Online Appendix for
"Looming Large or Seeming Small?
Attitudes Towards Losses in a Representative Sample"
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A DOSE Procedure and Survey Implementation

A.1 DOSE Procedure

This subsection presents further details of the design choices for each of the two DOSE sequences in our online survey. We start by detailing the information criterion and error specification that we implement in both the DOSE sequences. We then explain the implementation of the question selection in our online survey, and specify the particular design choices made for each of the 10-question and 20-question sequences. For full details of the DOSE elicitation method, see Chapman et al. (2018).

Overview of DOSE procedure The DOSE procedure selects a personalized sequence of questions for each participant. Questions are selected sequentially, using a participant's previous answers to identify the most informative question at that point in time. In our implementation, DOSE selects each question to maximize the expected Kullback-Leibler (KL) divergence between the prior and possible posteriors associated with each answer. That is, the question that is picked at each point is the one with the highest expected information gain given the initial prior and previous answers.

Formally, consider a finite set of possible parameter vectors θ_k for $k = 1, ..., K$, where each $\theta_k = (\rho_k, \lambda_k, \mu_k)$ is a combination of possible values of the parameters of interest. Each θ_k has an associated probability p_k of being the correct parameters. In the first question, these probabilities are the priors chosen by the experimenter; they are then updated in each round according to the participant's answers. The expected Kullback-Leibler divergence between the prior and the posterior when asking question Q_j is:

$$KL(Q_j) = \sum_{k \leq K} \sum_{a \in A} \log \left(\frac{l_k(a; Q_j)}{\sum_{j \in \mathcal{K}} p_j l_j(a; Q_j)} \right) p_k l_k(a; Q_j) \tag{2}$$

where $a \in A$ are the possible answers to the question, and $l_k(a; Q_j)$ is the likelihood of answer a given θ_k—in our implementation this is determined by the logit function in (3). DOSE selects the question that maximizes $KL(Q)$, the participant answers it, model posteriors are updated, the question Q_j that now maximizes $KL(Q)$ (and has not already been asked) is selected.

Mistakes and Choice Consistency An important feature of DOSE is that it accounts for the possibility that the participant may make mistakes in their previous choices. In this paper, we model the mapping between utility and choices using a logit function—Chapman et al. (2018) show that the procedure is robust to misspecifying the error specification. Specifically, for any choice between options o_1 and o_2 with $V(o_1) > V(o_2)$:

$$\text{Prob}[o_1] = \frac{1}{1 + e^{-\mu_i (V(o_1) - V(o_2))}}. \tag{3}$$

In Specification (3), the probability of making a mistake is $1 - \text{Prob}[o_1]$, and so μ_i represents greater consistency in choices.

Survey Implementation: The design of YouGov's online platform precluded using DOSE to choose questions in real time and so, instead, simulated responses were used to map out all possible sets of binary choices in advance. That tree was then used to route participants through the survey. Mapping such a tree with a refined prior was infeasible given both computational constraints and the limitations of YouGov's interface (mapping such a tree over 20 questions would involve over 500,000 routes through the survey). As such, questions were selected using a coarser prior and then final individual-level estimates were obtained by performing the Bayesian updating procedure with a joint 100-point discretized uniform prior.[1]

10-question Sequence: The 10-question sequence was selected using the utility function in Specification 1. Two types of lottery were used. The first had a 50% chance of 0 points, and a 50% chance of winning a (varying) positive amount of points (of up to 10,000). The second had a 50% chance of winning an amount up to 10,000 points, and a 50% chance of a loss of up to 10,000 points. In the latter case, the sure amount was always 0 points.[2] The lottery always appeared first in both types of question

To account for the survey environment we restricted the question selection procedure in two ways. First, to focus the procedure on obtaining a precise estimate of ρ before moving onto estimates of λ, the first four questions in the module were restricted to be lotteries over gains. Second, to make it harder for participants to identify the adaptive nature (and hence attempt to manipulate) the procedure, the maximum prize was restricted to be no more than 7,000 points in each even numbered round.

See Figures E.23–E.25 for module instructions and example questions.

20-question Sequence: The 20-question sequence was selected using a power utility function allowing for differential curvature over gains and losses—see Specification (4) below. Three types of lottery were used. The first two types were the same as those in the 10-question sequence listed above—except that potential prizes ranged from a loss of 15,000 to a gain of 15,000. The third type of question, included to identify curvature over losses, offered a choice between losing a (varying) fixed amount points, or a lottery with a 50% chance of 0 points, and a 50% chance of losing up to 15,000 points. The sure amount always appeared first in all questions, reversing the order from the 10-question module.

In order to facilitate comparisons across the sample, the question selection procedure was restricted so that three questions were fixed for all participants. The first question of the sequence offered a choice between a gain of 5,900 points, or a lottery with a 50% chance of 0 points and a 50% chance of 15,000 points. The fourth question—reported in Figure 1—offered participants a fixed prize of 0 points or a lottery with a 50% chance of gaining 10,000 points, and a 50% chance of losing 12,000 points. No questions with possible losses were allowed before

[1] Specifically, the prior for question selection was constructed using the estimates for laboratory participants obtained by Sokol-Hessner et al. (2009) and Frydman et al. (2011): 0.2–1.7 for ρ (12 mass points), and 0–4.6 for λ (20 mass points).

[2] The set of potential questions allowed for gains ranging between 1,000 and 10,000 points in 500 point increments, and sure amounts and losses varying ranging from 500 points to 10,000 points in 100 point increments. Questions were excluded if one choice was first-order stochastically dominated for all values of the prior distribution. Questions were also selected as if the prize amounts were 3 times the actual amounts offered in the lottery to improve discrimination of the risk and loss aversion parameters.

this question. The twentieth question of the sequence offered a similar choice: a 50% chance of gaining 11,000 points, and a 50% chance of losing 13,000 points.[3]

See Figure 2 for the 20-question sequence instructions, and an example of a question involving a gain and a loss. Figure E.20 presents an example of a question involving only a gain, and Figure E.21 an example of a question involving only a loss.

A.2 Other Survey Measures

This subsection summarizes the definition of the other measures used in the paper.

MPLs Eliciting Certainty Equivalents The survey included four MPLs eliciting participants' certainty equivalent for a fixed lottery—see Figures E.28–Figures E.31. Two MPLs elicited the certainty equivalent for a 50/50 lottery between a loss and a gain, while two elicited the certainty equivalent for a 50/50 lottery including only gains. The specific lotteries offered were:

1. 50% chance of winning $5 and a 50% chance of losing $5
2. 50% chance of winning $4 and a 50% chance of losing $4
3. 50% chance of winning $0 and a 50% chance of winning $5
4. 50% chance of winning $1 and a 50% chance of winning $4

MPLs Eliciting Lottery Equivalents Two MPL offered participants a choice between a fixed prize of $0, and a 50/50 lottery with a variable prize—see Figures E.26–Figures E.27. Specifically, the lottery consisted of a fixed positive amount y ($5 or $4) and a varying negative amount c with equal probabilities. The MPL therefore elicited the participant's lottery equivalent for c such that the participant was indifferent between gaining y and losing c with equal probability, and getting zero for sure.

Cognitive Ability: We measure cognitive ability using a set of nine questions. Six questions from the International Cognitive Ability Resource (ICAR; Condon and Revelle, 2014) capture IQ: three are similar to Raven's Matrices, and the other three involved rotating a shape in space. The other three are taken from the Cognitive Reflection Test (CRT; Frederick, 2005): three arithmetically straightforward questions with an instinctive, but incorrect, answer.

[3]The set of potential questions was as follows. For questions with only gains, possible prizes varied between 700 and 14,700 points, in increments of 700. For questions with only losses: possible prizes varied between 100 and 14,800 points, in increments of 700 points. For questions with gains and losses the gain prizes varied between 300 and 15,000 points, in increments of 700 points; loss prizes varied between 300 and 15,000 points, in increments of 700 points. Questions were excluded if the highest maximum absolute value of the prize was less than 8,000 points, or if the lottery was not the optimal choice under any value of the parameters in the prior. This question set was chosen to provide sufficient flexibility for DOSE to elicit precise estimates, to ensure some variation in the questions respondents received, and computational constraints due to the need to simulate the question tree in advance.

Education: Education is measured on a six point scale, with categories including: No high school, graduated high school, some college, two-years of college, four-year college degree, and a postgraduate degree.

Income: Participants reported their income in sixteen categories, ranging from "Less than \$10,000" to "\$500,000 or more". 11% of participants chose not to state their income. We linearize this variable by taking the mid-points of each category (or use \$500,000 for the top category), and use random imputation to impute missing values of log income based on age, sex, education, and employment status. In robustness tests below we include the variable in quartiles and add a dummy variable capturing missing responses.

Sex: Sex was measured as a binary choice of "Male" or "Female".

Age: Participants were asked to state their birth year, which we convert into age. In robustness tests below we include the variable split into quartiles.

Marital Status: Participants reported their marital status in six categories: "Married", "Separated", "Divorced", "Widowed", "Never married", or "Domestic / civil partnership". We create a binary variable based on these responses.

Gambling Behavior: Gambling behavior was measured using a battery of questions adapted from Gonnerman and Lutz (2011) (see Figure E.32). Two principal components were extracted from this battery of measures—see Appendix D for scree plots.

Household Assets and Stock Investments: Participants were first asked to specify their financial assets, by answering: "the value of your bank accounts, brokerage accounts, retirement savings accounts, investment properties, etc., but NOT the value of the home(s) you live in or any private business you own." The following question then asked "What percentage of your investable financial assets is currently invested in stocks, either directly or through mutual funds?" These questions were taken from Choi and Robertson (2020).

For the analysis in Table 4, the value of household assets was linearized by taking the midpoint of each category (or \$1 in the bottom category, \$100,000 for the top category).

Household Shocks: Household shocks were measured using a battery of six binary questions adapted from Pew Research Center (2015, p4)—see Figure E.33 for an example. Specifically, participants were asked whether in the past 12 months,

1. In the past 12 months, has anyone in your household brought in less income than expected due to unemployment, a pay cut, or reduced hours?
2. In the past 12 months, has someone in your household suffered an illness or injury requiring a trip to the hospital?
3. In the past 12 months, has anyone in your household divorced, separated, or was widowed from a spouse or partner?

4. In the past 12 months, has anyone in your household needed a major repair or replacement to their car, truck, or SUV?
5. In the past 12 months, has the place you live in or any appliances needed major repair or replacement?
6. Has your household had some other large, unexpected expense in the past year? [If yes, add a text box with the question: Can you tell us a bit more about this expense?]

Two principal components were extracted from this battery of measures—see Appendix D for scree plots.

Attention Screeners: The survey included three questions designed to check a participant was paying attention. See Figures E.34–E.37 for question wording.

B Choice Data

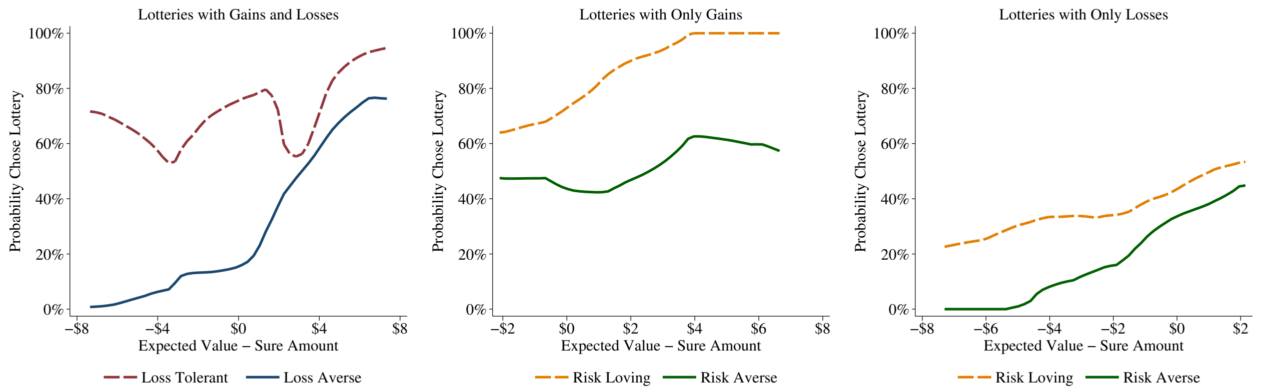
The analysis in the main text has primarily estimated loss aversion using parametric specifications. The parametric approach allows us to disentangle loss aversion from the curvature of the utility function, but could lead to concerns that the results are driven by our choice of utility function. In this Appendix we use the survey data to show that there is a clear pattern of choices underpinning our parametric estimates. First we demonstrate that the classification of loss tolerant by DOSE reflects participants accepting a number of negative-expected-value lotteries. The second subsection shows a similar pattern in the MPL choice data.

B.1 Choice Data From DOSE

The DOSE parameter estimates reflect clear patterns in choice, as shown in Figure B.1. In each panel we split participants according to their classification in the 20-question DOSE module. The x-axis is the difference between the expected value of a lottery and the sure amount in a given choice. The left-hand panel shows that loss-tolerant participants ($\lambda < 1$) are clearly more likely to choose lotteries with losses than those who are loss averse ($\lambda > 1$). Similar patterns exist for risk aversion over gains (middle panel) and losses (right hand panel): individuals classified as risk loving are more likely to choose gambles in the relevant domain at every expected value difference. For all six groups of participants, the probability of choosing the lottery generally increases with the difference between the expected value of the lottery and the sure amount. However, portions of the lines in each panel are flat, reflecting the fact that the questions participants receive are determined by their previous answers. For instance, in the left-hand panel, DOSE will only offer a question with expected value far below the sure amount to participants that have already revealed loss tolerance through prior choices of lotteries with large negative expected values. Selection into receiving questions with large expected value differences is thus not random.

