

D, **P**, **U**, **B**, **C**
PKU IDG/M G I B R P U B C
S P U B E B , UK

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ABSTRACT

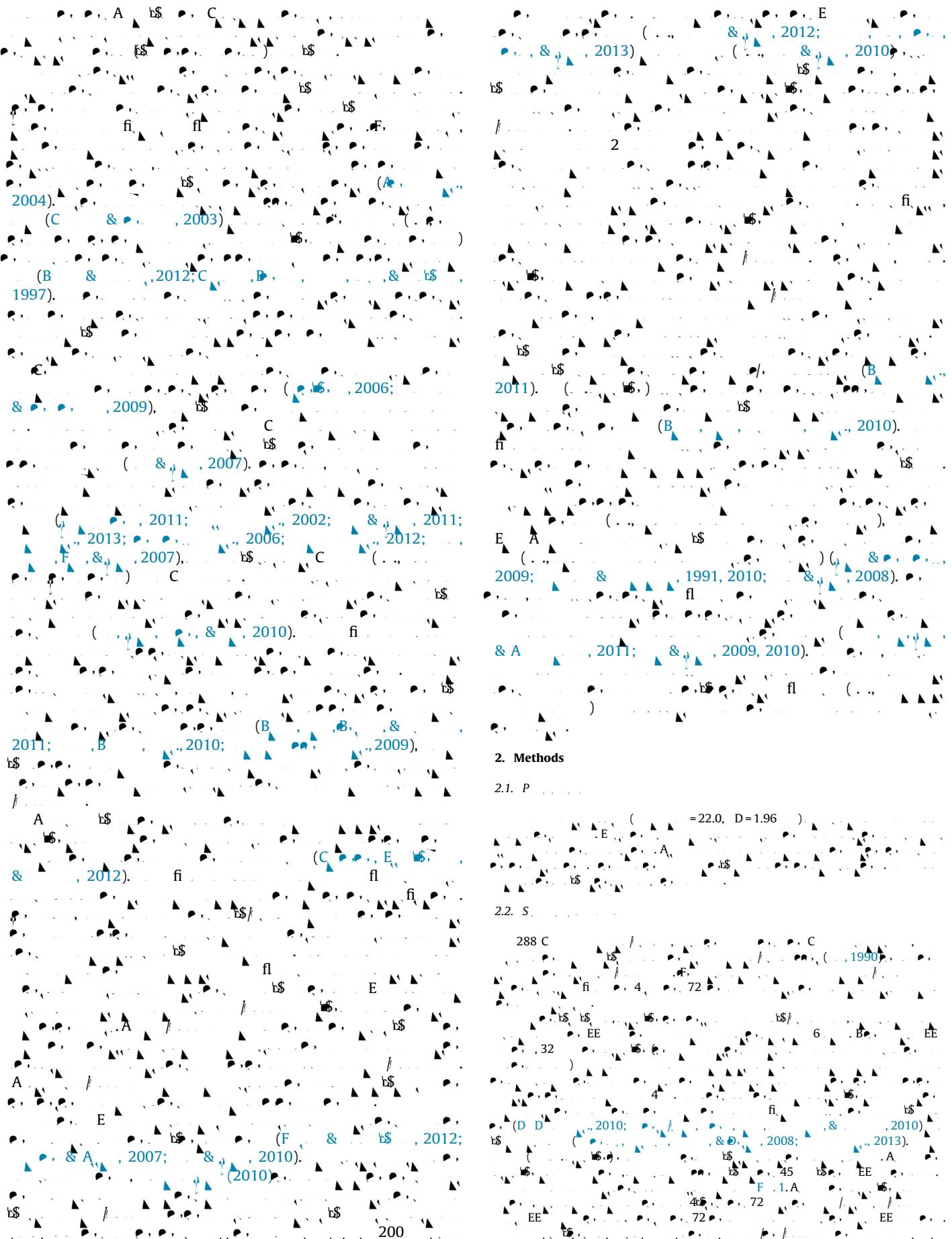
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1. Introduction

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F & F , 2005).
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& B , 2010; , 2011)
& B , 2007),
& B , 2009, C , 2010).

