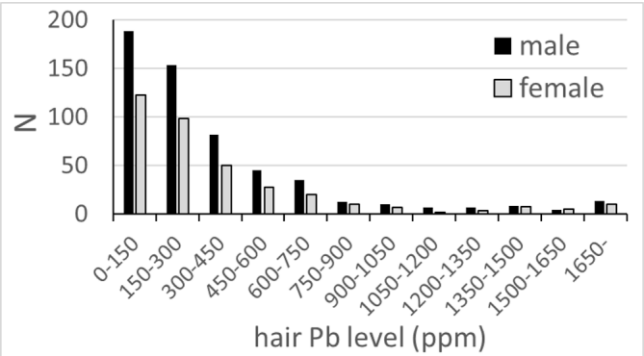


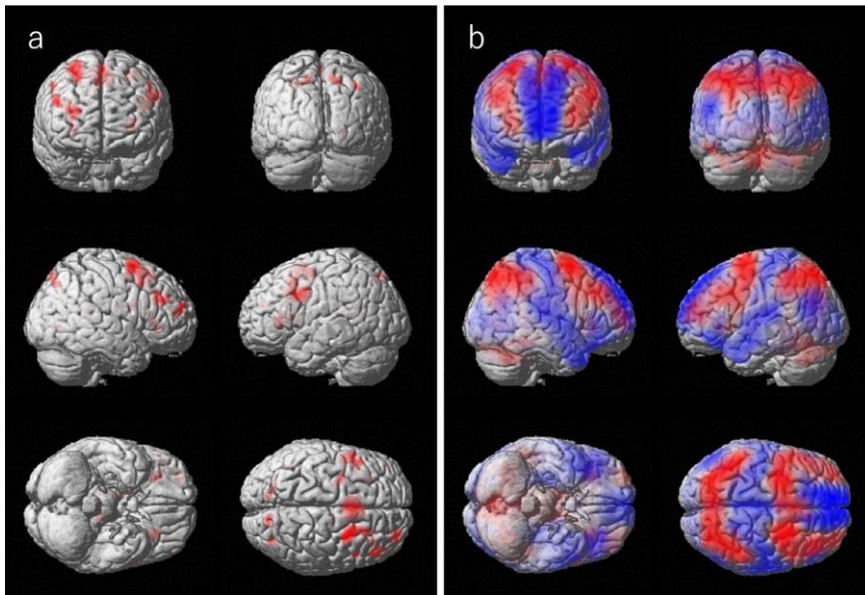
1     **Supplementary Information**

2     **Supplemental Fig. 1.**



4     **Supplemental Fig. 1.** Histograms showing raw hair lead levels in male and female  
5     subjects.

9 **Supplemental Fig. 2.**



10  
11 **Supplemental Fig. 2.** Tendencies of positive associations between increases in brain  
12 activity and hair lead levels (N = 892). (a) Regions with a tendency of positive  
13 associations between the brain activity of the contrast (2 back – 0-back) and hair lead  
14 levels were overlaid on a “render” image from SPM8. Results were obtained using a  
15 threshold of  $p < 0.001$ , uncorrected. Strong positive associations were found in areas  
16 showing an increase in brain activity in widespread areas of the fronto-parietal network  
17 demonstrating increased brain activation during the working memory test. (b) Areas of  
18 significant activation for the contrast (2-back–0-back) (red) and significant deactivation  
19 for the contrast (2-back–0-back) (green) were overlaid on a “render” image from SPM8.  
20 Results were obtained using a threshold of  $P < 0.05$ , corrected for FDR for the entire  
21 sample (N = 1235) with effective N-back fMRI activation data for this project <sup>1</sup>.

24    **Supplementary References**

- 25    1.     Takeuchi H, Taki Y, Nouchi R, Yokoyama R, Kotozaki Y, Nakagawa S *et al.*  
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