

## CBS Research Seminar

# Spatial density and acoustic density differentially influence sensitivity in reading Chinese characters and perceiving lexical tones

Presented by

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**Date: 18 January 2017 (Wednesday)**

**Time: 4:30 – 6:00 p.m.**

**Venue: GH803**

### ABSTRACT

Averagely speaking, traditional Chinese characters have more strokes than simplified Chinese characters, exhibiting a denser spatial organization. On the other hand, Cantonese has a relatively larger number of lexical tones than Mandarin, showing a denser acoustic distribution. Event-related potential measurements, but not behavioral measurements, help to discover that differences in spatial density and acoustic density differentially influence sensitivity in reading Chinese characters and perceiving lexical tones. In particular, in comparison to Putonghua participants, Hong Kong Cantonese participants, traditional Chinese character readers trained with characters with a denser spatial organization, are less sensitive in distinguishing characters from non-character counterparts. However, Hong Kong Cantonese participants trained with a denser tone system are more sensitive in distinguishing tones from different tone categories. The experimental results will be detailed, and possible reasons underlying the above discrepancies will also be discussed.