

Data supplement

Table DS1 Subjective ratings of mood, feelings and hunger prior to being scanned for the FH group and control group.

Measure	Group			
	FH (n=15)		Controls (n=21)	
	Mean	SEM	Mean	SEM
VAS	2.84	0.23	2.76	0.20
BFS	13.5	3.25	22.27	6.38
Hunger	5.14	0.31	5.83	0.41

VAS, Visual Analogue Scale. BFS, Befindlichkeits Scale, Hunger Scale

^a $p < 0.05$ Independent Samples T-Test

Table DS2 Regions showing significant effects of task for all participants.

Brain region	MNI coordinates				
	X	Y	Z	z-score	P
Chocolate taste:					
Thalamus	0	-10	14	3.3	<.01
Insula	32	10	-18	3.16	<.01
LOFC/insula	46	24	-14	3.53	<.001
Chocolate cue:					
Caudate	8	22	0	2.67	<.05
LOFC	-26	-90	4	4.76	<.001
ACC	0	22	26	2.68	<.05
Aversive taste:					
Brain stem	2	-10	-16	2.7	<.05
ACC	2	32	12	2	<.05*
Ventral striatum	8	8	-8	2.18	<.01*
Aversive cue:					
Ventral striatum	-6	4	-4	2.57	<.05
Occipital gyrus	24	-86	-10	5.85	<.01
dACC	2	4	40	2.47	<.05
LOFC/Insula	50	16	-14	3.02	<.01

LOFC, lateral orbitofrontal cortex; ACC, anterior cingulate cortex; dACC, dorsal anterior cingulate cortex; p value clusters small volume corrected (family-wise error FWE $p < .05$).

Corrected for multiple comparisons.

Coordinates are defined in the Montreal Neurological Institute (MNI) stereotactic space. *; uncorrected FWE

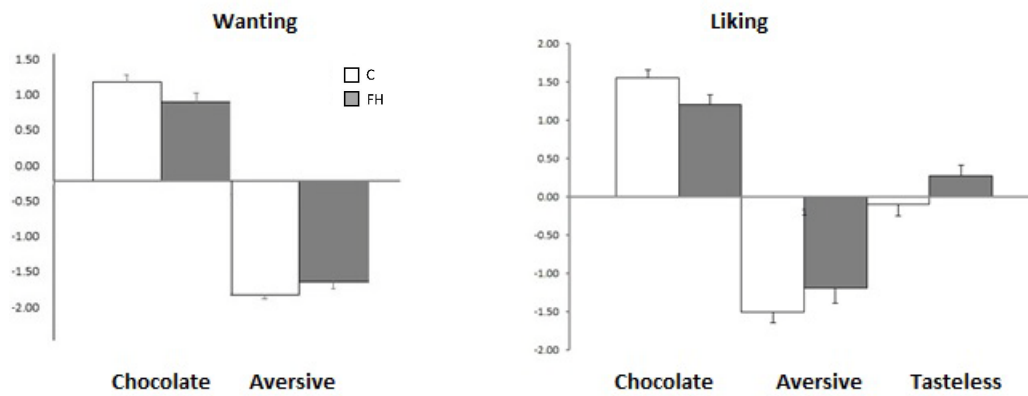


Fig. DS1 The ratings made in the scanner for wanting and liking of each of the tastes.

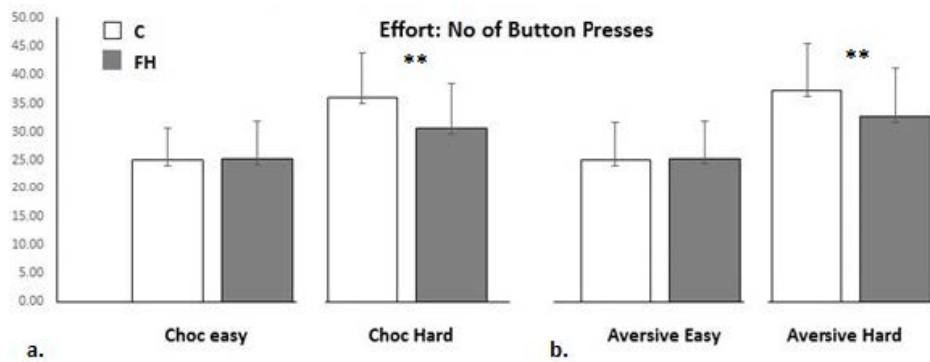


Fig. DS2 Number of button presses for FH group and C group; **P<.01.

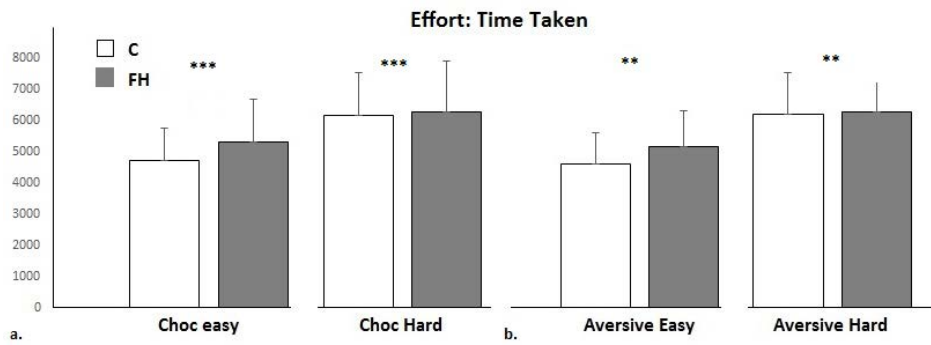


Fig. DS3 Time taken to complete effort phase for FH group and C group; *** $P < .001$, ** $P < .01$.

