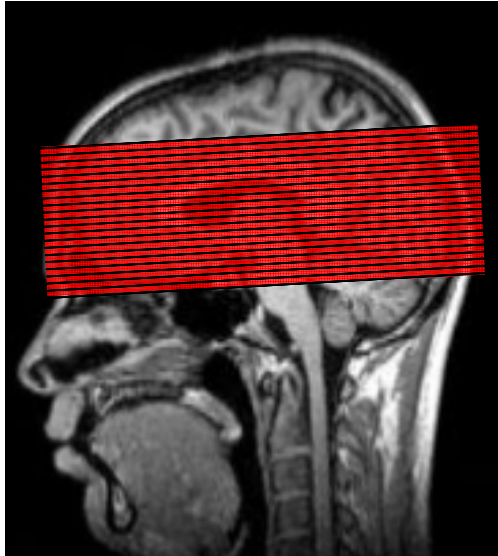# Supplementary material

Appendix 1

Schematic alignment of functional scans covering the reward system of the brain (ref. Bjork et al., 2004; Knutson et al, 2001a)

Appendix 2

To specifically test our hypothesis of whether the NAcc reacted sensitively to increasing values of anticipated reward we extracted parameter estimates in a region of interest (ROI) (a sphere of 5mm radius at the coordinates x=-9, y=10, z=0 for the left NAcc and x=11, y=12, z=0 for the right NAcc) based on the results reported by Knutson et al. (2003). Parameter estimates of each side were entered into an ANOVA on repeated measures with within factors 'task' (monetary, social) and 'incentive magnitude' (low, medium, high) and between factor 'gender' (female, male).

Table 1: Results of the ANOVA:

Factor	Nacc left	Nacc right
task	0.123 (n.s.)	6.724*
incentive magnitude	26.463***	29.307***
task x incentive magnitude	2.183 (n.s.)	2.029 (n.s.)
gender x task	3.350 (n.s.)	0.219 (n.s.)
gender x incentive magnitude	1.593 (n.s.)	2.187 (n.s.)
gender x task x incentive magnitude	2.651 (n.s.)	0.465 (n.s.)

* The effect is significant at the .05 level.
*** The effect is significant at the .001 level.
n.s. = not significant

Table 2: Results of the pairwise comparison for the left NAcc:

Level of Reward Magnitude	Level of Reward Magnitude	Mean Difference	Std. Error	Sig.(a)
1	2	-.253	.220	1.000
	3	-1.372(*)	.241	.000
	4	-1.778(*)	.297	.000
2	1	.253	.220	1.000
	3	-1.118(*	.192	.000
	4	-1.525(*)	.220	.000
3	1	1.372(*)	.241	.000
	2	1.118(*)	.192	.000
	4	-.406	.232	.544
4	1	1.778(*)	.297	.000
	2	1.525(*)	.220	.000
	3	.406	.232	.544

Based on estimated marginal means
* The mean difference is significant at the .05 level.
a Adjustment for multiple comparisons: Bonferroni.

Table 3: Results of the pairwise comparison for the right NAcc

Level of Reward Magnitude	Level of Reward Magnitude	Mean Difference	Std. Error	Sig.(a)
1	2	-.317	.324	1.000
	3	-1.539(*)	.285	.000
	4	-2.033(*)	.345	.000
2	1	.317	.324	1.000
	3	-1.222(*)	.175	.000
	4	-1.715(*)	.435	.008
3	1	1.539(*)	.285	.000
	2	1.222(*)	.175	.000
	4	-.493	.356	1.000
4	1	2.033(*)	.345	.000
	2	1.715(*)	.435	.008
	3	.493	.356	1.000

Based on estimated marginal means
* The mean difference is significant at the .05 level.
a Adjustment for multiple comparisons: Bonferroni.

Appendix 3

Comparison of MID and SID (two and three horizontal lines > no outcome)

In both tasks (MID and SID), contrasting the two highest reward conditions (circle with two and three horizontal lines) with the 'no outcome'-condition (triangle) led to activation of brain areas constituting the human reward system. Specifically the ventral striatum was activated for both, anticipation of monetary reward as well as social reward vs. anticipation of no outcome (left & right NAcc during anticipation of monetary incentives: x=-9, y=12; z=-1 & x=12, y=15, z=-1); p<0.05 FWE; left & right NAcc during social incentive: x=-12, y= 6, z= 0 & x=12, x=6, z=5; p<0.001 uncorrected) (see table 4).

Table 4: Brain regions activated during the anticipation of monetary or social rewards:

	BA	MNI-coordinates			Peak z-score	Cluster size
		x	y	z		
MID (two and three horizontal lines > no outcome)						
L putamen		-21	8	-8	**5.88**	**48***
L NAcc		-9	12	-1	5.01	
R NAcc		12	15	-1	**5.70**	**39***
R cuneus	18	12	-72	15	**5.26**	**28***
R inferior middle occipital lobe	18/19	33	-87	10	**5.36**	**22***
thalamus		0	-32	2	**5.03**	**9***
L inferior middle occipital lobe	18/19	-21	-87	10	**5.28**	**8***
R anterior cingulum		18	35	-2	**5.37**	**7***
SID (two and three horizontal lines > no outcome)						
R inferior middle occipital lobe	18/19	21	-87	10	**5.67**	**61****
L inferior middle occipital lobe	18/19	-24	-90	13	**4.84**	**35****
L putamen		-18	12	-1	**3.95**	**27****
L NAcc		-12	6	0	3.18	
R putamen		21	9	11	**3.50**	**11****
R inferior frontal gyrus		30	32	-2	**3.46**	**11****
R NAcc		12	6	5	**3.69**	**7****
thalamus		0	-17	12	**3.48**	**5****
		0	-5	9	**3.47**	**5****

*cluster defined using p<.05 FWE; **p<0.001 uncorrected