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Treatment

EEG Recording

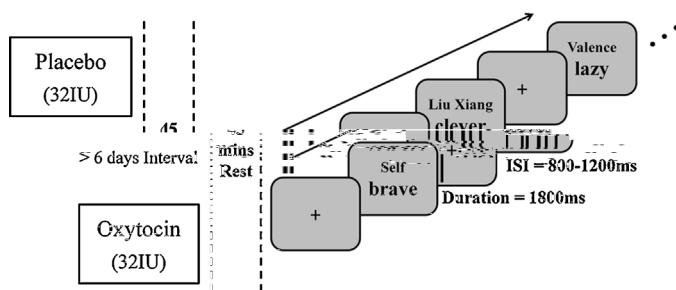
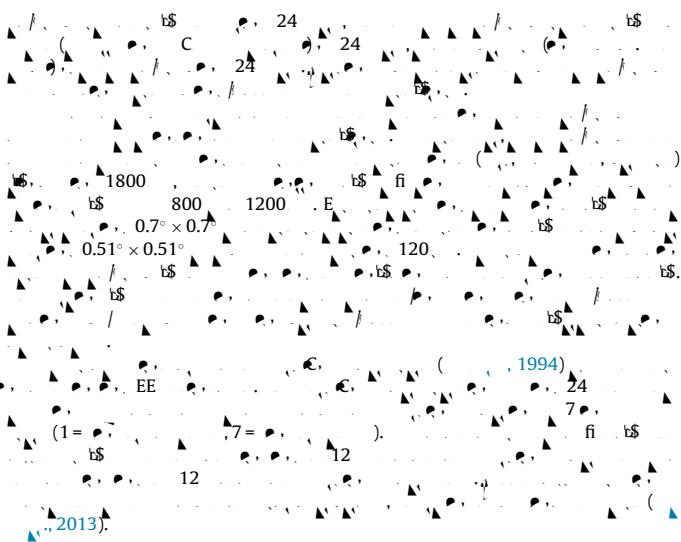
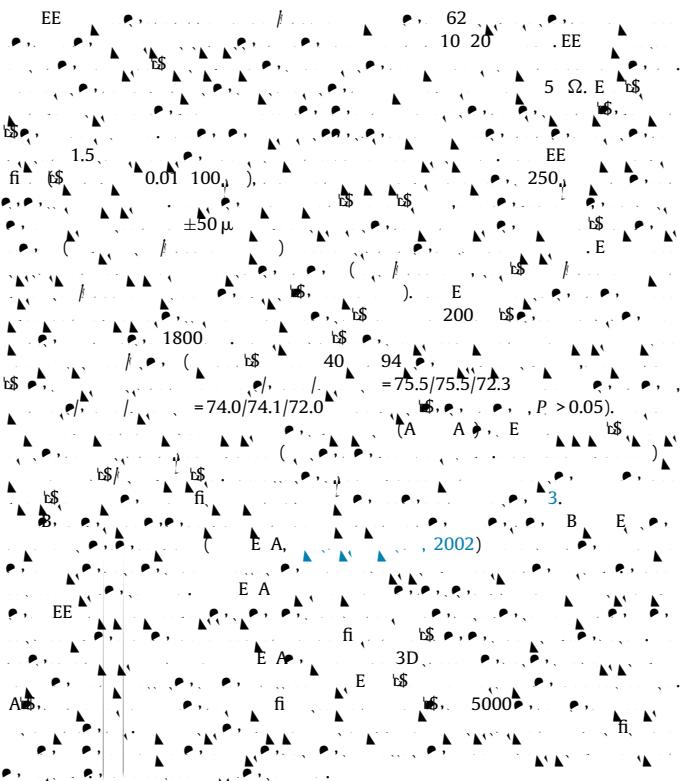


Fig. 1. Experimental design. (A) Treatment schedule. (B) Experimental paradigm. (C) Stimulus presentation.



