Supplementary Results

Visual (sighted) but not tactile Braille reading (blind) elicits a posterior-to-anterior functional gradient in left vOTC and shows left-lateralization

We first conducted a four-way hemisphere (left, right) by posterior/anterior subregion (posterior, middle, anterior) by lexicality (words, consonant strings, control) by group (sighted, blind) ANOVA to examine reading responses across groups.

This ANOVA revealed a significant hemisphere (left hemisphere > right hemisphere, $F_{(1, 32)} = 8.414$, $p < 0.01$), posterior/anterior subregion (posterior and middle > anterior, $F_{(2, 64)} = 9.74$, $p < 0.001$), and lexicality main effect (words and consonant strings > controls, $F_{(2, 64)} = 14.31$, $p < 0.001$). There was no group main effect ($F_{(1, 32)} = 0.732$, $p = 0.399$). For the two way interaction, the group by lexicality ($F_{(2, 64)} = 12.013$, $p < 0.001$), group by posterior/anterior subregion ($F_{(2, 64)} = 12.161$, $p < 0.001$), hemisphere by lexicality ($F_{(2, 64)} = 42.846$, $p < 0.001$) and the posterior/anterior subregion by lexicality ($F_{(4, 128)} = 9.237$, $p < 0.001$) interaction effect were significant. There were no hemisphere by group interaction effect ($F_{(1, 32)} = 0.748$, $p = 0.394$) or hemisphere by posterior/anterior subregion interaction effect ($F_{(1, 32)} = 1.44$, $p = 0.244$). For the three way interaction, the hemisphere by posterior/anterior subregion by group interaction ($F_{(2, 64)} = 3.72$, $p < 0.01$), the posterior/anterior subregion by lexicality by group interaction ($F_{(4, 129)} = 3.26$, $p < 0.05$), and the hemisphere by posterior/anterior subregion by lexicality interaction ($F_{(4, 129)} = 3.516$, $p < 0.01$)effect were significant. Neither the hemisphere by lexicality by group interaction ($F_{(2, 64)} = 2.165$, $p = 0.123$) nor the hemisphere by posterior/anterior subregion by lexicality interaction were significant. The four way interaction have been reported in main context.