

## Lexical tones crowd out intonation in Limburgish and Chinese

Carlos Gussenhoven (Radboud University, Nijmegen)

In the confrontation between lexical and post-lexical functions of tones, lexical tones often appear to trump discourse tones when vying for the use of  $f_0$  variation. I will focus on two groups of languages, Limburgish and Mandarin. First, I will discuss the ways in which the introduction of a lexical tone contrast upset the highly complex intonation system of West Germanic. In principle, this innovation should have led to the doubling of the entire intonation system, one for each tone class. In reality, this confrontation yielded a kaleidoscopic variety of solutions, all of which resulted in the reduction of the number of intonation contrasts and the preservation of the tone contrast. Among these are (a) orthogonal grammars with drastically reduced numbers of intonation contours; (b) grammars that generate contours that are not used; (c) grammars with phonological constraints that produce unequal numbers of intonation contrasts depending on a word's tone class and sentential position. For Mandarin, I will defend the hypothesis that the complex tone system arising between Old Chinese and Middle Chinese crowded out a phonological distinction between declarative and interrogative intonation, relegating it to paralinguistics. To back up the claim that today's contrast is paralinguistic, I will present the results of a Categorical Perception experiment that contrasts the phonetic differences between lexical tones with those between intonations of Henan Mandarin.