Figure B.2 shows that our finding of widespread loss tolerance in the representative sample reflects a common tendency to accept negative-expected-value gambles. In both panels, we order participants according to the smallest expected value of a mixed lottery (offering both gains and losses) that they accepted in the 20-question (left-hand panel) and 10-question (right-hand

Figure B.1: A clear pattern of choices underpins the DOSE-elicited parameters.



Notes: The figure displays choices from the 20-question DOSE sequence using local mean regressions with Epanechnikov kernel and bandwidth 1. Loss Tolerant (Averse) refers to participants for who $\lambda < 1$ ($\lambda > 1$) according to the DOSE 20-question estimates. Similarly, Risk Averse (Loving) refers to participants for who $\rho < 1$ ($\rho > 1$) according to the DOSE 20-question estimates for lotteries with only gains, and $\rho > 1$ ($\rho < 1$) for lotteries with only losses.

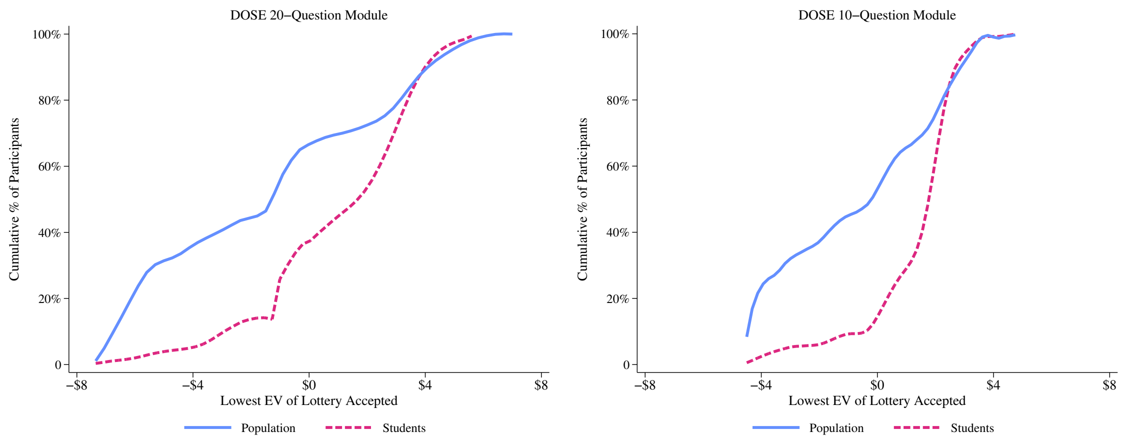
panel) DOSE modules. More than 64% of participants in the representative sample accepted at least one lottery with negative expected value in the 20-question module (left-hand panel) and 48% did so in the 10-question module (right-hand panel). These proportions are much higher than among students, of whom 35% and 12% accepted a negative-expected-value lottery in the respective modules.

Figure B.3 shows that the classification of participants as loss tolerant by DOSE reflects participants' willingness to accept lotteries with negative expected value, and is not an artefact of our parametric assumptions. Here, we investigate choices by examining the ratio between the possible gain (g) and the possible loss (l) for a mixed lottery accepted by participants (over a sure amount of $0). This ratio offers a simple measure of the loss aversion coefficient: with linear utility, a participant should accept a mixed lottery if $\frac{g}{l} \geq \lambda$.[4] The figure shows that the DOSE-elicited parameters capture such choices: more than three-quarters of participants with estimated $\lambda > 2$ (bottom-right panel) accepted only lotteries with $\frac{g}{l} > 2$, while almost all participants with estimated $\lambda \leq 0.5$ (top-left panel) accepted a lottery with $\frac{g}{l} \leq 0.5$. These results offer further evidence that the DOSE parameter estimates reflect a widespread willingness to accept negative-expected-value lotteries.

There are clear differences in choices according to cognitive ability, as shown in Figure B.4. Similarly to Figure B.1, each panel displays the likelihood of accepting a lottery for each category of question. Now we compare the choices of participants according to their level of cognitive ability. Low-cognitive-ability participants consistently accept lotteries with negative expected value (left-hand-panel). High-cognitive-ability participants, in contrast, choose such lotteries less frequently. When lotteries contain only gains (middle panel) low-cognitive-ability participants are less likely to accept lotteries where the expected value exceeds the sure amount than participants with high cognitive ability—consistent with the negative correlation between risk aversion and cognitive ability reported in Table 1.

[4] We can also construct individual-level loss-aversion measures based on the range of $\frac{g}{l}$ values accepted by participants—doing so leads to an estimate of 53% of participants as loss tolerant.

Figure B.2: There is greater willingness to accept negative-expected-value gambles among the general population than among students.



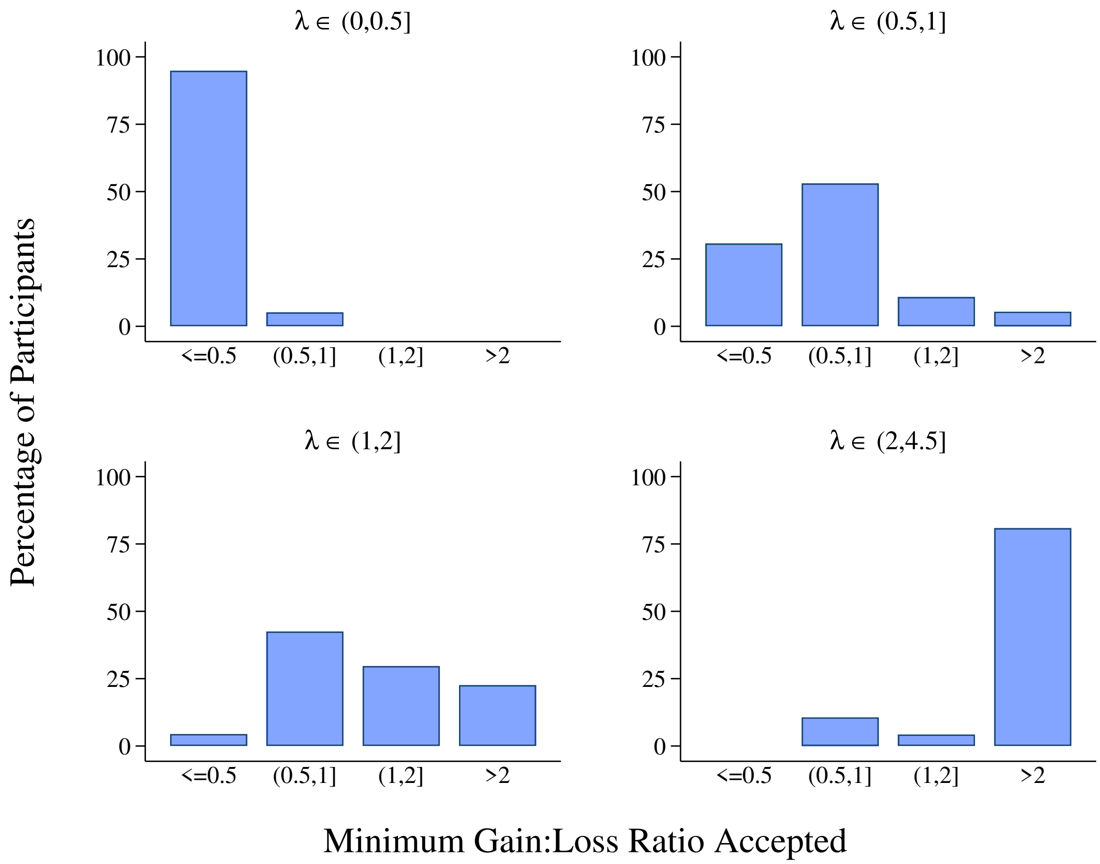
Notes: Each panel presents the cumulative density of participants, ranked according to the smallest expected value of a mixed lottery (i.e., offering both gains and losses) that they chose to accept. Densities are plotted using a local cubic polynomial, with a bandwidth of 0.5. The left-hand panel includes participants in the main survey sample, the right-hand panel includes participants in both the main and supplementary samples. Participants that never accepted a mixed lottery are excluded from the figure.

B.2 Choice Data from MPL Elicitations

Figure B.5 displays the choices made in the six MPL elicitations discussed in Section 5.1. The first two rows relate to the MPLs used to identify loss aversion, through eliciting lottery equivalents or certainty equivalents. The final row displays the two MPLs over only gains, which identify the curvature of the utility function. Choices in all six MPLs clump around salient rows, including at end-points of the distribution, and some choices are first-order stochastically dominated.

In the main text we use the MPL choice data to estimate Bayesian parameters. Alternatively, we can estimate loss aversion parameters using a double MPL method (Andersen et al., 2008; Andreoni and Sprenger, 2012), in which risk aversion is estimated separately by eliciting the certainty equivalent for a lottery over gains. This method is problematic because many participants select the (highly salient) top or bottom rows of the MPL leading to extreme parameter estimates (for example, $\lambda > 100$) or choices that are first-order stochastically dominated. Consequently, the method is unable to estimate λ for a significant proportion of the population: ranging from 10% to 42% of the sample across the four MPLs. However, we observe a high degree of loss tolerance among the subsample for which we obtain parameter estimates: between 39% and 62% of these participants are classified as loss tolerant.

Figure B.3: DOSE estimates of λ reflect participants' willingness to accept mixed lotteries.



Notes: Each panel of the figure represents different groups of participants, grouped according to the estimated λ elicited by the 20-question DOSE sequence. The bars in each panel represent the smallest gain-loss ratio in a mixed lottery accepted by the participant. Eight participants never accepted a mixed lottery and are excluded from the figure.

C Additional Results and Robustness

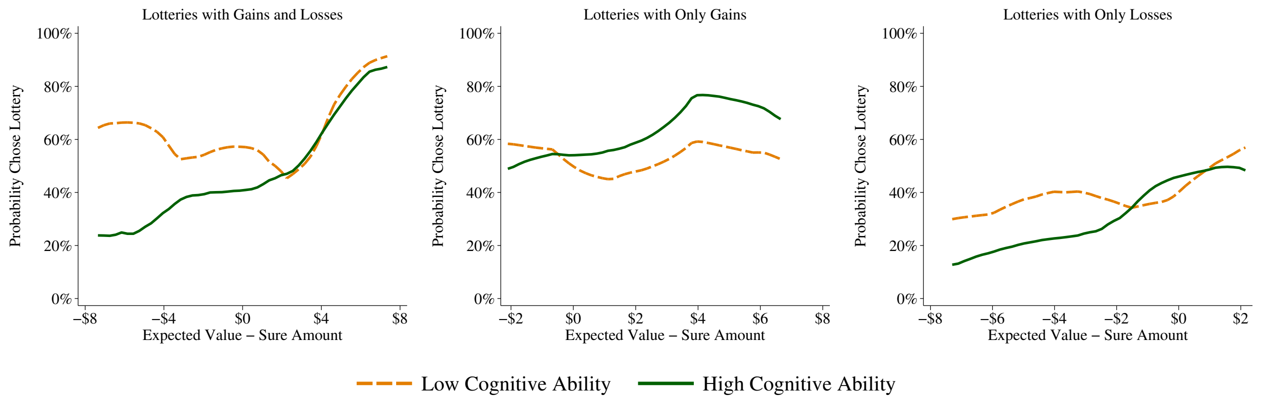
C.1 Alternative Utility Specifications

This Appendix presents the estimates, discussed in Section 5.2, obtained when allowing for the curvature of the utility function to differ between gains and losses, as suggested by Prospect Theory (Kahneman and Tversky, 1979). Specifically, we estimate the following unrestricted power utility function:

$$u(x, \rho_i^+, \rho_i^-, \lambda_i) = \begin{cases} u(x) = x^{\rho_i^+} & \text{for } x \geq 0 \\ u(x) = -\lambda_i(-x)^{\rho_i^-} & \text{for } x < 0 \end{cases} \quad (4)$$

We also re-estimate the loss aversion parameter using the exponential utility function suggested by Köbberling and Wakker (2005):

Figure B.4: Low-cognitive-ability participants make different choices to participants with high cognitive ability, supporting the correlations reported in Table 1.



Notes: The figure displays choices from the 20-question DOSE sequence using local mean regressions with Epanechnikov kernel and bandwidth 1. "Low" and "High" cognitive ability refer to the bottom and top terciles within the sample.

