

# Neural representations of close others in collectivistic brains



Our recent work showed that close relationships result in shared cognitive and neural representations of the self and one's mother in collectivistic individuals (Zhu et al., 2007, *Nature*, **34**, 1310–7). However, it remains unknown whether close others, such as mother, father and best friend, are differentially represented in collectivistic brains. Here, using functional magnetic resonance imaging (fMRI) we compared the neural representations of the self, mother, father and best friend in collectivistic Chinese individuals. We found that the neural representations of the self and mother were highly similar, while the representations of father and best friend were more distinct. These findings suggest that close relationships in collectivistic brains are represented in a shared neural space, but that the representations of different close others are differentially encoded.





$\frac{1}{2} \frac{d}{dt} \left( \frac{1}{2} m v^2 \right) = \frac{1}{2} m v \frac{dv}{dt}$

## RESULTS

The results of the experiment are shown in the following table. The values of  $v$  and  $\frac{dv}{dt}$  are calculated from the data.

Time (s)	Velocity (m/s)	Acceleration (m/s <sup>2</sup> )
0.0	0.0	0.0
0.2	0.1	0.5
0.4	0.2	0.5
0.6	0.3	0.5
0.8	0.4	0.5
1.0	0.5	0.5

The graph of velocity versus time shows a linear relationship, indicating constant acceleration. The slope of the line is 0.5 m/s<sup>2</sup>.

The graph of acceleration versus time shows a constant value of 0.5 m/s<sup>2</sup>, indicating constant acceleration.

The results are consistent with the theoretical prediction that the acceleration is constant and equal to  $g/2$ .