2.3. EEG recording and analysis



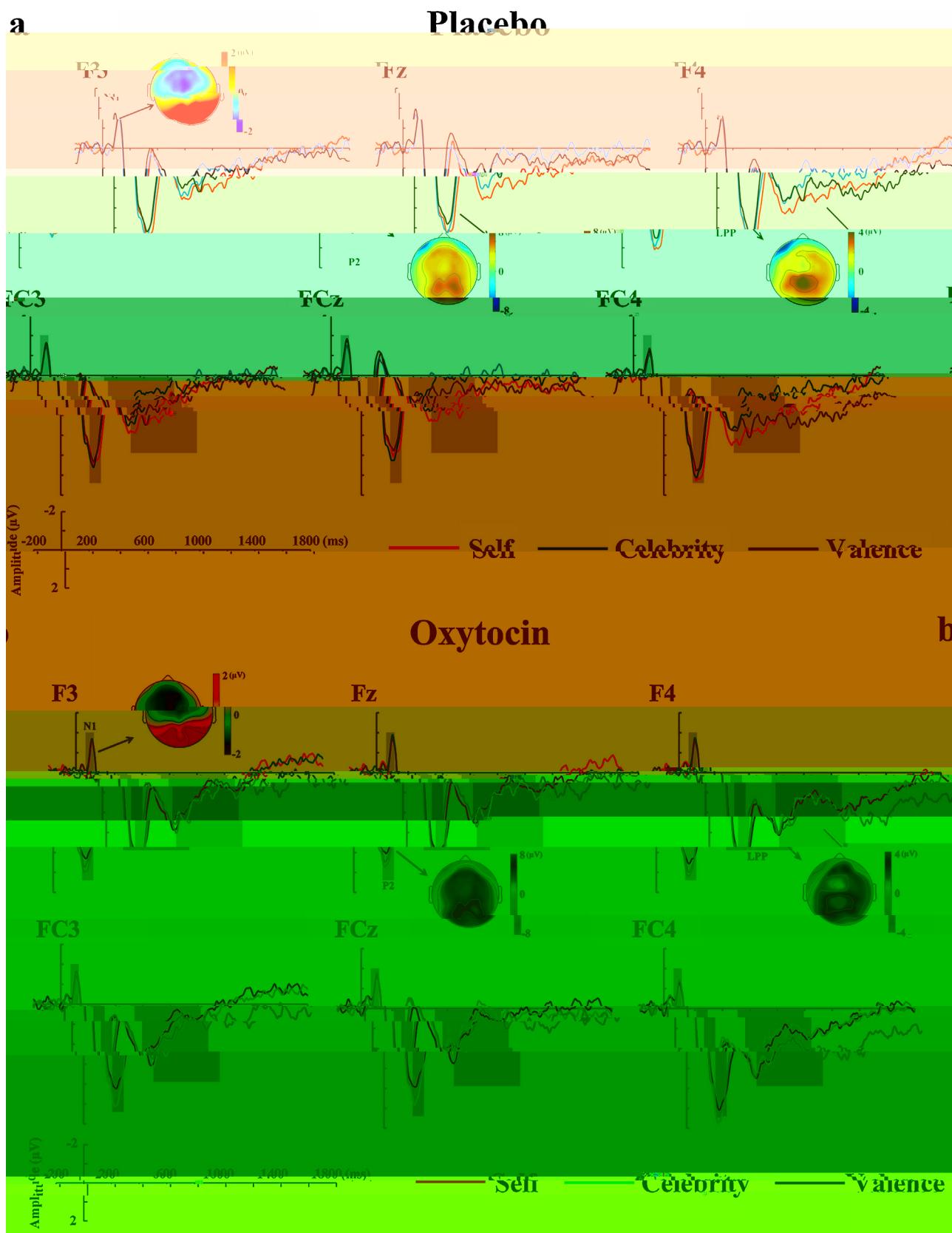


Fig. 2. Grand average topoplots and corresponding waveforms for F3, F4, Fz, FC3, FC4, FCz, N1, P2, LPP, and N2c. The topoplots are plotted for the Placebo (a) and Oxytocin (b) conditions. The waveforms are plotted for the three conditions (Self, Celebrity, Valence) across three time bins (200–600 ms, 600–1000 