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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

### *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

[illegible]

### Western and Chinese culture primes

[illegible]

### Scanning procedure

[illegible]

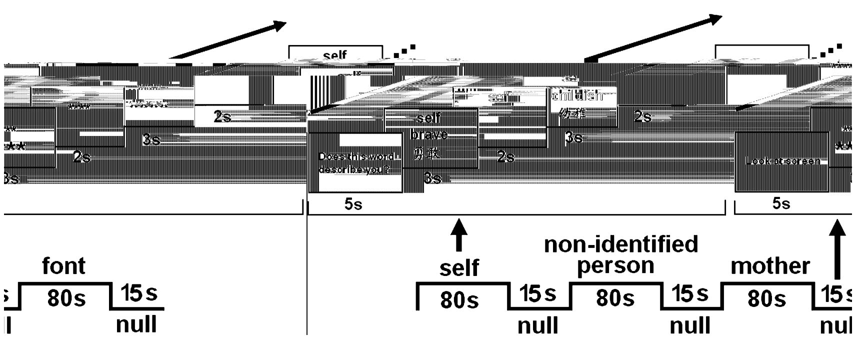


**Figure 1** Illustration of the stimuli and procedure.

[illegible]

[illegible]

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[illegible] 0 [illegible] (1 [illegible] 1). [illegible]

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## Results

### *Brain imaging*

[illegible]

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

[illegible]

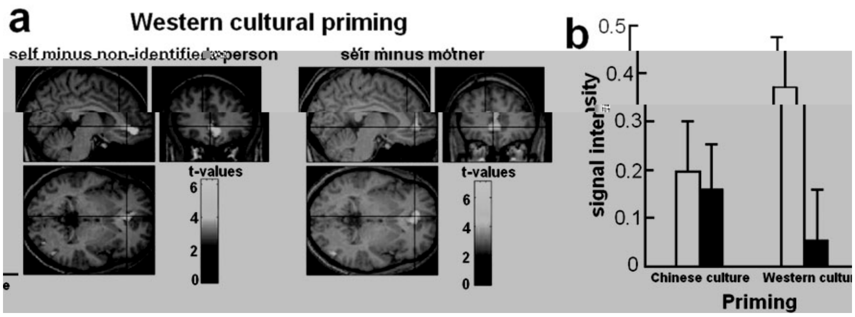


**Figure 2** (a) Brain activation observed in the contrasts between self *vs* non-identified person and between self *vs* mother after Western cultural priming. (b) Results of region-of-interest analysis of the parameter estimates of signal intensity in the ventral medial prefrontal cortex. ■, non-identified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

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

| | | | | |
|---|---|---|---|---|
| [illegible] (%) | [illegible] | [illegible] | [illegible] | [illegible] |
| [illegible] | [illegible] | [illegible] (1[illegible]) | [illegible] ([illegible]0.[illegible]) | [illegible] |
| [illegible] | [illegible].1 (10.1) | [illegible] (1[illegible]) | [illegible] 1.1 ([illegible]0.[illegible]) | [illegible] |
| [illegible] ([illegible]) | | | | |
| [illegible] | 1[illegible] | 1[illegible] | 1[illegible] | 1[illegible] |
| [illegible] | 1[illegible] | 1[illegible]0 ([illegible]) | 1[illegible] | 1[illegible] |

[illegible] ($F_{(\ldots)} = \ldots$, $p < 0.001$) [illegible]

[illegible] ANOVA [illegible] ( [illegible] *vs* [illegible] ) [illegible] ( [illegible] *vs* [illegible] ) [illegible] ($F(1,1\ldots) = \ldots$, $p < 0.0\ldots$, $MSE = 0.\ldots$). [illegible] ANOVA [illegible]

### Behavioural performance

[illegible]

[illegible] ANOVA [illegible] ($P > 0.1$). [illegible] ANOVA [illegible] $F(\ldots) = \ldots$, $p < 0.0001$. [illegible]

## Discussion

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[illegible] 010 [illegible]
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[illegible] (2010).

## Acknowledgements

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