation as the word said by the man. Each stimulus was either spoken, either spoken on a beat, either sung. The music training and musical aptitude levels of the students were evaluated through a general questionnaire and through the GOLD-MSI inventory stating the individual differences in musical sophistication [11].

The very first results suggest that participants show better results and quicker answers for sung stimuli than for stimuli which are spoken or spoken on a beat. Further data and analyses, which will be available by March 2016, will indicate 1/ whether music training or aptitude can improve lexical stress discrimination; 2/ whether the use of rhythm or song can help learners in this task; 3/ which kind of presentation of the stimuli (spoken/spoken on a beat/ sung) is more adapted in function of the musical background of the student.

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