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Dynamic bicultural brains: fMRI study of their flexible neural representation of self and significant others in response to culture primes

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Key words: culture priming, independent self-construal, interdependent self-construal, functional magnetic resonance imaging (fMRI), medial prefrontal cortex, self-inclusiveness.

Introduction

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Self-inclusiveness and self-other differentiation: Evidence from social and cultural psychology

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Self-inclusiveness and self-other differentiation: Evidence from cultural neuroscience

Self-inclusiveness and self-other differentiation in the bicultural brain: Bicultural frame switching model

Method

Bicultural participants

Western and Chinese culture primes

Scanning procedure

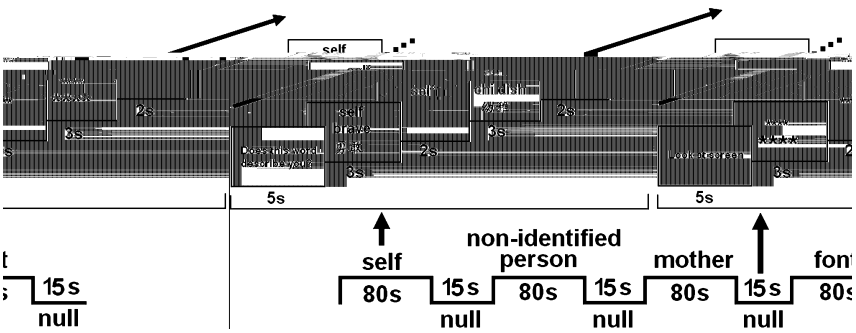
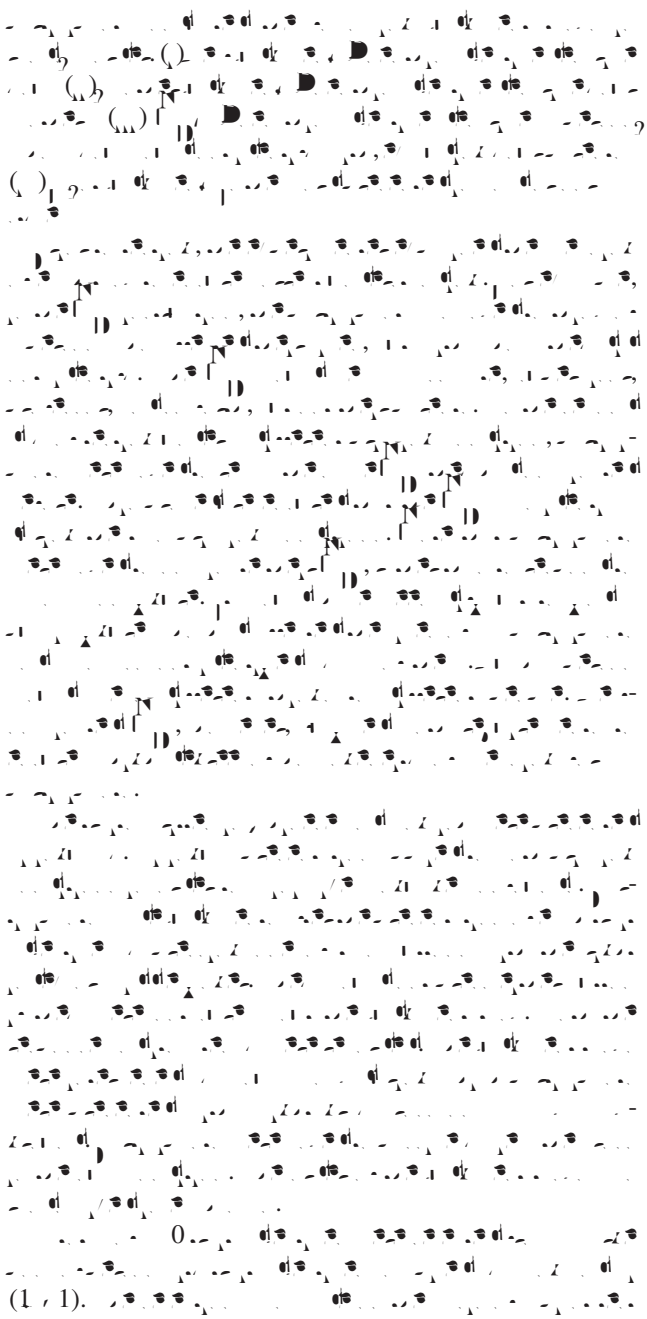


Figure 1 Illustration of the stimuli and procedure.



Results

Brain imaging

Table 1 Regions of significant increased activation in comparison between self, mother and NIP with font judgments (corrected, $p < 0.05$)

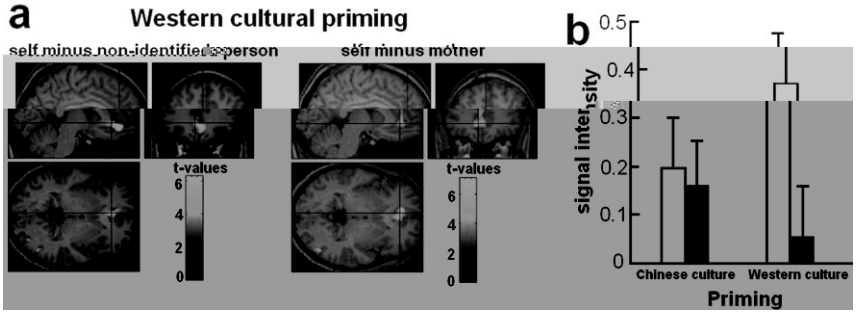


Figure 2 (a) Brain activation observed in the contrasts between self *vs* non-identified person and between self *vs* mother after Western cultural priming. (b) Results of region-of-interest analysis of the parameter estimates of signal intensity in the ventral medial prefrontal cortex. ■, non-identified person; □, self.

Table 2 Mean behavioural performances (*SD*) during the scanning procedure

(%)				
	( )	(1)	(0)	( )
	.1 (10.1)	(1)	1.1 (0.)	( )
( )				
	1 ( )	1 ( )	1 1 ( )	1 ( )
	1 ( )	1 0 ( )	1 (1)	1 1 ( )

($F($, 1) = , $p < 0.001$)

( ) ANOVA (vs) (vs) ($F(1,1) =$, $p < 0.0$, $MSE = 0.$). ANOVA

Behavioural performance

( ) × ( ) ANOVA ($P > 0.1$). ANOVA , $F($, 1) = , $p < 0.0001$.

Discussion

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