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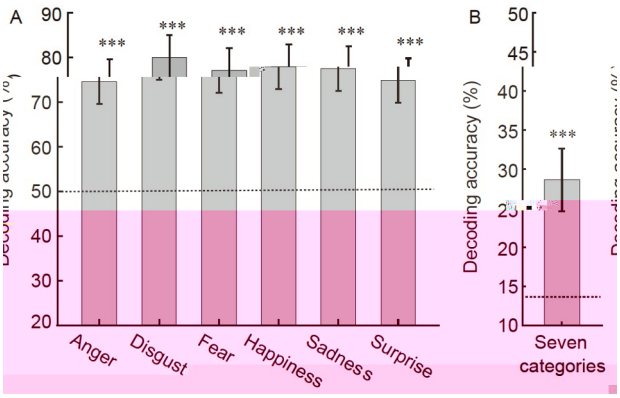

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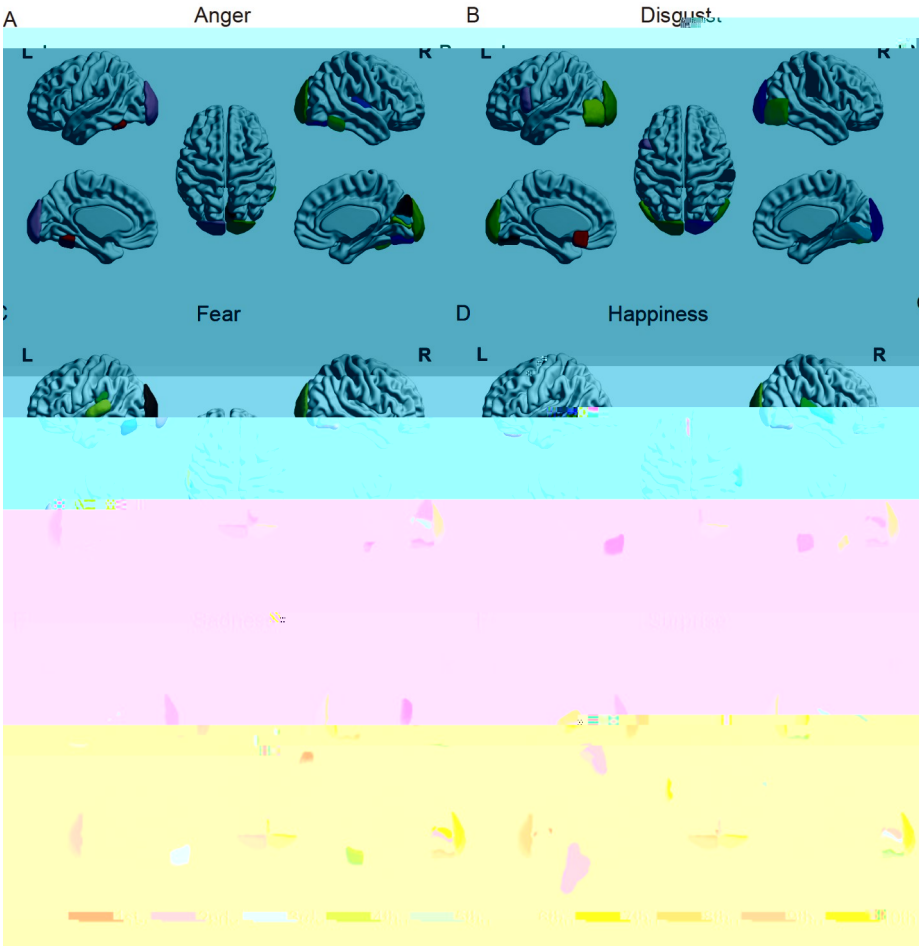