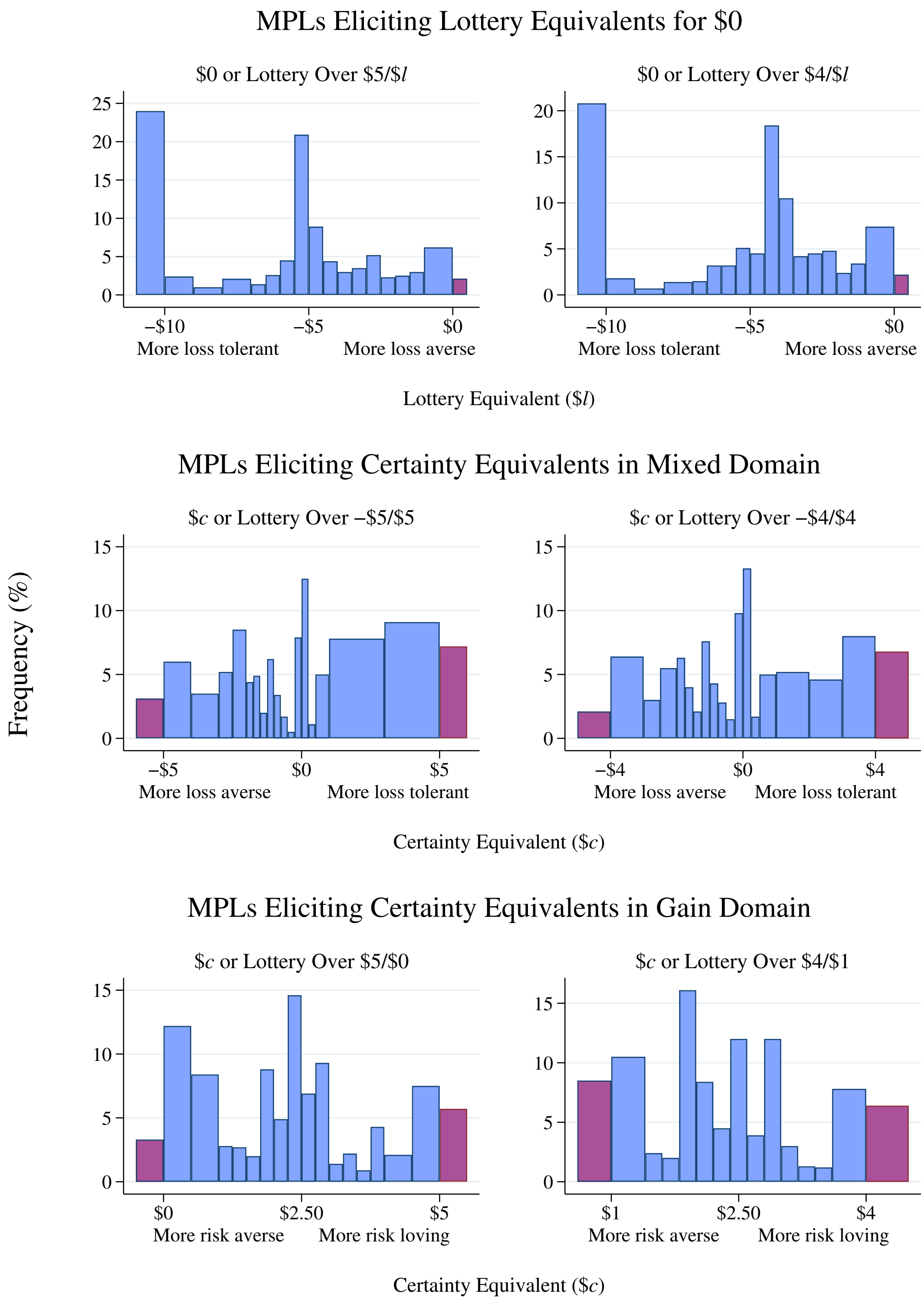
$$u(x, \gamma_i, \lambda_i) = \begin{cases} \frac{1-e^{-\gamma_i x}}{\gamma_i} & \text{for } x \geq 0 \\ \lambda_i \left(\frac{e^{\gamma_i x}-1}{\gamma_i} \right) & \text{for } x < 0 \end{cases} \tag{5}$$

where λ_i represents loss aversion (as in our main estimates) and γ_i captures risk aversion. This utility specification exhibits Constant Average Risk Aversion, and so we refer to the associated estimates as "CARA" in the following.

Our finding of widespread loss tolerance is robust to these alternative specifications as shown in Figure C.6. The left-hand panel presents results from re-estimating the data from the 20-question DOSE sequence using unrestricted CRRA utility curvature (specification (4) and CARA utility (specification 5). The right-hand panel presents the results from the 10-question DOSE sequence—the unrestricted CRRA model is not presented here, since the sequence did not include any questions involving only losses, and so we cannot identify utility curvature over losses. We can see that the CARA estimates are extremely similar to our main estimates. We observe more difference from our preferred estimates when allowing for differential curvature over gains and losses—more than two-thirds of the U.S. population are classified as loss tolerant by this specification.

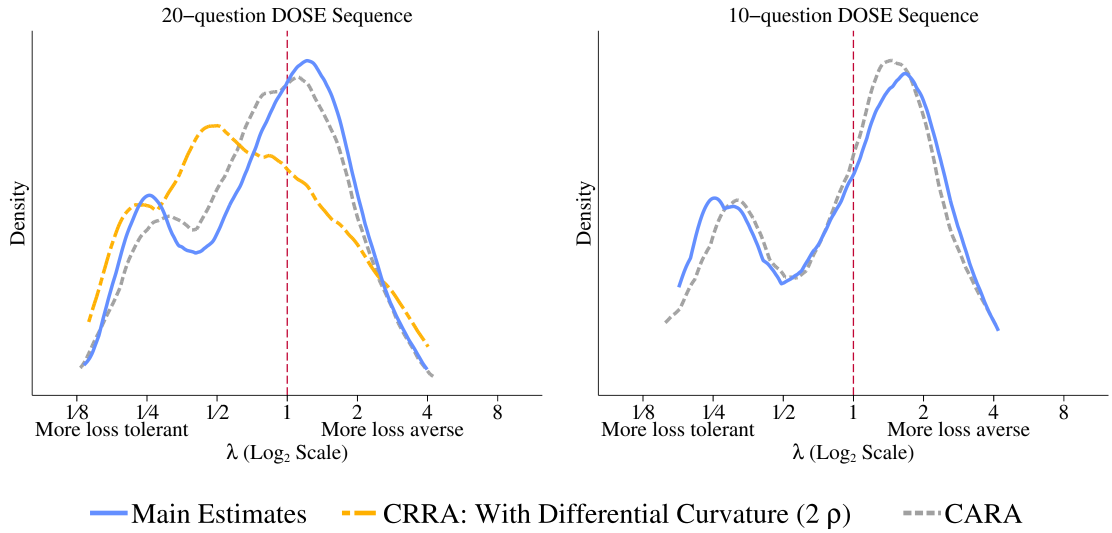
In Figure C.7 we investigate the estimates of risk aversion over gains and losses, obtained by estimating Specification 4. The left-hand panel shows that our risk aversion parameter in the main specification is closely correlated to the risk aversion over gains when allowing for differential curvature (r=0.59; s.e.=0.04). The restricted parameter is more weakly correlated with risk aversion over losses (r=-0.41; s.e.=0.04). The right-hand panel of the figure shows that the average risk aversion parameter is similar across the two domains, providing some support for our assumption that utility curvature is the same over gains and over losses. The mean difference in the two parameters is small, although statistically distinguishable from zero (-0.11; s.e.=0.03). These results are consistent with previous findings that utility over losses is closer to linearity (Booij et al., 2010). However, it is clear from the figure that there is considerable individual heterogeneity that is not captured by the average estimate.

Figure B.5: Choices in MPLs also show widespread loss tolerance.



Notes: All lotteries involved 50% probabilities of each outcome. Red bars at extremes of the MPL reflect choices that are first-order stochastically dominated.

Figure C.6: The finding of widespread loss tolerance is robust to alternative utility specifications ($N = 1,000$).



Notes: The figures display the kernel density of loss aversion (λ) parameters estimated from our main sample using various utility specifications, and plotted using an Epanechnikov kernel with bandwidth chosen by rule-of-thumb estimator. The "Main Estimates" refer to the specification in Equation (1), and classify 57% of participants as loss tolerant in the 20-question sequence, and 47% as loss tolerant in the 10-question sequence. "CRRA: With Differential Curvature" refers to the specification in Equation (4), and classifies 68% of participants as loss tolerant in the 20-question sequence (the 10-question sequence does not contain questions with only losses, and so we do not estimate this specification). "CARA" refers to the specification in Equation (5), and classifies 60% of participants as loss tolerant in the 20-question sequence, and 47% in the 10-question sequence.

C.2 Additional Correlations with Individual Characteristics

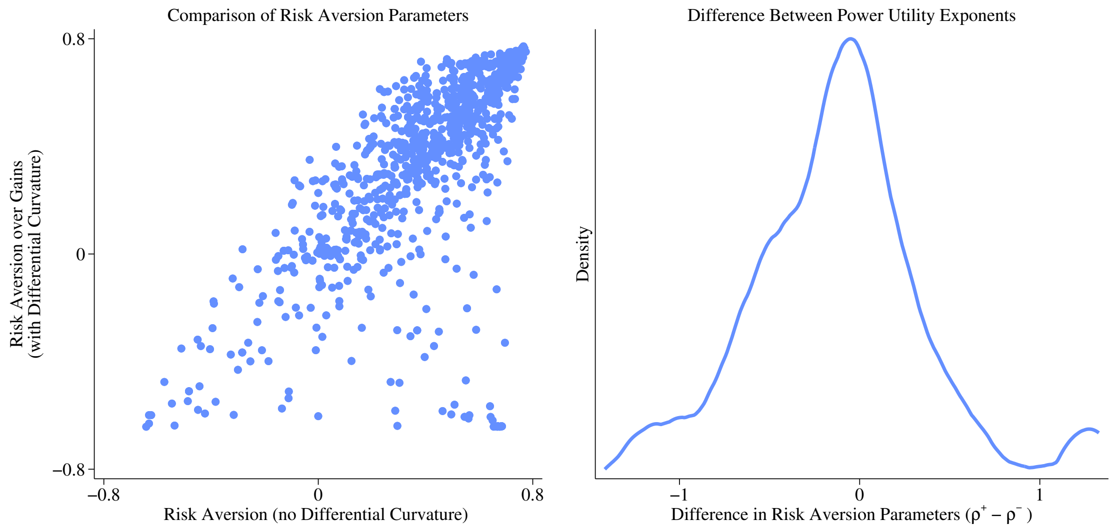
This appendix presents robustness tests relating to the correlations presented in Table 1. In addition, we present correlations relating to the choice consistency parameters and individual characteristics.

Table C.1 presents a fuller version of the univariate correlations contained in Table 1. The table separates the two components of our cognitive ability measure, and also includes variables relating to race and employment status. The final two columns include correlations with the choice consistency measure estimated by the two DOSE sequences. Perhaps surprisingly, higher-cognitive-ability participants make less consistent choices in DOSE, although the correlation is relatively small, and not as robust, the correlations with the loss and risk aversion parameters.

Table C.2 repeats the analysis, but using unweighted Spearman rank correlations. The pattern of correlations is similar to our main results—if anything, the relationship between individual characteristics and both loss and risk aversion is slightly stronger.

Table C.3 demonstrates that the multivariate regression results reported in Table 1 are robust to alternative variable definitions. The first and fourth column in this table replicate the results in the main text, but include the control variables as categorical, rather than continuous, variables. The remaining specifications include cognitive ability split into terciles, rather than as a continuous variable—first with continuous controls (second and fifth specifications) and

Figure C.7: Comparison of Risk Aversion over Gains and Losses



Notes: The left-hand panel compares the estimates of risk aversion over gains (y-axis) to the risk aversion parameter when imposing the same curvature over gains and losses (our main specification, x-axis). The right-hand panel displays the density of the difference in the risk aversion parameters over gains and losses when estimating Specification (4).

then the categorical controls (third and sixth specifications). There is strong evidence that higher cognitive ability is associated with being more loss averse, and less risk averse, in all specifications.

There is evidence of a strong correlation between cognitive ability and loss aversion even in the absence of parametric assumptions, as we can see in Table C.5. Here we use choices in our survey to estimate correlations with individual characteristics without any assumptions about the form of the utility function. The first two specifications use the lottery equivalents and certainty equivalents from the MPLs discussed in Section 5.1, without seeking to distinguish loss aversion from utility curvature. Similarly, the fourth specification uses the certainty equivalents from the two MPLs over gains to estimate risk aversion. The third and fifth specifications estimate risk preferences using the four fixed binary choices received by all survey participants. The two choices in specification 3 offer a sure amount of $0, or a lottery between a gain and similarly sized loss: i) $0 for sure, or a lottery between $10 and -$12, each with 50% probability, and ii) $0 for sure, or a lottery between $10 and -$12, each with 50% probability. The fifth specification uses two lotteries over only gains: i) a fixed amount of $5.90, or a lottery between $0 and $15, each with 50% probability, and ii) a fixed amount of $5.20, or a lottery between $0 and $10, each with 50% probability.

The pattern of correlations with these non-parametric measures is similar—but noisier—to those in Table 1. Cognitive ability is again strongly positively correlated with all three measures of loss aversion. We also observe a negative correlation between our risk aversion measure and cognitive ability, although in this case it is not statistically significant. The patterns for education, sex, and age, are also similar to those in previous tables but, again, not always statistically significant). The differences may be explained by the level of noise in the MPL measures given that—in contrast to the Bayesian estimates in Table C.4—here we are not accounting for choice inconsistency (see Chapman et al., 2018).

Table C.1: Additional correlations between DOSE-elicited parameters and individual characteristics.

