**Executive impairments in binge drinking: evidence for a specific performance monitoring difficulty during alcohol-related processing.**

**Supplementary Materials**

*Statistical Analyses*

To explore the potential presence of a group difference on general speed processing, a first Analysis of Variance (ANOVA) was computed on correct Go trials RT through a 2x2x2 analysis with Group (BD, CP) as between-subjects factor and Content-related condition (Alcohol, Soft) and Speed (RT fast hits, RT slow hits) as within-subjects factors. A second ANOVA was then performed to evaluate the speed at which errors are made through 2x2x2 ANOVAs with Group (BD, CP) as between-subjects factor and Content-related condition (Alcohol, Soft) and Change-related condition (Content, Orientation) as within-subjects factors.

*Results*

- RT for Go trials: There was no main Group effect [*F*(1,42)=0.63, *p*=0.433, *η2p*=0.015] nor interaction involving Group (see Supplementary Table 1).

- RT for No-Go errors: There was no main Group effect [*F*(1,42)=0.29, *p*=0.596, *η*2p=0.007] nor interaction involving Group (see Supplementary Table 2).

**Supplementary Table 1.** Main effects and interactions for processing speed.

|  |  |
| --- | --- |
| Effects | **RT for correct Go** |
|  | *F*(1,42) | *p*-values | *η2p* |
| Group | 0.63 | 0.433 | 0.015 |
| Content-related condition | 1.81 | 0.186 | 0.041 |
| Speed | 782.37 | <0.001 | 0.949 |
| Group x Speed | 0.95 | 0.336 | 0.022 |
| Group x Content-related condition | 0.01 | 0.933 | 0 |
| Content-related condition x Speed | 0.19 | 0.667 | 0.004 |
| Group x Content-related condition x Speed | 0.81 | 0.375 | 0.019 |

**Supplementary Table 2.** Main effects and interactions for error-related RT.

|  |  |
| --- | --- |
| Effects | **RT for No-Go errors** |
|  | F(1,42) | *p*-values | *η*2p |
| Group | 0.29 | 0.596 | 0.007 |
| Content-related condition | 0.07 | 0.798 | 0.002 |
| Change-related condition | 9.11 | 0.004 | 0.178 |
| Group x Content-related condition | 0.08 | 0.785 | 0.002 |
| Group x Change-related condition | 0.46 | 0.500 | 0.011 |
| Content-related condition x Change-related condition | 0.06 | 0.816 | 0.001 |
| Group x Content-related condition x Change-related condition | 1.24 | 0.273 | 0.029 |