ms, 1000–1800 ms). The topoplots show the spatial distribution of activity, and the waveforms show the amplitude (in μ V) over time (in ms). Red traces represent the Self condition, black traces represent the Celebrity condition, and blue traces represent the Valence condition. The color scale indicates amplitude from -2 to 2 μ V.

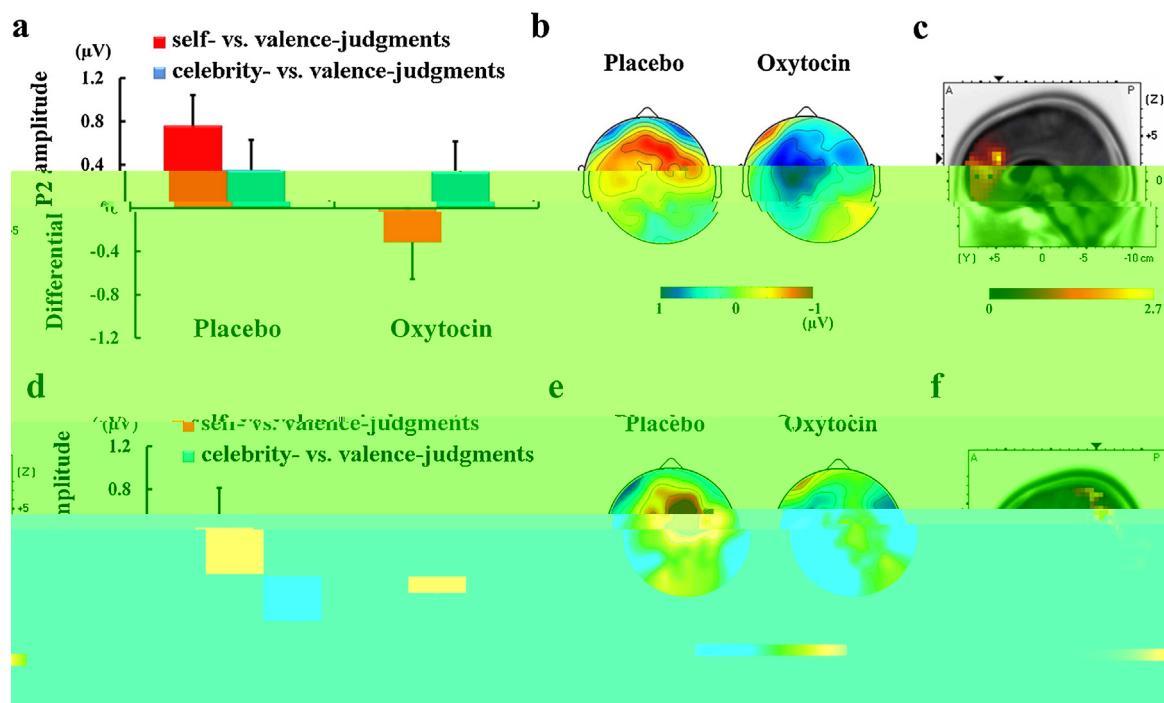


Fig. 3. ()