	Loss Aversion (λ)		Risk Aversion (1-ρ)		Choice Consistency (μ)	
DOSE Sequence	20Q	10Q	20Q	10Q	20Q	10Q
Cognitive Ability	0.20***	0.21***	-0.30***	-0.11***	-0.13***	-0.06**
	(0.044)	(0.024)	(0.044)	(0.024)	(0.040)	(0.024)
IQ	0.16***	0.17***	-0.26***	-0.11***	-0.14***	-0.05**
	(0.045)	(0.027)	(0.047)	(0.025)	(0.039)	(0.025)
CRT	0.19***	0.19***	-0.26***	-0.09***	-0.05	-0.04
	(0.044)	(0.024)	(0.039)	(0.025)	(0.042)	(0.026)
Income (Log)	0.10**	0.09***	-0.03	-0.07**	-0.07	-0.00
	(0.050)	(0.027)	(0.066)	(0.032)	(0.064)	(0.035)
Income (Categories)	0.07	0.12***	-0.03	-0.10***	-0.05	-0.05
	(0.053)	(0.028)	(0.060)	(0.029)	(0.058)	(0.030)
Education	0.16***	0.12***	-0.12**	-0.04	-0.07	-0.03
	(0.045)	(0.026)	(0.051)	(0.028)	(0.051)	(0.027)
Male	-0.06	0.05*	-0.05	-0.11***	-0.01	-0.03
	(0.049)	(0.028)	(0.048)	(0.028)	(0.047)	(0.028)
Age	-0.05	-0.09***	0.14***	0.08***	0.09*	0.07**
	(0.054)	(0.028)	(0.053)	(0.030)	(0.053)	(0.030)
Married	0.01	0.03	0.07	0.02	0.07	0.04
	(0.050)	(0.028)	(0.049)	(0.028)	(0.048)	(0.028)
Employed	0.00	0.06	0.02	-0.02	0.00	0.02
	(0.074)	(0.047)	(0.080)	(0.046)	(0.083)	(0.050)
Not White	-0.14***	-0.14***	0.01	0.01	-0.03	0.03
	(0.048)	(0.027)	(0.054)	(0.030)	(0.054)	(0.031)

Notes: ***, **, * denote statistical significance at the 1%, 5%, and 10% level. Standard errors, in parenthesis, come from a standardized regression. Each cell corresponds to a single regression. $N = 1,000$ for the 20-question (20Q) DOSE sequence, and $N = 3,000$ for the 10-question (10Q) sequence. Due to non-response, when using “Income (Categories)” the number of observations is 889 for the 20-question sequence, and 2,629 for the 10-question sequence. When using “Employed” the number of observations is 511 for the 20-question sequence, and 1,634 for the 10-question sequence, as participants outside the labor force (for example, if they are retired) are excluded.

We observe a similar pattern of correlations between loss aversion and other individual characteristics regardless of the utility specification used, as we can see in Table C.7. Higher cognitive ability is consistently associated with being more loss averse. When we allow for differential curvature in the loss domain, we observe that high cognitive ability is also associated with more risk aversion over losses, in addition to being associated with a higher value of λ (representing a kink at the reference point). However, higher cognitive ability is associated with being less risk averse over gains with each of the utility specifications.

Table C.2: Spearman Rank unweighted correlations between DOSE-elicited parameters and individual characteristics.

	Loss Aversion (λ)		Risk Aversion (1-ρ)		Choice Consistency (μ)	
DOSE Sequence	20Q	10Q	20Q	10Q	20Q	10Q
Cognitive Ability	0.22***	0.26***	-0.32***	-0.19***	-0.04	-0.04***
	(0.031)	(0.018)	(0.030)	(0.018)	(0.032)	(0.018)
IQ	0.17***	0.21***	-0.26***	-0.16***	-0.07**	-0.04**
	(0.031)	(0.018)	(0.031)	(0.018)	(0.032)	(0.018)
CRT	0.20***	0.25***	-0.29***	-0.17***	0.02	-0.03
	(0.031)	(0.018)	(0.030)	(0.018)	(0.032)	(0.018)
Income (Log)	0.09***	0.12***	-0.14***	-0.12***	-0.01	-0.00
	(0.032)	(0.018)	(0.031)	(0.018)	(0.032)	(0.018)
Income (Categories)	0.08***	0.14***	-0.13***	-0.13***	0.02	-0.00
	(0.033)	(0.019)	(0.033)	(0.019)	(0.034)	(0.020)
Education	0.19***	0.15***	-0.18***	-0.08***	0.01	-0.02
	(0.031)	(0.018)	(0.031)	(0.018)	(0.032)	(0.018)
Male	-0.00	0.05***	-0.11***	-0.14***	0.04	-0.04**
	(0.032)	(0.018)	(0.031)	(0.018)	(0.032)	(0.018)
Age	-0.02	-0.05***	0.07**	0.05***	0.05	0.03
	(0.032)	(0.018)	(0.032)	(0.018)	(0.032)	(0.018)
Married	0.04	0.04**	-0.01	-0.01	0.04	0.02
	(0.032)	(0.018)	(0.032)	(0.018)	(0.032)	(0.018)
Employed	0.01	0.07***	-0.04	-0.06***	0.03	0.01
	(0.044)	(0.025)	(0.044)	(0.025)	(0.044)	(0.025)
Not White	-0.06*	-0.09***	0.03	0.04*	-0.10***	0.01
	(0.032)	(0.018)	(0.032)	(0.018)	(0.032)	(0.018)

Notes: ***, **, * denote statistical significance at the 1%, 5%, and 10% level. Each cell corresponds to the unweighted Spearman Rank correlation between the column and row variables. $N = 1,000$ for the 20-question (20Q) DOSE sequence, and $N = 3,000$ for the 10-question (10Q) sequence. Due to non-response, when using "Income (Categories)" the number of observations is 889 for the 20-question sequence, and 2,629 for the 10-question sequence. When using "Employed" the number of observations is 511 for the 20-question sequence, and 1,634 for the 10-question sequence, as participants outside the labor force (for example, if they are retired) are excluded.

Table C.3: Correlations between economic preferences and cognitive ability are robust to alternative definition of control variables ($N = 1,000$).

	Loss Aversion (λ)			Risk Aversion (1-ρ)		
Cognitive Ability Measure:						
Continuous	0.18***			-0.29***		
	(0.049)			(0.045)		
Categorical:						
Medium		0.33***	0.36***		-0.22**	-0.22**
		(0.117)	(0.119)		(0.110)	(0.110)
High		0.40***	0.42***		-0.64***	-0.64***
		(0.131)	(0.130)		(0.113)	(0.113)
Continuous Controls	N	Y	N	N	Y	N
Categorical Controls	Y	N	Y	Y	N	Y

Notes: ***, **, * denote statistical significance at the 1%, 5%, and 10% level. Loss aversion and risk aversion are standardized. "Medium" and "High" cognitive ability refer to the second and third terciles. "Continuous Controls" include the set of variables reported in Table 1. "Categorical Controls" include the same variables but in categorical form—including quartiles of income (and an indicator variable for missing values) and age, and six levels of education. Robust standard errors are displayed in parentheses.

Table C.4: Correlations between MPL-elicited parameters and individual characteristics ($N = 1,000$).

	Loss Aversion (λ)		Risk Aversion (1-ρ)		Choice Consistency (μ)	
Elicitation	LEs	CEs	LEs	CEs	LEs	CEs
Cognitive Ability	0.14***	0.15***	-0.12***	-0.16***	0.07	0.06
	(0.040)	(0.042)	(0.043)	(0.041)	(0.048)	(0.045)
IQ	0.13***	0.11***	-0.12***	-0.15***	0.02	0.04
	(0.042)	(0.044)	(0.046)	(0.045)	(0.052)	(0.045)
CRT	0.10**	0.15***	-0.07*	-0.11***	0.13***	0.07
	(0.045)	(0.042)	(0.041)	(0.041)	(0.041)	(0.046)
Income (Log)	0.10**	0.06	-0.12**	-0.16***	-0.00	0.02
	(0.049)	(0.048)	(0.053)	(0.056)	(0.051)	(0.056)
Income (Categories)	0.07	0.06	-0.12**	-0.16***	0.00	0.02
	(0.056)	(0.052)	(0.052)	(0.053)	(0.052)	(0.055)
Education	0.12***	0.08*	-0.04	-0.09*	0.10**	0.08
	(0.044)	(0.043)	(0.049)	(0.051)	(0.048)	(0.052)
Male	0.04	-0.05	-0.14***	-0.07	-0.11**	0.01
	(0.048)	(0.046)	(0.047)	(0.049)	(0.047)	(0.049)
Age	0.04	-0.14***	0.11**	0.04	0.05	-0.05
	(0.043)	(0.050)	(0.054)	(0.056)	(0.054)	(0.053)
Married	0.03	-0.01	0.07	0.03	0.08*	-0.02
	(0.047)	(0.047)	(0.048)	(0.050)	(0.047)	(0.049)
Employed	0.10*	-0.03	-0.06	-0.12	0.11	0.09
	(0.055)	(0.069)	(0.080)	(0.072)	(0.074)	(0.066)
Not White	-0.08	-0.13***	0.03	0.11**	-0.10**	0.00
	(0.050)	(0.047)	(0.051)	(0.053)	(0.050)	(0.053)

Notes: ***, **, * denote statistical significance at the 1%, 5%, and 10% level. The table displays correlations between individual characteristics and the MPL-elicited parameters discussed in Section 5.1. "LEs" refers to the two MPLs eliciting lottery equivalents, and "CEs" to the two MPLs eliciting certainty quivalents. Robust standard errors, in parentheses, come from a standardized regression. Each cell corresponds to a single regression. Due to non-response, when using "Income (Categories)" the number of observations is 889. When using "Employed" the number of observations is 511 for the 20-question sequence, and 1,634 for the 10-question sequence, as participants outside the labor force (for example, if they are retired) are excluded.

Table C.5: Correlations between non-parametric preference measures and individual characteristics ($N = 1,000$).

	Loss Aversion (λ)			Risk Aversion (1-ρ)	
Elicitation	MPL LEs	MPL CEs	Binary Choices	MPLs CEs	Binary Choices
Cognitive Ability	0.22***	0.14***	0.23***	-0.02	-0.04
	(0.044)	(0.042)	(0.046)	(0.047)	(0.048)
IQ	0.21***	0.11***	0.18***	-0.02	-0.04
	(0.041)	(0.047)	(0.050)	(0.049)	(0.048)
CRT	0.15***	0.13***	0.23***	0.01	-0.02
	(0.048)	(0.038)	(0.044)	(0.040)	(0.050)
Income (Log)	0.15***	0.04	0.15***	-0.10*	0.01
	(0.052)	(0.050)	(0.049)	(0.056)	(0.058)
Income (Categories)	0.13***	0.04	0.13***	-0.07	0.01
	(0.052)	(0.054)	(0.051)	(0.053)	(0.054)
Education	0.15***	0.09**	0.20***	0.04	0.00
	(0.047)	(0.044)	(0.046)	(0.052)	(0.050)
Male	0.04	-0.01	-0.00	-0.15***	-0.10**
	(0.047)	(0.047)	(0.049)	(0.048)	(0.049)
Age	-0.04	-0.08*	-0.03	0.08	0.13**
	(0.048)	(0.048)	(0.055)	(0.054)	(0.058)
Married	0.06	0.02	0.03	0.09*	0.05
	(0.047)	(0.047)	(0.049)	(0.049)	(0.049)
Employed	0.12*	-0.07	0.08	-0.01	0.08
	(0.071)	(0.068)	(0.078)	(0.082)	(0.073)
Not White	-0.11**	-0.11**	-0.08	-0.05	-0.08
	(0.051)	(0.051)	(0.052)	(0.056)	(0.052)

Notes: ***, **, * denote statistical significance at the 1%, 5%, and 10% level. The table displays correlations between individual characteristics and non-parametric measures of each preference. "MPL LEs" is the average of two lottery equivalents for a sure amount of $0. "MPL CEs" is the average of two certainty equivalents for a lottery between a possible loss and possible gain. "Binary choices" involved choices between a lottery and a sure amount. See text for further details. Robust standard errors, in parentheses, come from a standardized regression. Each cell corresponds to a single regression. Due to non-response, when using "Income (Categories)" the number of observations is 889. When using "Employed" the number of observations is 511 for the 20-question sequence, and 1,634 for the 10-question sequence, as participants outside the labor force (for example, if they are retired) are excluded.

Table C.6: Correlations between individual characteristics and economic preferences are robust to checks for fatigue and inattention.

	Loss Aversion (λ):					Risk Aversion (1-ρ):				
Subgroup	Below Median Resp Time.	Above Median Resp. Time	Passed Attention Checks	DOSE Early in Survey	DOSE Late in Survey	Below Median Resp Time.	Above Median Resp. Time	Passed Attention Checks	DOSE Early in Survey	DOSE Late in Survey
Cognitive Ability	0.18***	0.22***	0.16***	0.20***	0.19***	-0.32***	-0.28***	-0.29***	-0.27***	-0.33***
	(0.068)	(0.056)	(0.045)	(0.063)	(0.062)	(0.060)	(0.064)	(0.046)	(0.064)	(0.062)
Income (Log)	0.15***	0.05	0.10*	-0.04	0.25***	-0.03	-0.03	-0.08	0.03	-0.09
	(0.060)	(0.075)	(0.056)	(0.076)	(0.054)	(0.091)	(0.095)	(0.070)	(0.090)	(0.095)
Education	0.12*	0.19***	0.12***	0.07	0.23***	-0.11*	-0.14*	-0.12**	-0.13*	-0.11
	(0.066)	(0.060)	(0.048)	(0.062)	(0.062)	(0.064)	(0.075)	(0.054)	(0.073)	(0.072)
Male	-0.11	-0.01	-0.07	0.03	-0.13**	-0.03	-0.08	-0.07	-0.02	-0.08
	(0.066)	(0.071)	(0.052)	(0.073)	(0.065)	(0.066)	(0.069)	(0.049)	(0.069)	(0.066)
Age	-0.16**	0.05	-0.12**	-0.02	-0.09	0.10	0.20**	0.22***	0.12	0.17***
	(0.070)	(0.077)	(0.058)	(0.076)	(0.075)	(0.063)	(0.089)	(0.052)	(0.082)	(0.069)
Married	-0.03	0.06	0.01	-0.01	0.03	0.12*	0.03	0.07	0.05	0.09
	(0.067)	(0.075)	(0.054)	(0.073)	(0.068)	(0.065)	(0.073)	(0.051)	(0.070)	(0.069)
N	489	511	896	487	513	489	511	896	487	513

Notes: ***, **, * denote statistical significance at the 1%, 5%, and 10% level. The table displays univariate correlations between each economic preference (in columns) and other individual characteristics (in rows)—as in columns (1) and (3) of Table 1 for various subgroups. "Below" and "Above" Median Response Time refer to response time on the entire survey. "Passed attention checks" includes participants passing all three attention checks on the survey. "DOSE Early" and "DOSE Late" refer to the position of the 20-question DOSE sequence in the survey. Robust standard errors, in parentheses, come from a standardized regression.