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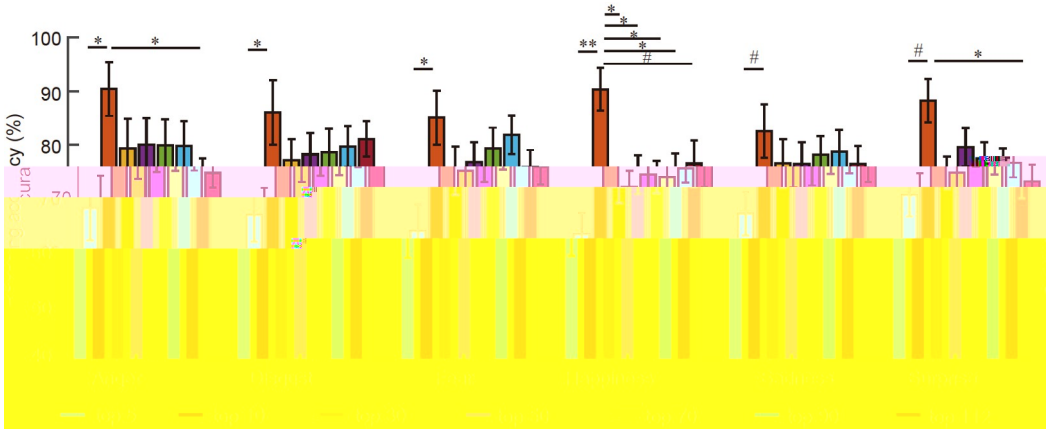

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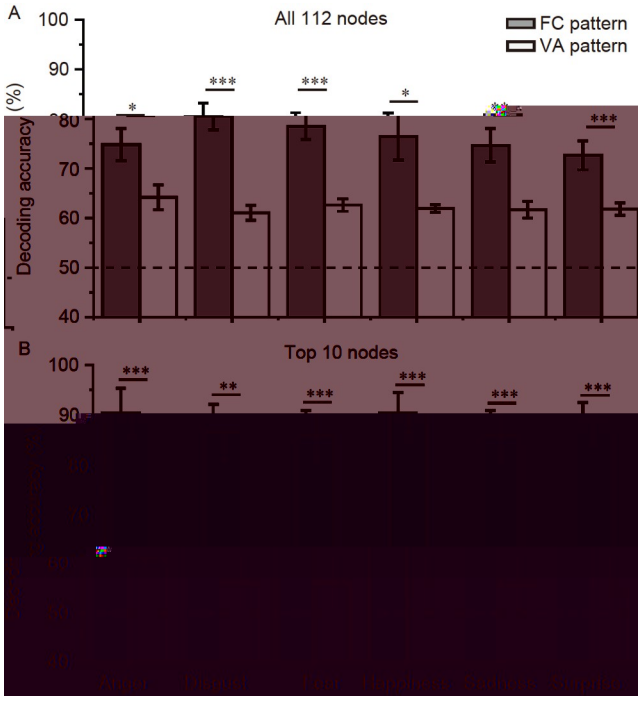

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$$\rho_{i,j,p,w}=\frac{\sum_{s=S_p}^{s=E_p}(y_{i,s}-\tilde{u}_{i,w})(y_{j,s}-\tilde{u}_{j,w})}{\sqrt{\left(\sum_{s=S_p}^{s=E_p}(y_{i,s}-\tilde{u}_{i,w})^2\right)\left(\sum_{s=S_p}^{s=E_p}(y_{j,s}-\tilde{u}_{j,w})^2\right)}}, \tag{5}$$

$\tilde{u}_{i,w}$

$$i(x_t)=\sum_{k\neq c}p\left(k\middle|x_t\right)p\left(c\middle|x_t\right), \tag{10}$$

$p\left(k\middle|x_t\right)$

$$X_t^k=(\rho_{i,j,p,w})_{i,j}, \tag{6}$$

X_t^k

x_t^k

$$\begin{aligned}x_t^k&=linearly\left\{lowhalf\left(X_t^k\right)\right\}\\&=linearly\left\{(\rho_{i,j})_{i,j(i>j)}\right\}\\&=(\rho_{2,1},\rho_{3,1},\dots,\rho_{112,1},\rho_{3,2},\dots,\rho_{112,111}),\end{aligned} \tag{7}$$

-

$$X^k=\left\{x_t^k|t=1,\dots,n\right\},X^k\subseteq\Omega^k, \tag{8}$$

$$\overline{W}=(w_1,w_2,\dots,w_{112}), \tag{11}$$

$\overline{W}$

$$\begin{aligned}Train&=\left\{\left(x_l,k\right)\middle|l=1,\dots,n_1\right\},x_l\in X^k,\\Test&=\left\{\left(x_q,k\right)\middle|q=1,\dots,n_2\right\},x_q\in X^k,\end{aligned} \tag{9}$$

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$$x_{v_i} = w_i * X, \tag{12}$$

$$x_v = (x_{v_1}, x_{v_2}, \ldots, x_{v_j})_{j \leqslant 112}, \tag{13}$$

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