Plot Row	Plot Column	Correlation Pairs	F	P
Top	1	F2, F4, F6, F8, FC1, FC4, FC5, C3, C5, C, F	220, 280	$F < 3, P > 0.05$
Top	2	F2, F4, F6, F8, FC1, FC4, FC5, C3, C5, C, F	520, 1000	$F < 3, P > 0.05$
Top	3	F2, F4, F6, F8, FC1, FC4, FC5, C3, C5, C, F	2	$F(1, 19) = 8.51, 23.83, P < 0.01$
Middle	1	F4, F5, F6, F8, FC1, FC4, FC5, C3, C5, C, F	2	$F(1, 19) = 5.79, 7.72, P < 0.05$
Middle	2	F4, F5, F6, F8, FC1, FC4, FC5, C3, C5, C, F	2	$F(1, 19) = 8.49, 12.88, P < 0.01$
Middle	3	F4, F5, F6, F8, FC1, FC4, FC5, C3, C5, C, F	2	$F > 0.05$
Bottom	1	F2, F4, F6, F, FC1, FC4, FC5, C3, C6, F	2	$F < 2, P > 0.05$
Bottom	2	F2, F4, F6, F, FC1, FC4, FC5, C3, C6, F	2	$F(1, 19) = 5, 30, 25, F > 3, P < 0.05$
Bottom	3	F2, F4, F6, F, FC1, FC4, FC5, C3, C6, F	2	$F > 0.05$

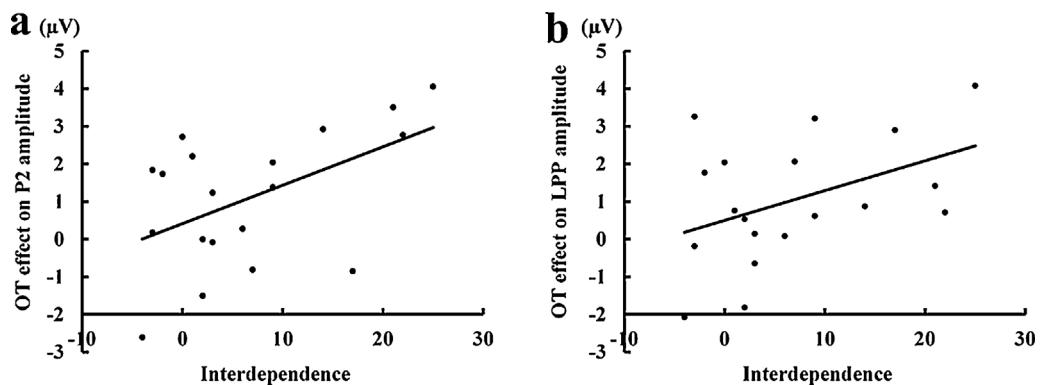


Fig. 4. (a) Scatter plot of the relationship between interdependence and the OT effect on P2 amplitude. (b) Scatter plot of the relationship between interdependence and the OT effect on LPP amplitude. The regression lines were calculated by the least squares method. The correlation coefficients are $r = 0.81$, $P < 0.05$ (F4, F5, FC1, FC4, FC5, C3, C5, C3, C5; F. 4a), $r = 0.48$, $P < 0.05$ (F2, F5, FC1; F. 4b).

4. Discussion

Previous studies have shown that the P2 component is associated with the processing of visual information (Kutas & Federmeier, 2010), and the LPP component is associated with memory storage (Friedman & Johnson, 2011), emotional processing (Friedman & Johnson, 2012), and executive control (Friedman & Johnson, 2012). In the present study, we found that the P2 amplitude was negatively correlated with the OT effect, while the LPP amplitude was positively correlated with the OT effect. These results suggest that the P2 component may be involved in the processing of visual information, while the LPP component may be involved in memory storage, emotional processing, and executive control. The negative correlation between P2 amplitude and the OT effect suggests that the P2 component may be involved in the processing of visual information, while the LPP component may be involved in memory storage, emotional processing, and executive control. The positive correlation between LPP amplitude and the OT effect suggests that the LPP component may be involved in memory storage, emotional processing, and executive control.

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