Mapping the Human Language Network: Development, Disorder and Culture-specific Research

Organizers:

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Although there are hundreds of studies on human language processing, the description of the neural basis of language and speech still remains difficult. Recent studies have shown that human language processing can manifest on neural networks rather than segregated regions. Technical advances in neuroimaging have helped us to investigate the functional architecture of language network and its anatomical basis in both the mature and developing brain. But before a real understanding human language and the brain will be achieved, there are still many issues that need to be solved. The goal of this symposium is to provide new evidence and answers to a number of open issues.

Learning Objectives:

1. Understand the structure and function of the adult human neural language network and its impairment;
2. Learn about the relation between the maturation of the structural neural network, functional brain activation and language performance during development;
3. Learn about the cross-culture differences of human language network, especially the neural systems for Chinese and English;
4. Know how speech and reading are lost and recovered following neurological damage or developmental delay.

The Language Network during Development: Functional and Structural Aspects
Angela D. Friederici, Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany

Where is Wernicke's area? Redefining its anatomical boundaries
Tianzi Jiang, Institute Of Automation, Chinese Academy Of Sciences, Beijing, China

The adaptive brain: Effects of structural brain changes on language function
Lorraine Tyler, University of Cambridge, Department of Psychology, Cambridge, United Kingdom

Neural networks of Chinese reading
Li-Hai Tan, State Key Laboratory of Brain and Cognitive Sciences, University of Hong Kong, Hong Kong , China