Abstract of thesis entitled

A Developmental Study of Phonological Activation in Chinese Character Recognition

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Phonological activation including the effect of tonal information in Chinese character recognition was investigated in the present study. Stroop task was employed in the experiments, and three kinds of stimuli, i.e. color characters and homophones with same and different tones, were mainly used in the congruent and the incongruent conditions. Subjects were 40 pupils of Grade 3 and Grade 5 from mainland China. They were asked to name the color of the presented character or color patch. Significant facilitation and interference effects from homophones (regardless of tone) were found in the experiments, except for the usual Stroop effect from color characters. And it was noticed that the effects from same-tone homophones were much stronger than from different-tone homophones in most cases. More importantly,

when compared with the 5th-grade subjects, different-tone homophones induced more interference effects to the 3rd-grade children. These findings suggested that phonological codes and tonal information were automatically activated in the semantic processing of Chinese characters. And tonal development was a gradual progress along with the growth of reading proficiency.

The limitation of this study is that it was different from the normal reading when a few simple characters were repeatedly named. Moreover, more convincing evidences by various paradigms are encouraged to test the development of tonal acquisition.

(210 words)