Analyze Chinese Lexicon Project in the Chinese Character norms of traditional scripts

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Abstract: Chinese Lexicon Project (Sze et al., 2014) summarized lexical decision response data of 2,500 Chinese characters. The original analysis has showed that the newest character frequency norm accounts the most variance of reaction times. The variance of these response data are analyzed in terms of the character frequency, strokes, and structures in use of the norms from Taiwan. First of all, simplified characters ranked as high frequency have greater performance on reaction times, but these characters ranked as lower frequency in traditional scripts have overestimated response points. Secondly many simplified characters are transformed from complex to simple, and strokes are substantial discrepancy between Chinese scripts. Finally, structure of character takes a large proportion of variance in the response data. The covariance of structure and character frequency also shows a significant trend. Our current work reveals some critical thinkings on using mega-data as the approach to study Chinese character processing.