

High versus Low Level of Response to Alcohol: Evidence of Differential Reactivity to Emotional Stimuli

Supplemental Information

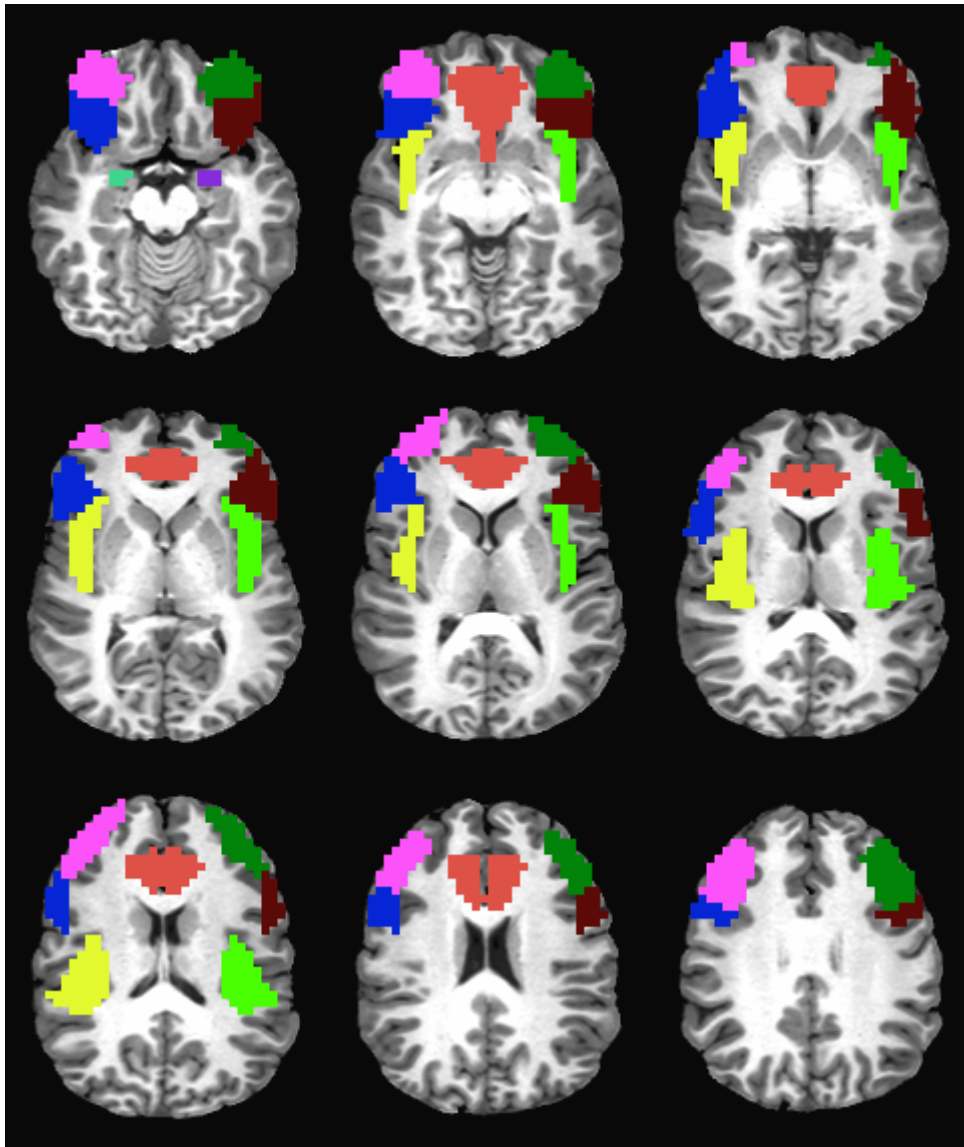


Figure S1 . Brain regions demonstrating all regions of interest evaluated in the analyses. As indicated by color: pink = left middle frontal gyrus; dark green = right middle frontal gyrus; blue = left inferior frontal gyrus; brown = right inferior frontal gyrus; yellow = left insula; bright green = right insula; turquoise = left amygdala; purple = right amygdala; orange = anterior cingulate.

Table S1. Whole Brain Analysis Regions Showing Significant LR Group or Group by Placebo/Alcohol Condition Interaction Effects in BOLD Response Contrast for Emotional Faces Relative to Oval (Non-Face) Trials. Results of a whole brain analysis for the same 116 subjects in Table 2 are presented in Table S1. Similar to Table 2 in the paper, most significant LR group or group by placebo/alcohol condition interaction effects were seen for happy faces. Also, similar to Table 2, in 7 of the 8 regions for happy faces, the low LR group demonstrated higher BOLD contrast values with placebo compared to alcohol, while high LR subjects showed the opposite pattern (lower BOLD contrast after placebo compared to alcohol) for six of the eight regions. As would be expected, compared to the region of interest results in Table 2, the whole brain analyses revealed some different regions for the BOLD contrast differences. As in Table 2, findings regarding LR groups were more mixed or absent for angry or fearful faces.

Anatomic Region ^x	Brodmann Area(s)	Volume (μl)	Talairach ^x			Low LR		High LR	
			x	y	z	Placebo Mean	Alcohol Mean	Placebo Mean	Alcohol Mean
Happy Faces									
L posterior cingulate ^z	23	2240	-2	-61	8	0.25	0.08 ^a	0.09	0.31 ^b
R inferior frontal gyrus ^z	13,45,47	1920	54	32	0	0.12	-0.11 ^a	-0.05	0.17 ^b
R anterior medial frontal gyrus ^z	10,11	1408	6	51	-8	0.21	-0.04 ^a	-0.02	0.32 ^b
R posterior medial frontal gyrus ^z	6,24,31	1344	2	-20	61	0.11	-0.05 ^a	-0.01	0.09 ^b
R middle temporal gyrus ^y	21	2240	54	-5	-16	0.03	-0.07 ^a	0.17	0.16 ^a
L inferior frontal gyrus ^y	47	1664	-42	27	-4	0.03	-0.06 ^a	0.13	0.18 ^b
R fusiform gyrus ^y	20,37	1600	50	-53	-16	-0.08	-0.07 ^b	0.20	0.11 ^a
L fusiform gyrus ^y	19,37	1408	-50	-57	-16	-0.06	-0.10 ^a	0.17	0.21 ^b
Angry Faces									
L inferior parietal lobule ^z	40	2560	-42	-49	48	-0.05	0.02 ^b	0.08	-0.04 ^a
L middle frontal gyrus ^z	9	2048	-50	19	32	0.06	0.20 ^b	0.28	0.01 ^a
L precentral gyrus ^z	6	1856	-38	-1	40	0.03	0.07 ^b	0.10	-0.04 ^a

R right; L left; LR, level of response; BOLD, blood-oxygen level-dependent.

^x Talairach coordinates refer to peak effect group difference within the cluster.

^y Significant group effect, $p < 0.05$, Clusters $\geq 1,344$ μl.

^z Significant group by condition effect, $p < 0.05$, Clusters $\geq 1,344$ μl.

^a BOLD response contrast *decreased* from placebo to alcohol conditions.

^b BOLD response contrast *increased* from placebo to alcohol conditions.