

Supplementary tables for: Corticostriatal white matter integrity and dopamine D1 receptor availability independently predict age differences in prefrontal value signaling during reward learning.

Supplementary table 1. Univariate and multivariate standardized coefficients (95% confidence intervals) predicting the expected-value signal in vmPFC. Both D1-R BP_{ND} and FA in the connection between NAcc and vmPFC independently predicted the strength of this value signal.

Dependent: Q_vmPFC	Coefficient (univariate)	Coefficient (multivariate)
age	-0.32 (-0.61 to -0.03, p=0.030)	0.25 (-0.23 to 0.73, p=0.296)
D1-R in NAcc	0.41 (0.12 to 0.69, p=0.006)	0.41 (-0.01 to 0.83, p=0.058)
accumbofrontal FA	0.47 (0.20 to 0.74, p=0.001)	0.42 (0.04 to 0.81, p=0.032)
inferior frontal fasciculus FA	-0.23 (-0.52 to 0.07, p=0.130)	-0.08 (-0.38 to 0.23, p=0.612)

Supplementary table 2 and 3. Univariate and multivariate standardized coefficients (95% confidence intervals) predicting the proportion of optimal switches and optimal choices on the TAB from D1-R BP_{ND} in NAcc, FA in the connection between NAcc and vmPFC, and the expected-value signal in vmPFC. The expected-value signal is the only significant predictor of behavior in a multiple regression model. Univariate coefficients represent the result of bivariate correlations, whereas multivariate coefficients represent multiple regression coefficients.

Dependent: % optimal switches	Coefficient (univariate)	Coefficient (multivariate)
age	-0.20 (-0.50 to 0.10, p=0.184)	-0.00 (-0.51 to 0.51, p=0.999)
D1-R in NAcc	0.19 (-0.12 to 0.49, p=0.221)	-0.03 (-0.50 to 0.44, p=0.892)
vmPFC-accumbens FA	0.30 (0.01 to 0.59, p=0.046)	0.15 (-0.24 to 0.55, p=0.443)
Q in vmPFC	0.43 (0.15 to 0.70, p=0.003)	0.37 (0.03 to 0.71, p=0.034)

Dependent: % optimal choices	Coefficient (univariate)	Coefficient (multivariate)
age	-0.30 (-0.59 to -0.01, p=0.046)	-0.50 (-1.02 to 0.01, p=0.054)
D1-R in NAcc	0.13 (-0.17 to 0.44, p=0.389)	-0.36 (-0.82 to 0.11, p=0.131)
vmPFC-accumbens FA	0.20 (-0.10 to 0.50, p=0.186)	-0.11 (-0.50 to 0.29, p=0.582)
Q in vmPFC	0.34 (0.05 to 0.62, p=0.021)	0.37 (0.03 to 0.71, p=0.033)