Table C.7: Correlations between individual characteristics and economic preferences are robust to alternative utility specifications.

	DOSE-Elicited Preference Parameter										
	Loss Aversion:						Risk Aversion:				
Utility Specification	CRRA (1ρ)	CARA	CRRA (2ρ)	CRRA (1ρ)	CARA	CRRA (2ρ)	CRRA (1ρ)	CARA	CRRA (2ρ)	CRRA (1ρ)	CARA
Parameter	λ	λ	λ	λ	λ	$1-\rho^{-}$	$1-\rho$	γ	$1-\rho^{+}$	$1-\rho$	γ
DOSE Sequence	20Q	20Q	20Q	10Q	10Q	20Q	20Q	20Q	20Q	10Q	10Q
Cognitive Ability	0.20***	0.19***	0.20***	0.21***	0.20***	0.26***	-0.30***	-0.30***	-0.12**	-0.11***	-0.15***
	(0.044)	(0.044)	(0.038)	(0.024)	(0.024)	(0.040)	(0.044)	(0.043)	(0.051)	(0.024)	(0.025)
Income (Log)	0.10**	0.09*	0.09*	0.09***	0.08***	0.04	-0.03	-0.07	0.03	-0.07**	-0.10***
	(0.050)	(0.049)	(0.047)	(0.027)	(0.027)	(0.054)	(0.066)	(0.059)	(0.061)	(0.032)	(0.031)
Education	0.16***	0.15***	0.13***	0.12***	0.12***	0.11***	-0.12**	-0.15***	-0.03	-0.04	-0.06**
	(0.045)	(0.043)	(0.044)	(0.026)	(0.026)	(0.047)	(0.051)	(0.049)	(0.056)	(0.028)	(0.028)
Male	-0.06	-0.05	0.06	0.05*	0.04	-0.09*	-0.05	-0.06	-0.13***	-0.11***	-0.11***
	(0.049)	(0.048)	(0.045)	(0.028)	(0.027)	(0.047)	(0.048)	(0.048)	(0.051)	(0.028)	(0.027)
Age	-0.05	-0.04	0.05	-0.09***	-0.08***	-0.12**	0.14***	0.12**	0.11*	0.08***	0.07***
	(0.054)	(0.052)	(0.048)	(0.028)	(0.028)	(0.052)	(0.053)	(0.052)	(0.058)	(0.030)	(0.029)
Married	0.01	0.02	0.06	0.03	0.03	-0.05	0.07	0.03	0.07	0.02	0.01
	(0.050)	(0.049)	(0.045)	(0.028)	(0.027)	(0.049)	(0.049)	(0.049)	(0.051)	(0.028)	(0.027)

Notes: ***, **, * denote statistical significance at the 1%, 5%, and 10% level. The table displays univariate correlations between each economic preference (in columns) and other individual characteristics (in rows)—as in columns (1) and (3) of Table 1. $N = 1,000$ for the 20-question (20Q) DOSE sequence, and $N = 3,000$ for the 10-question (10Q) sequence. Robust standard errors, in parentheses, come from a standardized regression.

Table C.8: The relationship between loss aversion and gambling is robust to using alternative definition of control variables ($N = 1{,}000$).

	Non-Casual Gambling			Casual Gambling		
Loss Aversion (λ)	-0.11**	-0.12**	-0.11**	-0.10**	-0.11***	-0.09**
	(0.050)	(0.049)	(0.047)	(0.048)	(0.041)	(0.042)
Risk Aversion (1 - ρ)	0.02	0.07	0.04	0.01	0.02	-0.01
	(0.050)	(0.050)	(0.047)	(0.053)	(0.048)	(0.048)
Cognitive Ability:						
Medium	0.08		-0.03	-0.12		-0.13
	(0.131)		(0.114)	(0.113)		(0.100)
High	-0.13		-0.31***	-0.33***		-0.37***
	(0.098)		(0.115)	(0.117)		(0.105)
Control Variables	N	Y	Y	N	Y	Y

Notes: ***, **, * denote statistical significance at the 1%, 5%, and 10% level. The dependent variables, loss aversion, and risk aversion are standardized. "Medium" and "High" cognitive ability refer to the second and third terciles. "Control Variables" include the set of variables reported in Table 3, but in categorical form—including quartiles of income (and an indicator variable for missing values) and age, and six levels of education. Robust standard errors are displayed in parentheses.

Table C.9: No evidence of a relationship between risk aversion and gambling when excluding loss aversion ($N = 1{,}000$).

	Non-Casual Gambling			Casual Gambling		
Risk Aversion (1 - ρ)	0.05	0.03	0.05	0.07	0.02	-0.02
	(0.052)	(0.051)	(0.051)	(0.050)	(0.051)	(0.044)
Cognitive Ability		-0.07	-0.15***		-0.15***	-0.16***
		(0.045)	(0.052)		(0.046)	(0.044)
Education			0.02			-0.06
			(0.050)			(0.048)
Income (Log)			0.11*			0.02
			(0.062)			(0.051)
Age			-0.20***			0.22***
			(0.066)			(0.050)
Male			0.47***			0.19**
			(0.101)			(0.088)
Married			-0.17			0.01
			(0.108)			(0.089)
Owns Home			0.21*			0.23**
			(0.119)			(0.094)

Notes: ***, **, * denote statistical significance at the 1%, 5%, and 10% level. All continuous variables are standardized. Robust standard errors are displayed in parentheses.

C.3 Additional Regressions with Real World Behaviors

Table C.10: The relationships between loss aversion and financial outcomes are similar when using alternative definition of control variables ($N = 1{,}000$).

	Financial Shocks		Personal Shocks		Financial Assets (Log)	
Loss Aversion (λ)	-0.13***	-0.13***	-0.02	-0.01	0.11**	0.08**
	(0.045)	(0.042)	(0.052)	(0.046)	(0.048)	(0.038)
Risk Aversion (1-ρ)	-0.07	-0.04	0.04	0.06	0.10	0.05
	(0.050)	(0.048)	(0.052)	(0.053)	(0.067)	(0.046)
Cognitive Ability:						
Medium	0.08	0.02	0.09	0.12	0.30***	0.15*
	(0.117)	(0.103)	(0.127)	(0.124)	(0.105)	(0.084)
High	0.15	0.10	0.01	0.08	0.41***	0.13
	(0.112)	(0.104)	(0.108)	(0.125)	(0.120)	(0.095)
Control Variables	N	Y	N	Y	N	Y

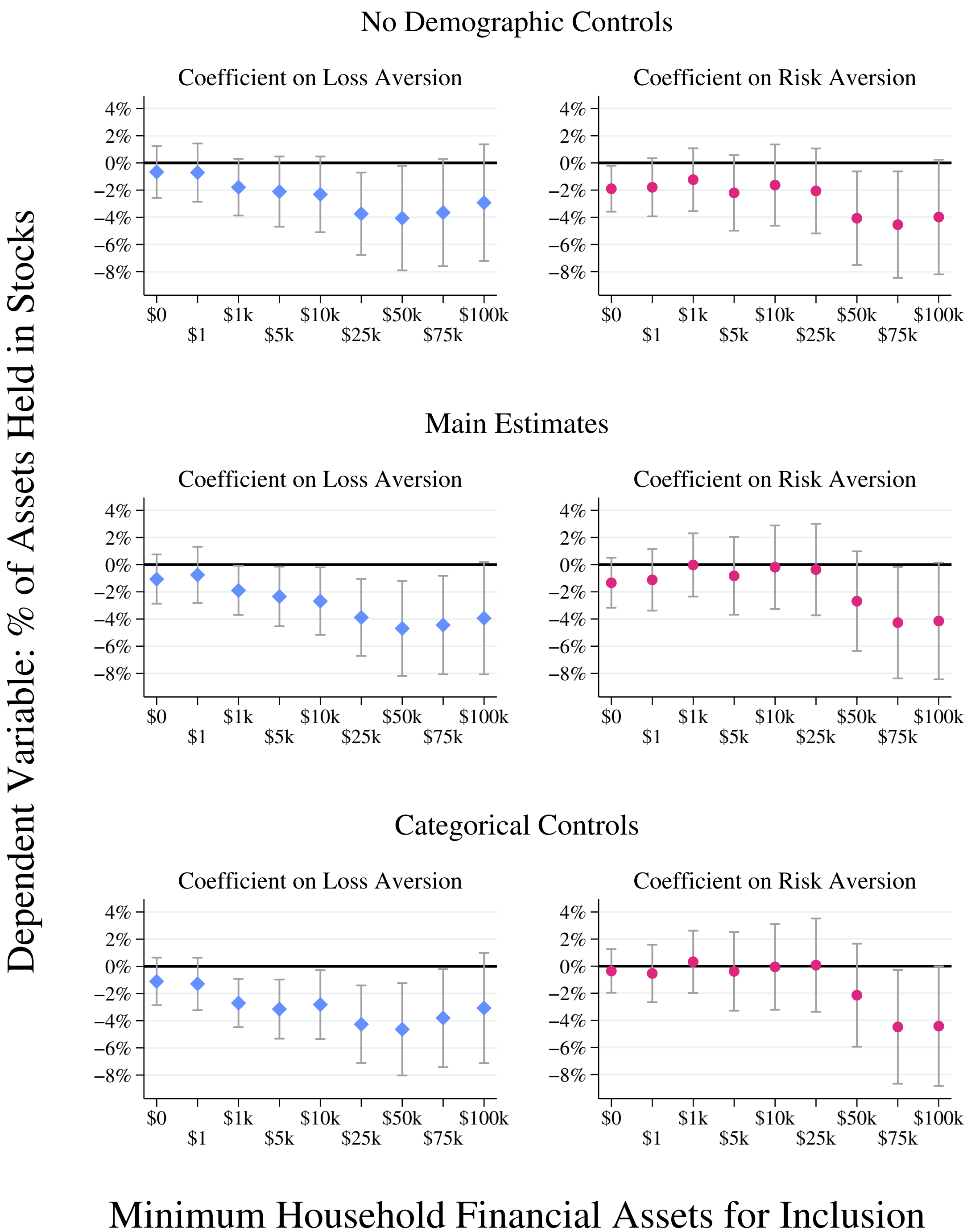
Notes: ***, **, * denote statistical significance at the 1%, 5%, and 10% level. The dependent variables, loss aversion, and risk aversion are standardized. "Medium" and "High" cognitive ability refer to the second and third terciles. "Control Variables" include the set of variables reported in Table 4, but in categorical form—including quartiles of income (and an indicator variable for missing values) and age, and six levels of education. Robust standard errors are displayed in parentheses.

Table C.11: No evidence of a relationship between risk aversion and either household shocks or financial assets when excluding loss aversion ($N = 1{,}000$).

	Financial Shocks		Personal Shocks		Financial Assets (Log)	
Risk Aversion (1-ρ)	-0.07	-0.02	0.04	0.05	0.03	0.05
	(0.053)	(0.050)	(0.056)	(0.051)	(0.072)	(0.042)
Cognitive Ability		0.06		0.01		0.07*
		(0.045)		(0.046)		(0.040)
Education		0.05		-0.09*		0.09**
		(0.050)		(0.052)		(0.039)
Income (Log)		-0.14**		0.13*		0.41***
		(0.064)		(0.068)		(0.055)
Age		-0.16***		-0.01		0.08*
		(0.053)		(0.058)		(0.046)
Male		0.14		0.06		-0.06
		(0.092)		(0.103)		(0.075)
Married		0.23**		-0.16		-0.01
		(0.098)		(0.113)		(0.091)
Owns Home		-0.16		-0.35**		0.35***
		(0.103)		(0.138)		(0.092)

Notes: ***, **, * denote statistical significance at the 1%, 5%, and 10% level. All continuous variables are standardized. Robust standard errors are displayed in parentheses.

Figure C.8: Relationship between stock investments and economic preferences is robust to alternative definition of control variables ($N = 1,000$).



Notes: The figure displays the results from estimating the regressions reported in Figure 8 and Table C.12, with alternative sets of control variables. Error bars represent 90% confidence intervals. "No demographic controls" indicates that the only control is log financial assets. "Main estimates" includes the control variables listed in Table C.12. "Categorical controls" includes the same set of variables, but in categorical form—including tercile of cognitive ability, quartiles of income (and an indicator variable for missing values) and age, and six levels of education.

