

mgr Zofia Malisz

Speech rhythm perception and production – recent work on the perceptual centre

Speech rhythm has proven to be a rather elusive and difficult concept in modern phonetics and phonology. Attempts to measure it or even define it have been inconclusive and lacking universality. Technologically minded speech analysts are still on a quest to find measurable phonetic correlates of rhythm that would improve the performance of speech recognition algorithms and the naturalness of automatically generated speech. Theoretical linguists, have been fascinated by regular timing patterns present in human behaviour in general and speech in particular. However, as many “rhythm metrics” and “rhythm theories” as there are, we are still lost in a myriad of empirically undefined categories such as “syllable” or “beat” and at pains to choose the optimal mathematical strategy able to cope with slippery “timing”.

I will present a new approach which I have chosen for my PhD work, that is able to test and prove that rhythmical structure exists in speech and that there is a measurable correlate which participates in the structure. I will provide a short review of work on the correlate: the perceptual centre. I will talk about how the p-centre, despite the name, defines the way we perceive as well as produce regular timing patterns. I will explain how the p-centre locates the concepts of “syllable” and “beat” within a theory which has had considerable success in explaining human rhythmic behaviour in general. I will present a corpus of Italian p-centre data that I have collected and say a few words about the work on Polish and English that will ensue in my PhD.