Introduction

Neurocognitive processing of the Chinese language

The Chinese language possesses linguistic properties that differ from those of the widely studied Indo-European languages. For instance, much attention has been paid to the logographic writing system of Chinese, which provides novel opportunities for investigating semantic and phonological factors in word recognition. The productive compounding system in Chinese has sparked much research (e.g. Zhou & Marslen-Wilson, 1994, 1995). Likewise, the scarcity of functional morphology and reliance on word order and animacy in sentence processing and thematic role assignment makes Chinese a useful test case for psycholinguistic models of sentence parsing (e.g., Philips, Bornkessel-Schlesewsky, Bisang, & Schelesewsky, 2008; Ye, Luo, Friederici, & Zhou, 2006).

Although neurolinguistic research aims to uncover a cross-linguistic account of how language is processed in the brain, many language processing models are based on research carried out in a single Indo-European language or in a small sample of such languages. The Chinese language, then, offers a valuable testing ground for such models. Given the uniqueness of the Chinese language, research on the neurocognitive processing of Chinese may not only contribute to our understanding of language-specific processes, but also shed light on to what extent models based on Indo-European languages are universal. The recognition of this merit has led to extensive publication of cognitive studies on Chinese. The current selection of papers extends this literature significantly and focuses more specifically on the neurobiology of the Chinese language processing.

This special issue is a biased sampling of the state of art. All six articles concentrate on the neural basis of character, lexical, or conceptual processing in Chinese. We did not receive contributions for studies on the semantic, syntactic or pragmatic processes in Chinese language processing, although such studies are being published elsewhere. Nevertheless, the six studies included here use a variety of brain measurement techniques, including functional magnetic resonance imaging (fMRI), event-related potentials (ERP), computational modeling, and brain lesions, reflecting numerous approaches to the cognitive neuroscience of Chinese.

References

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