

## Speech Rhythm Variation in Languages and Dialects: F0, Natural and Inverted Speech

**Authors :** Imen Ben Abda

**Abstract :** Languages have been classified into different rhythm classes. 'Stress-timed' languages are exemplified by English, 'syllable-timed' languages by French and 'mora-timed' languages by Japanese. However, to our best knowledge, acoustic studies have not been unanimous in strictly establishing which rhythm category a given language belongs to and failed to show empirical evidence for isochrony. Perception seems to be a good approach to categorize languages into different rhythm classes. This study, within the scope of experimental phonetics, includes an account of different perceptual experiments using cues from natural and inverted speech, as well as pitch extracted from speech data. It is an attempt to categorize speech rhythm over a large set of Arabic (Tunisian, Algerian, Lebanese and Moroccan) and English dialects (Welsh, Irish, Scottish and Texan) as well as other languages such as Chinese, Japanese, French, and German. Listeners managed to classify the different languages and dialects into different rhythm classes using suprasegmental cues mainly rhythm and pitch (F0). They also perceived rhythmic differences even among languages and dialects belonging to the same rhythm class. This may show that there are different subclasses within very broad rhythmic typologies.

**Keywords :** F0, inverted speech, mora-timing, rhythm variation, stress-timing, syllable-timing

**Conference Title :** ICLLL 2018 : International Conference on Linguistics and Language Learning

**Conference Location :** San Francisco, United States

**Conference Dates :** June 06-07, 2018