

Internal Consistency of Functional Magnetic Resonance Imaging and Electroencephalogram Measures of Reward in Late Childhood and Early Adolescence

Supplemental Information

Supplemental Table S1. One Way T-tests for fMRI Contrasts

Split Type	Region	X	Y	Z	Cluster Size mm	Gain		Loss		SCOREs	
						t	p	t	p	t	p
Even	L Ventral Striatum	-13	7	-8	3582	6.69	<0.001	-2.15	0.033	7.77	<0.001
	R Ventral Striatum	13	7	-8	2191	6.06	<0.001	-2.28	0.024	6.95	<0.001
	Medial PFC	6	63	3	781	2.42	0.016	-3.84	<0.001	6.67	<0.001
	L LPFC	-43	54	3	3887	8.10	<0.001	2.60	0.010	6.33	<0.001
	R LPFC	29	58	-5	1277	10.36	<0.001	6.03	<0.001	5.58	<0.001
Odd	L Ventral Striatum	-13	7	-8	3582	6.22	<0.001	-0.65	0.517	6.45	<0.001
	R Ventral Striatum	13	7	-8	2191	5.89	<0.001	-1.14	0.254	6.23	<0.001
	Medial PFC	6	63	3	781	3.24	0.001	-3.22	0.002	6.53	<0.001
	L LPFC	-43	54	3	3887	7.55	<0.001	1.67	0.097	5.20	<0.001
	R LPFC	29	58	-5	1277	9.36	<0.001	3.69	<0.001	5.43	<0.001

SCOREs = Gain-Loss, L=Left, R=Right, PFC=Prefrontal Cortex, LPFC=Lateral Prefrontal Cortex

Supplemental Table S2. Even versus Odd Paired T-tests for fMRI Contrasts and ERPs

Region	X	Y	Z	Cluster Size	Gain		Loss		SCOREs	
					t	p	t	p	t	p
L Ventral Striatum	-13	7	-8	3582	1.50	0.135	-1.67	0.096	2.18	0.031
R Ventral Striatum	13	7	-8	2191	0.78	0.437	-1.29	0.200	1.43	0.154
Medial PFC	6	63	3	781	-0.43	0.666	-0.24	0.808	-0.11	0.910
L LPFC	-43	54	3	3887	1.34	0.183	0.59	0.559	0.39	0.695
R LPFC	29	58	-5	1277	1.58	0.116	1.63	0.106	-0.21	0.836
ERP					-0.64	0.524	-0.23	0.815	-0.31	0.759

SCOREs = Gain-Loss, L=Left, R=Right, PFC=Prefrontal Cortex, LPFC=Lateral Prefrontal Cortex, ERP=Event-Related Potential

Supplemental Table S3. Pearson Correlation Coefficients Between Win and Loss Response (fMRI) for Even/Odd Split-Halves within Reward ROIs

Region	X	Y	Z	Cluster Size mm	Even Trials	Odd Trials
L Ventral Striatum	-13	7	-8	3582	0.40	0.55
R Ventral Striatum	13	7	-8	2191	0.36	0.49
Medial	6	63	3	781	0.57	0.53
L LPFC	-43	54	3	3887	0.58	0.55
R LPFC	29	58	-5	1277	0.62	0.63

L=Left, R=Right, PFC=Prefrontal Cortex, LPFC=Lateral Prefrontal Cortex

Supplemental Table S4. Intraclass Correlation Coefficients for fMRI and EEG Measures

Region	Gain	Loss	SCOREs	SCOREr
L Ventral Striatum	0.78	0.73	0.34	0.56
R Ventral Striatum	0.75	0.70	0.32	0.54
Medial PFC	0.69	0.66	0.02	0.34
L LPFC	0.79	0.71	0.20	0.49
R LPFC	0.80	0.74	0.04	0.36
ERP	0.86	0.86	0.37	0.49

Intraclass correlation coefficients calculated in SPSS using a mixed effects model and absolute agreement.

SCOREs = gain-loss, SCOREr = unstandardized residual gain controlling for loss, L=Left, R=Right, PFC=Prefrontal Cortex, LPFC=Lateral Prefrontal Cortex, ERP=Event-Related Potential

Supplemental Table S5. Intraclass Correlation Coefficients for the First and Second Half of Trials

	Gain		Loss		SCOREs		SCOREr	
	1st Half	2nd Half	1st Half	2nd Half	1st Half	2nd Half	1st Half	2nd Half
L V Striatum	0.77	0.62	0.71	0.64	0.36	0.43	0.55	0.54
R V Striatum	0.72	0.59	0.64	0.66	0.27	0.42	0.50	0.52
M PFC	0.73	0.50	0.71	0.59	0.44	0.13	0.55	0.36
L PFC	0.81	0.58	0.70	0.63	0.32	0.26	0.55	0.45
R PFC	0.82	0.46	0.74	0.65	0.38	0.13	0.58	0.24
ERP	0.79	0.75	0.75	0.77	0.21	0.39	0.45	0.51