Table C.12: Full Results of Regressions Reported in Figure 8

	DV=% Household Financial Assets in Stock Market								
Household Assets:	$\geq$ \$0	$\geq$ \$1	$\geq$ \$1k	$\geq$ \$5k	$\geq$ \$10k	$\geq$ \$25k	$\geq$ \$50k	$\geq$ \$75k	$\geq$ \$100k
Loss Aversion (λ)	-1.06	-0.76	-1.90*	-2.34*	-2.68*	-3.89**	-4.69**	-4.44**	-3.94
	(1.103)	(1.260)	(1.100)	(1.332)	(1.510)	(1.723)	(2.127)	(2.202)	(2.511)
Risk Aversion ($1-\rho$)	-1.33	-1.12	-0.02	-0.82	-0.19	-0.36	-2.69	-4.27*	-4.15
	(1.120)	(1.374)	(1.416)	(1.741)	(1.866)	(2.045)	(2.230)	(2.494)	(2.609)
Financial Assets (Log)	8.92***	23.32***	32.29***	40.39***	57.18***	78.54***	33.37	269.53	
	(0.881)	(2.369)	(3.623)	(5.352)	(8.283)	(17.706)	(35.508)	(164.259)	
Cognitive Ability	1.03	0.23	1.11	1.39	1.30	1.45	0.96	1.04	0.54
	(1.181)	(1.293)	(1.249)	(1.440)	(1.576)	(1.746)	(1.908)	(2.063)	(2.259)
Education	5.20***	5.06***	5.59***	6.34***	5.89***	5.20**	6.92***	6.24**	6.76**
	(1.233)	(1.314)	(1.425)	(1.618)	(1.788)	(2.167)	(2.487)	(2.777)	(3.015)
Income (Log)	3.74***	3.06**	3.66**	3.77*	4.28*	4.20*	2.43	0.32	1.01
	(1.307)	(1.455)	(1.714)	(2.166)	(2.297)	(2.509)	(2.491)	(3.485)	(3.564)
Male	4.53**	4.56**	3.92*	4.56*	3.19	2.01	1.63	-1.36	-1.54
	(2.044)	(2.281)	(2.340)	(2.698)	(2.978)	(3.317)	(3.729)	(4.142)	(4.361)
Age	3.17***	2.82**	2.18	2.22	3.03**	3.72**	4.82**	5.36**	6.48**
	(1.085)	(1.235)	(1.345)	(1.497)	(1.529)	(1.744)	(2.231)	(2.710)	(2.832)
Married	0.50	-1.17	-0.68	-1.86	-2.97	-3.19	0.14	4.50	3.04
	(2.180)	(2.390)	(2.596)	(3.001)	(3.424)	(3.971)	(4.431)	(5.649)	(6.261)
Owns Home	5.97**	3.92	3.83	4.61	0.43	-3.08	-0.86	-3.89	-5.83
	(2.364)	(2.581)	(2.902)	(3.462)	(3.921)	(4.936)	(5.898)	(6.785)	(7.379)
Observations	1,000	902	792	672	593	497	410	354	317

Notes: ***, **, * denote statistical significance at the 1%, 5%, and 10% level. All continuous variables are standardized. Robust standard errors are displayed in parentheses. As total financial assets is categorical, this variable contains only one value in the right-most column, hence there is no regression coefficient on that variable in that column.

Table C.13: Relationship between risk aversion and stock ownership is similar when excluding loss aversion.

	DV=% Household Financial Assets in Stock Market								
Household Assets:	≥ \$0	≥ \$1	≥ \$1k	≥ \$5k	≥ \$10k	≥ \$25k	≥ \$50k	≥ \$75k	≥ \$100k
Risk Aversion (1-ρ)	-1.22	-1.00	0.27	-0.59	-0.01	-0.25	-2.71	-4.64*	-4.35
	(1.128)	(1.379)	(1.373)	(1.727)	(1.878)	(2.098)	(2.345)	(2.618)	(2.727)
Financial Assets (Log)	8.81***	23.25***	31.98***	39.57***	55.44***	75.95***	23.51	257.01	
	(0.891)	(2.364)	(3.689)	(5.526)	(8.366)	(17.957)	(36.656)	(175.535)	
Cognitive Ability	0.88	0.11	0.78	0.99	0.89	1.04	0.45	0.44	0.03
	(1.147)	(1.244)	(1.269)	(1.478)	(1.629)	(1.830)	(2.014)	(2.145)	(2.350)
Education	5.11***	5.01***	5.48***	6.19***	5.64***	4.84**	6.39**	5.66**	6.15**
	(1.238)	(1.315)	(1.440)	(1.643)	(1.813)	(2.232)	(2.581)	(2.849)	(3.058)
Income (Log)	3.73***	3.10**	3.78**	3.97*	4.48*	4.71*	3.19	0.65	1.31
	(1.315)	(1.458)	(1.719)	(2.169)	(2.309)	(2.504)	(2.543)	(3.514)	(3.585)
Male	4.73**	4.68**	4.25*	4.90*	3.62	2.55	1.86	-1.60	-2.00
	(2.037)	(2.270)	(2.367)	(2.729)	(3.022)	(3.418)	(3.832)	(4.187)	(4.335)
Age	3.22***	2.89**	2.30*	2.34	3.27**	3.95**	4.71**	5.45**	6.57**
	(1.105)	(1.253)	(1.370)	(1.536)	(1.570)	(1.809)	(2.289)	(2.744)	(2.874)
Married	0.55	-1.11	-0.48	-1.52	-2.68	-3.08	-0.29	4.76	2.75
	(2.197)	(2.404)	(2.607)	(3.018)	(3.455)	(4.080)	(4.651)	(5.731)	(6.209)
Owns Home	5.94**	3.84	3.77	4.56	0.67	-2.95	0.22	-3.55	-5.13
	(2.385)	(2.594)	(2.939)	(3.512)	(3.977)	(5.088)	(6.232)	(7.048)	(7.742)
Observations	1,000	902	792	672	593	497	410	354	317

Notes: ***, **, * denote statistical significance at the 1%, 5%, and 10% level. All continuous variables are standardized. Robust standard errors are displayed in parentheses. As total financial assets is categorical, this variable contains only one value in the right-most column, hence there is no regression coefficient on that variable in that column.

Table C.14: Performance of reference-dependent models in 10-question DOSE sequence.

	All Participants		Loss-Tolerant Subgroup		
Reference Point	% Improve. over Chance	% with Improved Fit	% Improve. over Chance	% with Improved Fit	% Loss Tolerant
Preferred—$0	83%	–	83%	–	47%
Endowment	7%	0%	0%	0%	–
EV of Lottery	28%	8%	26%	11%	58%
Sure Option	44%	13%	39%	15%	41%
Stochastic	29%	6%	29%	10%	49%
Choice	30%	7%	34%	10%	49%

Notes: Loss-Tolerant Subgroup is the group of participants our preferred model classifies as loss tolerant. % Improvement over chance is equal to 2∗(the percent of choices fit − 50%). % Participants Improved Fit is the percent of participants for whom the model in that row fits better than our preferred model.

C.4 Additional Results from Alternative Reference Point Models

This Appendix presents additional results from the tests of models with alternative reference points reported in Section 5.3. First, in we present more detailed results for the 10-question (Table C.14) and 20-question sequences (Table C.15). Each table reports the percentage improvement on chance from each model, and also separates results for those individuals classified as loss tolerant in our main model. As we can see, the results for this sub-group are very similar, providing further evidence that loss tolerance is not explained by individuals using a reference point other than the $0 assumed in Equation 1.

The following two tables report additional results for the 20-question module. Table C.16 presents the results when allowing for differential curvature over losses and gains for each reference point model. Comparing to Table 5 we can see that the model with the $0 reference point model fits the data better than when restricting curvature. The performance of the other models, in contrast, is quite similar—meaning that they represent an improved fit for a much smaller percentage of participants.

Finally, Table C.17 presents the results for the 20Q DOSE module excluding any lotteries that just include losses. That is, we re-estimate each of the models—and examine model performance—removing these questions entirely. We can see that the estimates are now quite similar to those in Table 5. The difference in performance between the two DOSE sequences thus appears to be driven by the fact we impose the same utility curvature over gains and losses, rather than any difference in participant behavior.

C.5 Additional Tests of Survey Fatigue and Inconsistency

This Appendix presents results from additional tests that our results are not driven by survey fatigue. First, we show that the distribution of loss aversion changes very little when removing

Table C.15: Performance of reference-dependent models in 20-question DOSE sequence.

Reference Point	All Participants: % Improve. over Chance	All Participants: % with Improved Fit	Loss-Tolerant Subgroup: % Improve. over Chance	Loss-Tolerant Subgroup: % with Improved Fit	% Loss Tolerant
Preferred—$0	48%	–	46%	–	57%
Endowment	18%	20%	5%	17%	–
EV of Lottery	26%	22%	19%	21%	73%
Sure Option	48%	39%	47%	37%	47%
Stochastic	40%	32%	35%	28%	49%
Choice	30%	25%	33%	30%	46%

Notes: Loss-Tolerant Subgroup is the group of participants our preferred model classifies as loss tolerant. % Improvement over chance is equal to 2∗(the percent of choices fit − 50%). % Participants Improved Fit is the percent of participants for whom the model in that row fits better than our preferred model.

Table C.16: Performance of reference-dependent models when allowing for differential curvature.

Reference Point	All Participants: % Improve. over Chance	All Participants: % with Improved Fit	Loss-Tolerant Subgroup: % Improve. over Chance	Loss-Tolerant Subgroup: % with Improved Fit	% Loss Tolerant
Preferred—$0	64%	–	63%	–	68%
Endowment	18%	6%	16%	7%	–
EV of Lottery	32%	10%	28%	10%	88%
Sure Option	45%	11%	45%	12%	49%
Stochastic	36%	8%	35%	8%	50%
Choice	24%	11%	29%	14%	20%

Notes: Loss-Tolerant Subgroup is the group of participants our preferred model classifies as loss tolerant. % Improvement over chance is equal to 2∗(the percent of choices fit − 50%). % Participants Improved Fit is the percent of participants for whom the model in that row fits better than our preferred model.

those completing the survey particularly fast. Second, we carry out an experimental test of inattention within the DOSE module, both in the sample as a whole and within particular subgroups. We find little evidence that choices are due to fatigue or inattention within the survey or within the DOSE modules. Third, we show that individual choice inconsistency does

Table C.17: Performance of reference-dependent models in 20Q DOSE module without loss-only questions.

Reference Point	All Participants: % Improve. over Chance	All Participants: % with Improved Fit	Loss-Tolerant Subgroup: % Improve. over Chance	Loss-Tolerant Subgroup: % with Improved Fit	% Loss Tolerant
Preferred—$0	63%	–	59%	–	51%
Endowment	16%	5%	1%	4%	–
EV of Lottery	29%	9%	20%	10%	69%
Sure Option	54%	23%	50%	27%	46%
Stochastic	41%	12%	34%	14%	50%
Choice	31%	14%	36%	20%	55%

Notes: Loss-Tolerant Subgroup is the group of participants our preferred model classifies as loss tolerant. % Improvement over chance is equal to 2∗(the percent of choices fit − 50%). % Participants Improved Fit is the percent of participants for whom the model in that row fits better than our preferred model.

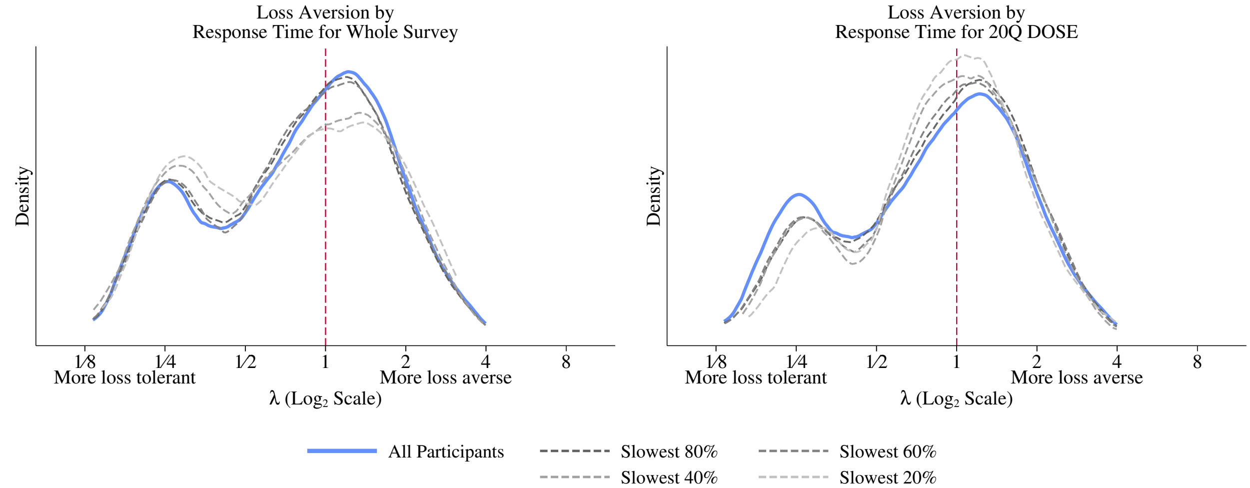
not explain the relationship we observe between cognitive ability and loss aversion.