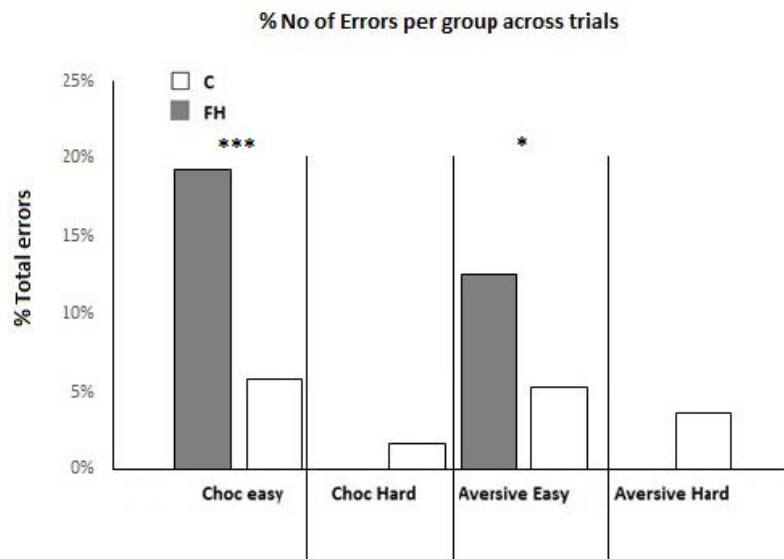


Fig. DS4 Accuracy across trials for FH group and C group; *** $P < .001$, * $P < .05$.

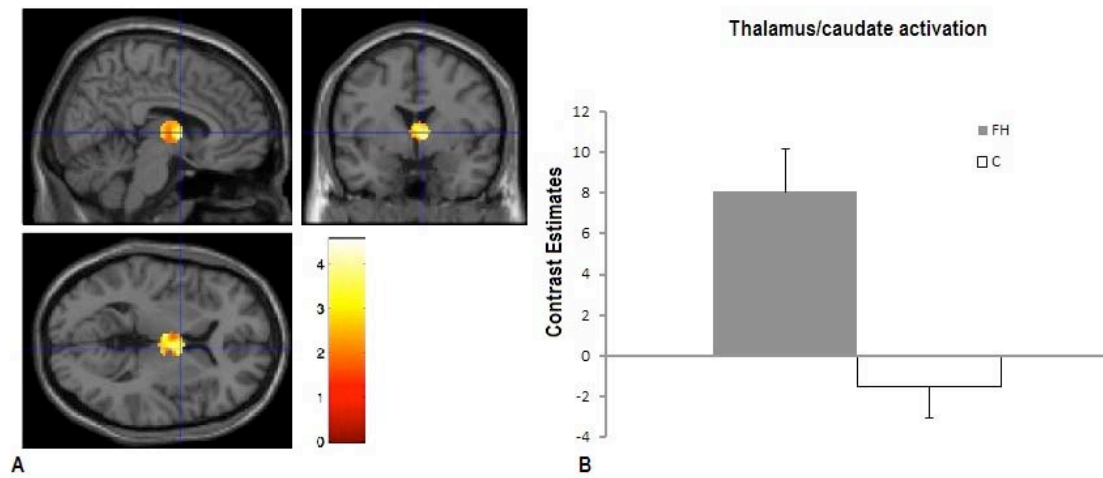


Fig. DS5 Chocolate cue: **(A)** Axial, sagittal and coronal image of increased caudate activation in FH vs. C group. **(B)** Contrast estimates centred at 4, -6, 6 (thalamus/caudate) in FH and C groups.

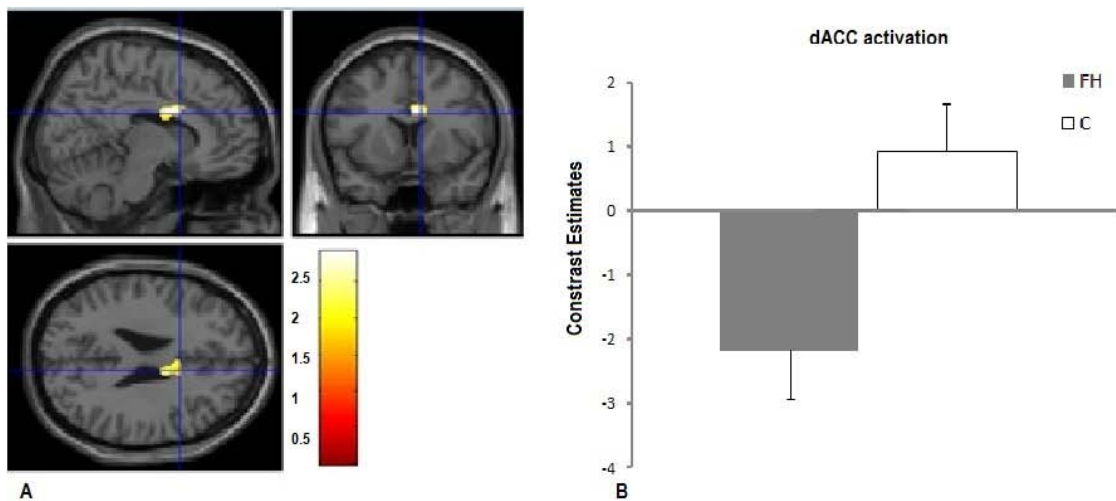


Fig. DS6 Unpleasant taste: **(A)** Axial, sagittal and coronal image of decreased dACC activation in FH vs. C group. **(B)** Contrast estimates centred at 10, 4, 28 (dACC) in FH and C groups.