

## SUPPLEMENTARY MATERIAL

### Section A

#### Age as a covariate in the regression model

As the participants in our study were of very broad age range, we have decided to examine age as a potential covariate in our analyses focused on delay discounting. This was done mainly because of the well-established link between age and some of the cognitive individual difference predictors used in our study, such as the fluid intelligence (e.g., Horn & Cattell, 1967). Indeed, there was a significant negative correlation between our participants age and cognitive ability,  $r(397) = -.11, p = .029$ , as well as delay discounting,  $r(394) = -.13, p = .008$ . None of the other cognitive individual difference predictors in our study were significantly associated with age. Although the relationships between age and cognitive ability and delay discounting were low, we have included age in the regression model in order to establish whether it can predict any additional variance in delay discounting above the cognitive individual difference predictors included in the regression in the main manuscript. To this end, we have entered all cognitive individual difference predictors in the first step of the regression and then included age in the model to see whether it predicts any additional variance in delay discounting. The results are shown in Table S1.

As can be seen from the table, inclusion of age in the model actually lead to 2% increase in explained variance in delay discounting. Not only did age itself show up as a significant predictor of delay discounting ( $\beta = -.15$ ), but after controlling for age in the model, cognitive ability became a significant predictor of delay discounting as well ( $\beta = -.11$ ). Both age and cognitive ability were negatively associated with the extent to which participants discounted future rewards. Thus, as was shown previously, older people may exhibit slightly less delay discounting (Reimers, Maylor, Stewart, & Chater, 2009).

Table S1 Summary of the regression analysis predicting the discounting rate ( $k$ )

	$b$ (SE)	$\beta$	$t$	$p$
<b>Step 1</b>				
Constant	-2.67 (0.33)		-8.09	< .001
Cognitive ability	-0.02 (0.01)	-.09	-1.52	.128
Cognitive reflection	-0.02 (0.02)	-.06	-0.96	.337
Scientific reasoning	-0.02 (0.02)	-.06	-0.94	.346
Objective numeracy	0.01 (0.03)	.02	0.31	.759
Subjective numeracy	0.03 (0.03)	.05	0.97	.335
Analytic thinking disposition	0.03 (0.05)	.04	0.72	.473
Intuitive thinking disposition	0.09 (0.05)	.08	1.66	.098
Bias susceptibility	<i>0.03 (0.01)</i>	.25	4.07	< .001
$R^2 = .123, F(8,385) = 7.89, p < .001$				
<b>Step 2</b>				
Constant	-2.36 (0.34)		-6.90	< .001
Cognitive ability	<i>-0.03 (0.01)</i>	-.11	-2.04	.042
Cognitive reflection	-0.02 (0.02)	-.05	-0.82	.414
Scientific reasoning	-0.01 (0.02)	-.04	-0.66	.512
Objective numeracy	0.01 (0.03)	.02	0.37	.715
Subjective numeracy	0.04 (0.03)	.07	1.31	.190
Analytic thinking disposition	0.03 (0.05)	.03	0.55	.583
Intuitive thinking disposition	0.07 (0.05)	.07	1.34	.180
Bias susceptibility	<i>0.03 (0.01)</i>	.27	4.33	< .001
Age	<i>-0.01 (0.00)</i>	-.15	-3.02	.003
$\Delta R^2 = .020, F(1,384) = 9.12, p = .003$				

*Note.* The table contains unstandardized ( $b$ ) and standardized regression coefficients ( $\beta$ ) with their respective  $t$ -ratio and significance.  $R^2$  and  $\Delta R^2$  denote adjusted  $r$ -square for the initial model and change in  $r$ -square at the 2<sup>nd</sup> step of the regression with appropriate change statistics. Significant regression coefficients ( $p < .05$ ) are presented in italics.

### Supplementary references

- Horn, J. L., & Cattell, R. B. (1967). Age differences in fluid and crystallized intelligence. *Acta Psychologica, 26*, 107–129. [https://doi.org/10.1016/0001-6918\(67\)90011-X](https://doi.org/10.1016/0001-6918(67)90011-X)
- Reimers, S., Maylor, E. A., Stewart, N., & Chater, N. (2009). Associations between a one-shot delay discounting measure and age, income, education and real-world impulsive behavior. *Personality and Individual Differences, 47*(8), 973–978. <https://doi.org/10.1016/j.paid.2009.07.026>