Figure C.9 shows that the distribution of loss aversion is largely unchanged when removing the fastest responses. Speed on the survey could reflect a participant becoming bored and clicking through screens quickly. In this figure, we first look at the slowest 80% of participants, then the slowest 60%, and so on, across the whole survey (left-hand panel) and within the 20-question DOSE module (right-hand panel). The distributions overlap almost entirely, and the percentage classified as loss tolerant ranges between 54% and 59%. Combined with the results reported in Figure 11 and Table C.6, we find no evidence that fast response or inattention explain our results.

As a check of inattention within the 20-question DOSE sequence, we carried out an experimental test using a measure of *surprise*—the extent to which a person makes choices the Bayesian prior does not expect. In principle, we could be concerned that people stop paying attention as they face a sequence of similar choices and begin "clicking through" the survey at random. We investigate whether this is the case using the fact that, for each question, the DOSE prior identifies the probability an individual will make each choice. If participants are choosing randomly then we would expect them to make choices with a lower prior probability, that is, with a high degree of surprise. Using this metric, we can test whether participants begin to act more randomly later in the DOSE module or when DOSE appears later in the survey. We also check whether the question sequencing affects behavior in some way through, for instance, inadvertently creating a reference point.

We see no evidence that survey fatigue or inattention affects choices in DOSE, as shown in Figure C.10. Here we plot the percentage of "unexpected choices"—those with prior probability less than 0.5—in each round. The left-hand side shows that the proportion is similar regardless of the position of the DOSE module in the survey, and that unexpected choices

Figure C.9: Distribution of loss aversion is similar when removing participants with fast response times.



Notes: The figure displays the distribution of loss aversion estimated in the 20-question DOSE module, plotted using Epanechnikov kernel with bandwidth chosen by rule-of-thumb estimator.

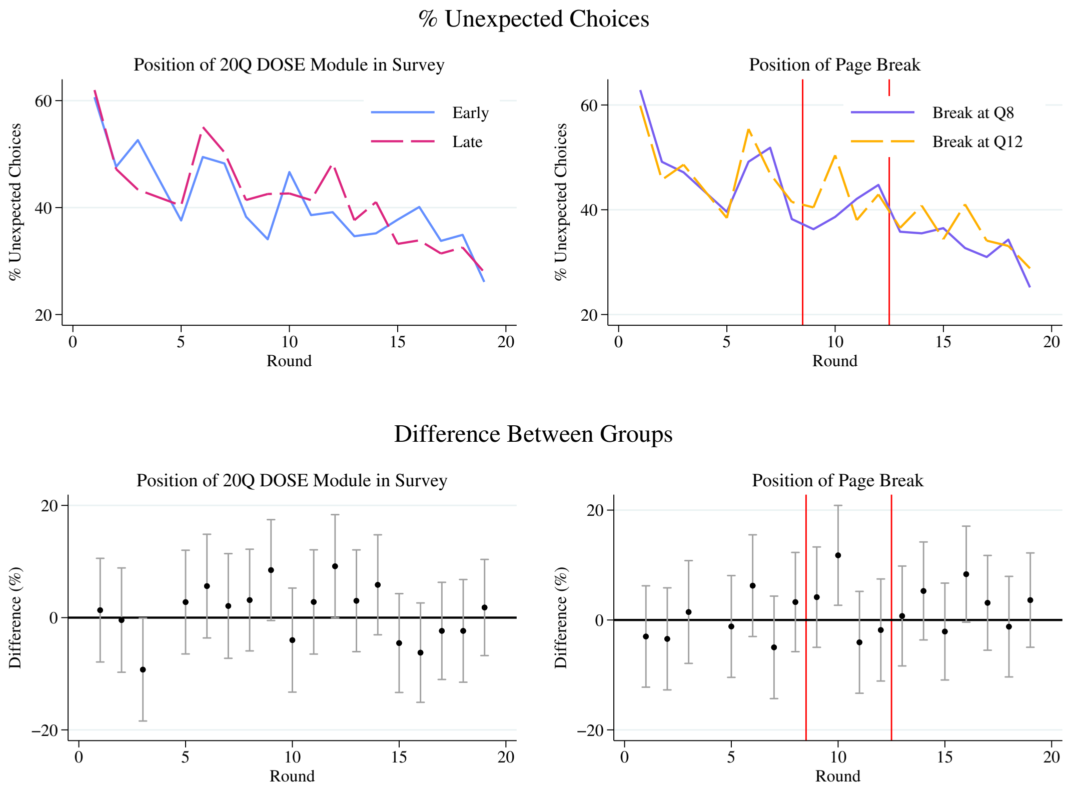
decrease as participants progress further in the module, suggesting fatigue does not lead to random decision-making. On the right-hand side, we use a randomly-located page break to test whether interrupting the question sequence affects choices.[5] As we can see, participant behavior did not change after the sequence was broken, suggesting that choices are not driven by presenting questions sequentially. Thus, as far as we can observe, participants consider each binary choice separately, and pay attention throughout our DOSE modules.

Figure C.11 addresses the concern that fatigue could affect some subgroup within the population, even if it is not evident across the whole sample. Here we repeat the analysis in Figure C.10—analyzing the percentage of choices that are "unexpected" by DOSE—in four subgroups that are particularly important in our analysis. The top row splits the sample according to whether participants are classified as loss tolerant or loss averse by the 20-question DOSE sequence. The bottom row focuses on participants with low or high cognitive ability (the bottom or top terciles). There is little evidence that the randomly-inserted page break affects the level of unexpected choices in any of the groups. The percentage of unexpected choices is not increasing towards the end of the sequence, as would be expected if participants start choosing randomly due to fatigue. Thus our results do not appear to be explained by fatigue amongst either participants classified as loss-tolerant or those with low cognitive ability.

The figure also provides a useful demonstration of how the DOSE updates beliefs about those participants less represented in laboratory experiments. At the first few questions of the sequence, there are more unexpected choices amongst participants classified as either low cognitive ability or loss tolerant. This difference represents the fact that these groups make choices that are further away from our initial prior—which was developed based on participants in earlier laboratory experiments, who tend to tend to be more cognitively able and more loss averse (as discussed in the main text, participants in the laboratory). However, by the end of

[5]The page break consisted of a separate screen (see Appendix Figure E.22) stating "You are almost halfway done with this section. You will now be asked some more questions with a choice between a lottery and an amount of points for certain."

Figure C.10: No evidence of fatigue or inattention within the 20-question DOSE sequence.



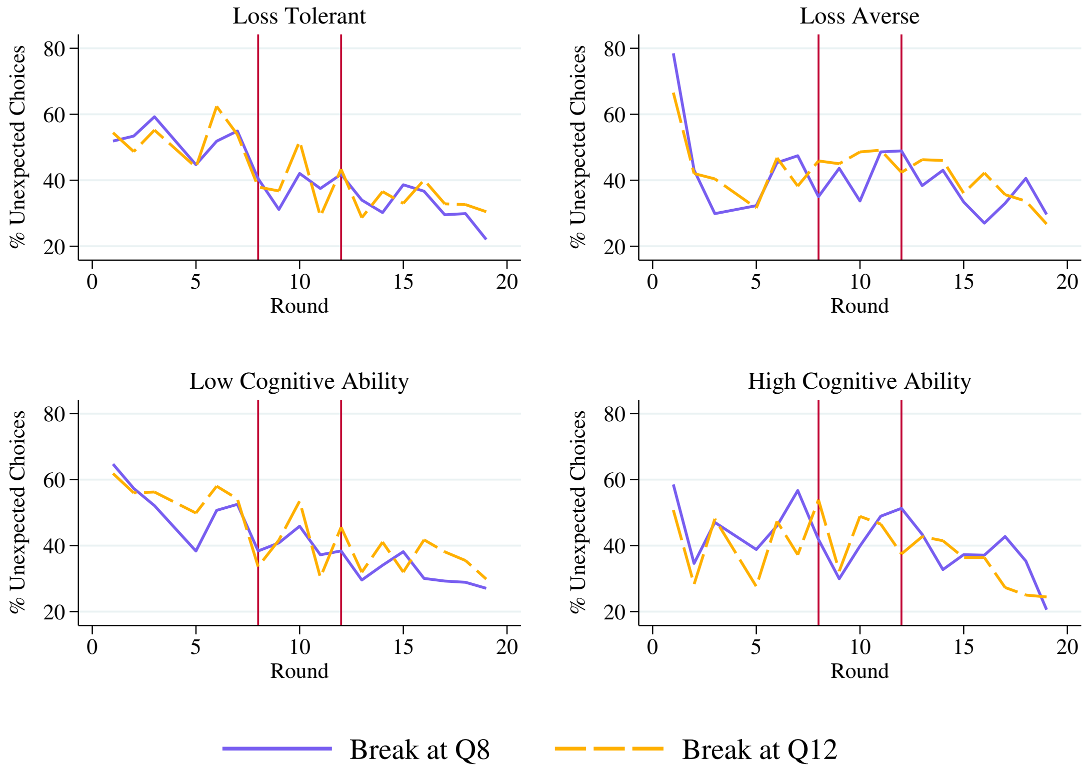
Notes: The figures plot the percentage of participants making choices with a prior probability of less than 0.5. Questions 4 and 20, which were not chosen by DOSE, are excluded.

the sequence, the level of unexpected choice is similar across all four panels, suggesting that the information elicited by DOSE allows posterior estimates that are equally informative across the four groups.

Finally, we investigate whether inconsistent choice could explain the correlations we document between cognitive ability and loss aversion in Table 1. Cognitive ability is negatively correlated with the DOSE choice consistency parameter (μ; $r = -0.13$, s.e. = .04), consistent with previous studies that examine the level of "noise" in preference elicitation (Andersson et al., 2016; Mechera-Ostrovsky et al., 2022). However, it is not the case that low cognitive ability participants are simply acting randomly—the temporal stability of our estimates is relatively high for participants with each level of cognitive ability. Specifically, the over-time correlation of loss aversion for those in the lowest tercile of cognitive ability is 0.34 (s.e. = .07), for the middle tercile it is 0.30 (.06), and for the top tercile it is 0.42 (.06).

Further, the correlation between cognitive ability and loss aversion is similar when accounting for inconsistent choice, inattention, or fatigue. Appendix Table C.6 shows that the correlations are similar when splitting the sample according to a number of inattention indicators. Further, the correlation with cognitive ability is even higher when constraining the sample to those with μ above the sample median ($r = 0.34$, s.e. = .06). This higher correlation is in line with simulation estimates, reported in Chapman et al. (2018), that inconsistent choice leads to greater measurement error in DOSE estimates of loss aversion. However, by directly accounting

Figure C.11: No evidence of fatigue for specific subgroups.



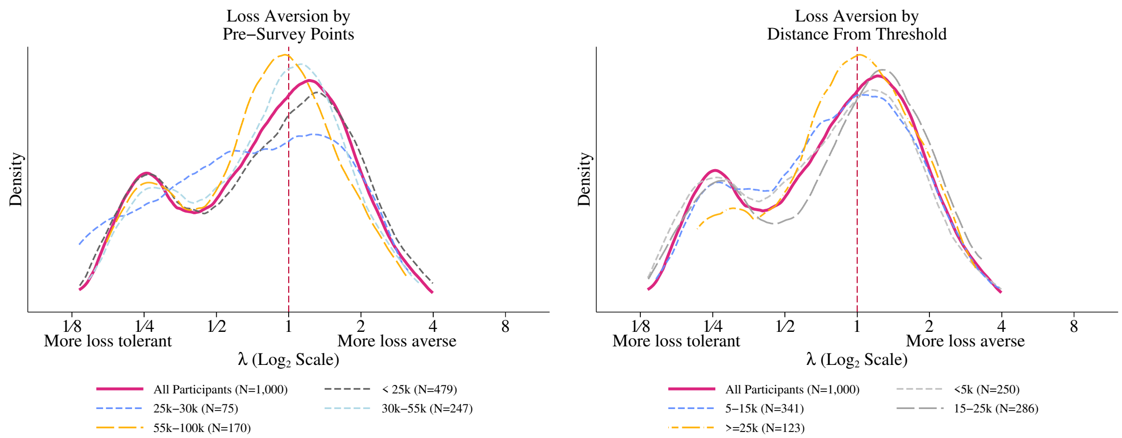
Notes: The figure plots the proportion of participants making choices with a prior probability of less than 0.5. Questions 4 and 20, which were not chosen by DOSE, are excluded. Loss Tolerant (Averse) refers to participants for who $\lambda < 1$ ($\lambda > 1$) according to the DOSE 20-question estimates. Similarly, Risk Averse (Loving) refers to participants for who $\rho < 1$ ($\rho > 1$) according to the DOSE 20-question estimates. "Low" and "High" Cognitive Ability refer to the bottom and top terciles.

for inconsistent choices, DOSE estimates are quite accurate even for participants making many mistakes. Lower-cognitive-ability participants do make less consistent choices in our survey, but the correlations we observe are not explained by a high propensity to make mistakes.

C.6 Tests of Payment Schedule Effects

In this appendix we address the possible concern that our results are an artefact of the YouGov payment system. Throughout the paper we assume that participants translate YouGov's internal currency—points—into monetary amounts at a flat exchange rate of \$0.001 per point. This exchange rate is based on the fact that participants can exchange 100,000 points for \$100 in cash. However, participants can also exchange their points at lower points thresholds at a lower exchange rate, leading to some convexity in the payment schedule. The most significant change in this schedule occurs between the 25,000 and 30,000 point thresholds: 25,000 points can be traded in for a \$15 gift card (\$0.6 per 1,000 points), whereas 30,000 points can be traded in for a \$25 gift card (\$0.83 per 1,000 points). Further significant changes then occur at 55,000 points, which can be cashed in for a \$50 gift card (\$0.91 per 1,000 points), and the highest threshold of 100,000 points, which can be cashed out for \$100 cash or a \$100 gift card (\$1 per 1,000 points).

