

Table SI. Spearman correlations between variables.

		VPA score	IQ	Sensation Seeking	Perseverance	Premeditation	Urgency	Age	YFAS symp
BMI (kg/m²)	ρ	.001	-.048	.001	.064	.017	.040	.013	.372
	p	.992	.629	.992	.519	.865	.684	.897	<.001
YFAS symp	ρ	.082	-.110	-.211	-.016	-.190	.350	-.187	
	p	.408	.266	.030	.875	.053	<.001	.056	
Age	ρ	-.099	-.203	-.003	.014	.013	-.132		
	p	.314	.038	.975	.886	.895	.180		
Urgency	ρ	-.121	-.023	-.054	.344	.113			
	p	.222	.817	.583	<.001	.253			
Premeditation	ρ	-.192	-.007	.313	.149				
	p	.050	.947	.001	.128				
Perseverance	ρ	-.027	-.074	-.160					
	p	.781	.456	.102					
Sensation Seeking	ρ	-.134	-.153						
	p	.172	.119						
IQ	ρ	.293							
	p	.002							

Table SII. Normality tests on outcome variables (Kolmogorov-Smirnov test).

	D	df	p
outcome-devaluation test			
accuracy (%)	.274	105	<.001
slips-of-action test			
DSI	.178	105	<.001
baseline test			
DSI	.192	105	<.001
instrumental learning phase			
accuracy (%) block 1	.130	105	.004
accuracy (%) block 2	.229	105	<.001
accuracy (%) block 3	.259	105	<.001
accuracy (%) block 4	.292	105	<.001
accuracy (%) block 5	.372	105	<.001
accuracy (%) block 6	.329	105	<.001
accuracy (%) block 7	.432	105	<.001
accuracy (%) block 8	.441	105	<.001

DSI devaluation sensitivity score

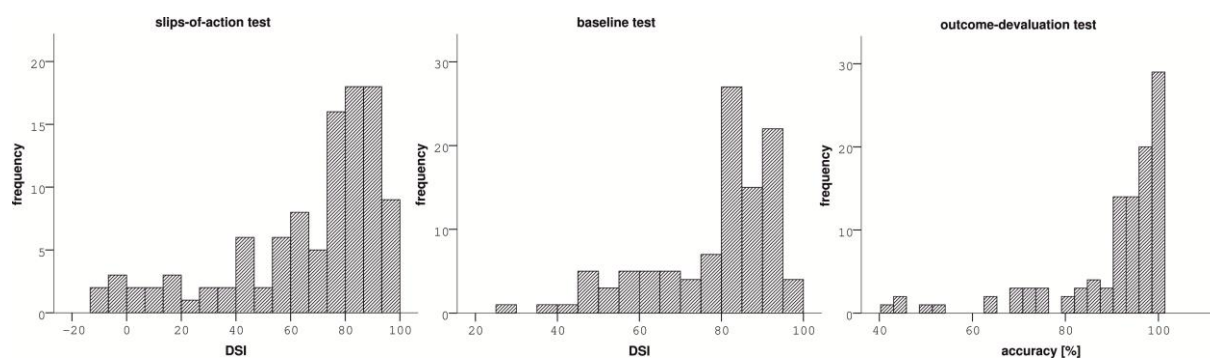


Figure SI. Distribution of measures of the slips-of-action, baseline, and outcome-devaluation tests. Abbreviations: DSI devaluation sensitivity index.

Table SIII. Reaction times (RT) in the slips-of-action, baseline, and outcome-devaluation tests (1st Quartile, Median, 2nd Quartile). Included are RT of responses for devalued and still-valuable outcomes (slips-of-action and baseline tests) and RT of responses on the outcome-devaluation test.

interquartile range	slips-of-action test		baseline test		outcome-devaluation test
	devalued (ms)	valuable (ms)	devalued (ms)	valuable (ms)	(ms)
1st Quartile	609.25	650.95	594.00	609.00	750.25
Median	672.00	698.32	656.00	649.00	867.50
2nd Quartile	736.50	736.86	742.00	695.00	1083.75

slips-of-action test: no responses for devalued outcomes n=4, **baseline test:** no responses for devalued stimuli n=5

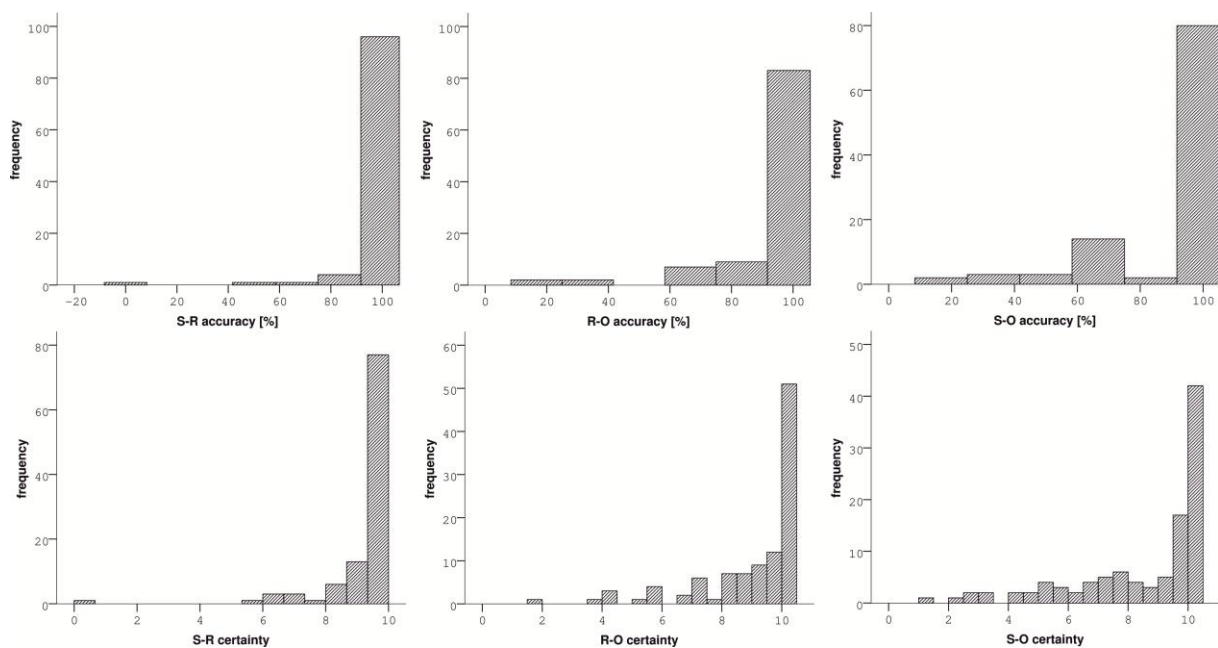


Figure SII. Distribution of accuracy [%] and certainty on S→R, R→O, and S→O associations as indicated in paper-and-pencil questionnaires on contingency knowledge.