Successive Addition Boundary Tone of Chinese Emotional Intonation: Production and Perception

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摘要

‘Successive addition boundary tone’ (SUABT), proposed by Chao to convey pragmatic function, was found in Emotional intonation of Mandarin Chinese, such as the speakers expressed ‘Disgust’ or ‘Angry’ by using a kind of ‘Falling’ SUABT, and ‘Happy’ or ‘Surprise’ by a kind of ‘Rising’ SUABT. In this case, the boundary tone is composed by two components, i.e., the lexical tone which is employed to express linguistic meaning, and the expressive tone to express emotional attitude or pragmatic meaning. In the present study, the intonation patterns and the SUABT was analyzed phonetically and phonologically. And then a perceptual experiment was conducted to tear apart the interaction between the form of Chinese SUABT and its expressive function, and whether it can uniquely encode the emotional or pragmatic information. Through GLM (General Linear Model) analysis on the perceptual results, we found that the acoustic features, length of sentence, and final tone category are factors which have significant effect on emotional expressiveness, but their contributions vary across emotions. The mapping between the form of SUABT and its pragmatic function is a 1-to-many relation. The results further revealed that the SUABT is not the unique element encoded to express emotions, as suggested by Xu’s PENTA model, other components could be encoded together to convey expressive information.

Index: Chinese intonation, emotion, expressiveness, boundary tone, successive addition boundary tone