

# Taiwan Corpora of Chinese Emotions and Relevant Psychophysiological Data -- Prosody for Basic Emotions

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The purpose of the present study aimed to collect emotional prosody of sentences and conduct subjective evaluation to establish a Taiwanese database of emotional prosody. In the first phase, there were 3,541 emotional vocal stimuli of the seven basic emotions collected. In the second phase, 162 college students each rated randomly selected stimuli of their emotional category and intensity. Based on the ratings, we screened 424 stimuli and computed entropy values for each stimulus. The obtained total averaged entropy values was 1.14 ranged between 0.00 and 2.71. The averaged entropy of anger was the lowest, the entropy of disgust and contempt stimuli were the highest. In the third phase, 320 short videos of emotional prosody with its facial expressions were developed and evaluated by 60 participants. We then screened and selected 254 video stimuli, the obtained total averaged entropy values was 1.26, ranged between 0.05 and 2.71. The averaged entropy of happiness stimuli was the lowest, and the averaged entropy of disgust stimuli was the highest. We then conducted analysis on the scores of consistency between the original performed emotion and the evaluated emotion of the types of emotion, the gender of the stimuli, and the sex of the participants. Results found main effects of the emotion and gender of the stimuli as well as an interaction between them. Happy, angry, surprised and neutral stimuli were found higher of their consistency and disgust and fearful stimuli were lower in consistency. The consistency was found lower on female stimuli than those of male stimuli. Follow-up the interaction found higher consistency in female angry, and disgust stimuli than to those of male stimuli, whereas higher consistency to male contempt and surprised stimuli were found than those of female stimuli. Emotional prosody voice and video stimuli were both collected in database for further research.

**Keywords:** *stimuli, emotional prosody, Taiwanese database*