

In this presentation both acoustic and lexical/syntactic correlates of perceived prominence are discussed. *Prominence* is a cluster of pitch accent and lexical stress and is defined at the word level and listener judgments are used as the norm. One of the findings is that naive listeners are able to mark word prominence rather consistently on isolated Dutch sentences.

*Acoustic* input features are used for classification of prominent words, with the help of feed-forward neural networks. With the best choice of features, for an independent test set of 1,000 sentences, about 79% of the words are correctly classified as being prominent or not.

Using *lexical/syntactic* input features (such as word class, number of syllables and position of the word in the sentence), which are derived from text only, an algorithm to predict prominence is developed. The predicted prominence agrees with the perceived prominence in 81% of the cases for an independent test set.

The results of the present study show that acoustic and linguistic correlates of prominence can be determined automatically and can be used to accurately predict prominence. Statistical agreement measures show that prominence prediction on the acoustical as well as on the lexical/syntactic input level is undistinguishable from prominence assignment of naive listeners. Knowing the prominent and non-prominent words in a sentence may be useful for speech technological applications for instance for the disambiguation of utterances.