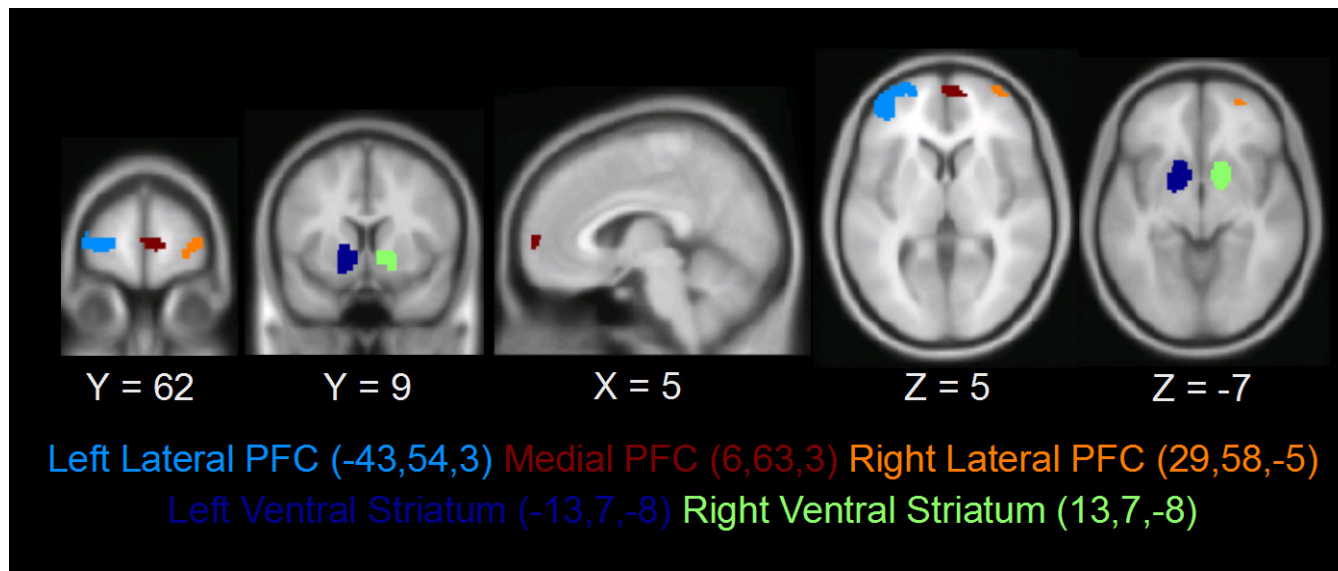
Intraclass correlation coefficients calculated in SPSS using a mixed effects model and absolute agreement.

SCOREs = gain-loss, SCOREr = unstandardized residual gain controlling for loss, L=Left, R=Right, PFC=Prefrontal Cortex, LPFC=Lateral Prefrontal Cortex, ERP=Event-Related Potential.

Supplemental Table S6. Test Statistics for Age Interaction Terms from Age Moderation of Split-Half Relationships

	Gain				Loss				SCOREs				SCOREr			
	1ST HALF		2ND HALF		1ST HALF		2ND HALF		1ST HALF		2ND HALF		1ST HALF		2ND HALF	
	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P
LVS	1.52	0.130	0.44	0.660	-0.05	0.962	1.26	0.209	1.13	0.262	0.29	0.775	1.87	0.063	0.43	0.670
RVS	0.64	0.521	0.29	0.769	1.33	0.186	0.54	0.593	1.68	0.094	-0.35	0.730	1.91	0.058	0.54	0.592
MPFC	-1.22	0.225	-1.21	0.229	0.06	0.949	-1.81	0.072	0.40	0.692	-1.73	0.086	-0.28	0.780	-1.30	0.195
LPFC	-0.13	0.898	-1.96	0.052	-0.89	0.375	0.85	0.397	-1.15	0.250	-1.92	0.057	0.37	0.710	-2.21	0.002
RPFC	0.05	0.962	0.19	0.847	0.55	0.582	0.77	0.445	-0.48	0.633	-0.61	0.540	-0.60	0.552	-0.69	0.494
ERP	1.62	0.107	0.44	0.660	-1.33	0.186	-0.77	0.443	-0.01	0.994	-0.31	0.758	1.62	0.107	0.64	0.524

SCOREs = gain-loss, SCOREr = unstandardized residual gain controlling for loss, L=Left, R=Right, PFC=Prefrontal Cortex, LPFC=Lateral Prefrontal Cortex, ERP=Event-Related Potential



Supplemental Figure S1. fMRI Regions of Interest. Coordinates in MNI space. PFC=prefrontal cortex.