Figure C.12: Distribution of DOSE 20Q loss aversion estimates by pre-survey points.



Notes: The subgroup of participants with above 100,000 points ($N = 29$) is excluded from the left-hand panel due to small sample size.

There are three features of this payment schedule that could, in principle, affect our results:

1. The use of points rather than monetary amounts, which could cause respondents to be insensitive to the reference point (or have the wrong reference point) in a way that does not generate loss aversion,

2. The convexity of the payment schedule, and

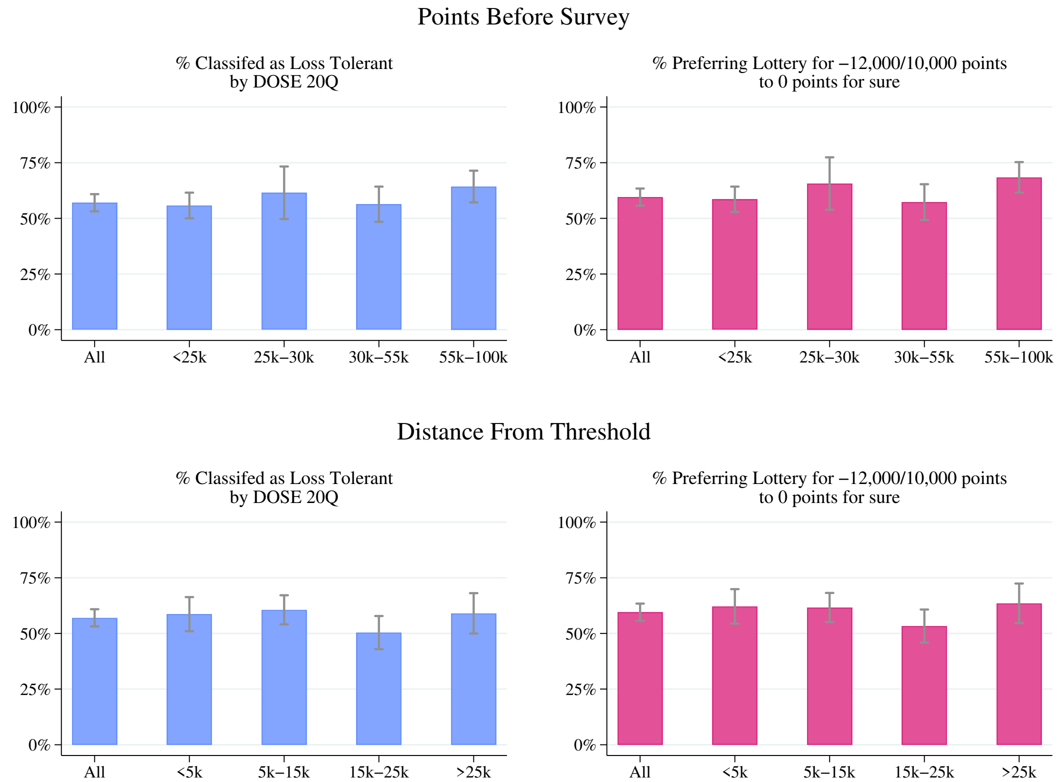
3. The fact that participants can only "cash out" their points at specific thresholds.

The first item is directly addressed by the results in Section 3.1: undergraduate students, also facing decisions using points, exhibit levels of loss aversion that accord with prior studies. Moreover, even within our representative sample, a sizeable minority of participants exhibit loss aversion. The robustness tests presented in Section 5.3 and Appendix C.4 provide further evidence that participants responded to our assumed $0 reference point.

To test whether items 2 and 3 could explain our results, we first investigate whether the level of loss tolerance varies according to the number of points participants held before the survey. We then test specific hypotheses regarding behavior around thresholds that could generate observed loss tolerance. Throughout this analysis we refer to all survey rewards in terms of points (rather than converting to monetary amounts, as in the main text), allowing direct comparison to the thresholds in the payment system. We find no evidence that the payment schedule significantly affects behavior either within the sample as a whole, or for two particular subgroups: participants with low cognitive ability, and participants possessing some latent factor that drives both the real world behaviors (gambling, financial shocks) we measure, and their response to the payment schedule.

Pre-survey points—binned by either level or distance from a threshold, do not seem to affect measured loss aversion, as shown in Figure C.12. The left-hand panel shows the distribution of λ estimated for different groupings of pre-survey points, with each group corresponding to a different level of reward per point. Three items are worth mentioning. First, the distribution

Figure C.13: Loss Tolerance by Pre-survey Points: All Participants



Notes: Sample sizes in top panel: "All" $N = 1{,}000$, <25k $N = 479$; 25–30k $N = 75$; 30–55k $N = 247$; 55–100k $N = 170$. Sample sizes in bottom panel: "All" $N = 1{,}000$, < 5k $N = 250$; 5–15k $N = 341$; $\geq$15–25k $N = 286$; ≥ 25k $N = 123$. Error bars represent 90% confidence intervals.

of the loss aversion parameter (λ) for those who enter the survey with < 25k points (48% of our sample), and hence potentially affected by the most significant point of convexity in the payment schedule, closely resembles that of the overall sample. Second, the main mode of the distribution seems, if anything, to shift towards increasing loss tolerance as the convexity of the payment schedule declines—the opposite of what one would expect if convexity were the source of loss tolerance—although we will see below that these differences are not statistically significant. Finally, the distribution of λ for the 75 participants who started the survey with between 25–30k points is much flatter than other distributions. While this is likely driven by small sample size, our results are robust to omitting these participants.

The right-hand panel of Figure C.12 groups participants by the number of points they require at the start of the survey to cross a major cash-out threshold. While the width of these bins is arbitrary, the figure shows a clear pattern: the distribution of our estimates of λ does not change much as one gets further from a major threshold. Of particular note are those who are more than 25k points away from a major threshold, as this entirely excludes the group potentially affected by the most significant point of convexity in the payment schedule.

Figure C.13 uses our choice data, as well as the DOSE estimates of λ, to investigate the possible role of pre-survey points in determining observed loss tolerance. In this figure we compute, within various bins, both the percent of participants we classify as loss tolerant using DOSE, and the percent choosing the $-12{,}000/10{,}000$ lottery over 0 points (the lottery that we describe in the introduction and analyze throughout the paper). The result of this analysis is very clear: there is no statistical or substantial difference between any of the bins for either of these variables. Moreover, there is no clear pattern in the point estimates.

C.6.1 A Theory of Threshold Response

We can conduct more powerful tests of whether thresholds seem to be changing responses by developing a specific theory of how threshold response could, in principle, generate loss tolerance. If participants are focused on the opportunity to cash in their points after crossing a threshold, we would expect them to be averse to potential losses that may take them below such a threshold—which would not threaten our main finding. However, they may also be unconcerned about any losses that do not drop them below a threshold—leading to an appearance of loss tolerance.

Specifically, consider a participant with pre-survey points P, who receives a survey completion fee ($S = 3,000$) and an endowment E at the start of a survey module (for instance, 15,000 in the case of the DOSE 20Q module). Suppose the participant is aiming to cash-in their points at a threshold T, and that $P + S + E > T$—that is, they will reach their goal unless they lose points during the survey module. The participant should then reject any loss $L > 0$ such that $P + S + E - L < T$. That is, the closer one is to a threshold when entering the survey, the more willing they will be to take losses, making them appear loss tolerant.

We test this hypothesis using data from three different elicitations in our survey, and find no evidence to support it. First, we consider choices regarding the binary lottery displayed in Figure 1, offering participants a choice between receiving 0 points for sure, or either -12,000 points or 10,000 points, each with 50% probability. Of the 434 participants at risk of falling below a threshold by choosing this lottery, 59% do so—compared to 60% amongst 566 not at risk (p-val = 0.74). Thus, it does not appear the likelihood of falling below such a threshold affects the willingness to accept this lottery.

Second, we consider the choices of participants in a multiple price list (MPL) eliciting the lottery equivalent X from a choice between 0 points for sure or a 50/50 lottery between 5,000 points and -X points. We observe that 65% of the 169 participants who may fall below a threshold by choosing the lottery make a loss tolerant choice (accepting $X \geq 5,000$). This level is slightly higher than amongst the 831 participants not at threat of falling below a threshold (57%, p-val=0.16). Again, it does not appear that the threat of falling below a threshold inhibits acceptance of losses.

Finally, we consider choices in an MPL eliciting certainty equivalents for a lottery between a loss of 5,000 points and 0 points, each with 50% probability. If participants were motivated to stay above a threshold, we would predict they would never accept a certain loss that took them beneath that threshold. Specifically, we consider participants for whom $T \leq P + S + E < T + 5000$. These participants should accept a certain loss $5,000 > L > 0$ if and only if $L \leq P + S + E - T$. They should accept the lottery if and only if $L > P + S + E - T$. Only 5/189 (2.6%) of participants in this group acted this way. Again, we see little evidence that participants' decisions are motivated by the presence of a threshold.

C.6.2 Subgroups

The results above substantially reduce the concern that the payment schedule explains the level of loss tolerance in the sample as a whole. However, an alternative concern could be that the payment schedule affects the responses of different groups differently, and hence can explain both a high level of loss tolerance and the correlations we find between loss aversion and individual characteristics. We thus provide further results to address this additional concern.

We consider two groups of participants that may be disproportionately affected by the payment schedule, making them (incorrectly) appear loss tolerant. First, those with low cognitive ability, using the measure obtained during the survey. Second, we consider the possibility that some other latent factor (such as "impulsivity") could, when interacted with the payment schedule, produce the correlations we observe between loss aversion and real world behaviors (as reported in Tables 3 and 4). We include separate analyses for each group.

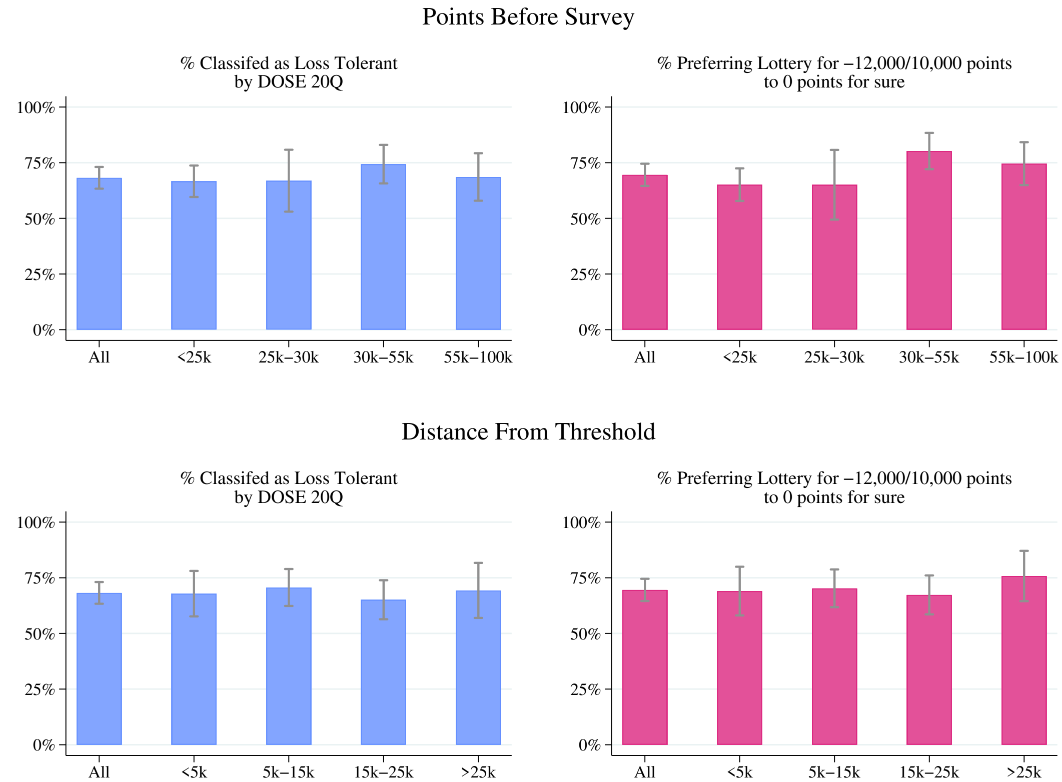
Participants with low cognitive ability (low CA): We first consider the hypothesis that low CA participants are particularly responsive to the payment schedule, making them appear more loss tolerant than those with higher cognitive ability (this differential responsiveness is necessary to explain the correlations in Table 1).

We address this concern by following the same arguments as with the full population, using our direct measure of cognitive ability. While addressing item 1 (the use of points rather than money) is no longer possible by pointing to the student sample, the fact that a substantial minority (32%) of low CA participants appears loss averse again suggests that reference points are "working" when rewards are expressed in points. We can also compare the level of loss tolerance after dividing the low CA participants into the same groups as above, based on which thresholds they are between, or how far away they are from crossing a threshold. Figure C.14 shows that the level of loss tolerance is similar across these groups, measured as either the percentage classified as loss tolerant, or the percentage that choose the -12,000/10,000 lottery.

Finally, we perform the three more specific tests based on our theory of threshold response. First, for participants that are low CA and at risk of falling below a threshold by choosing the -12,000/10,000 lottery, 67% choose the lottery versus 71% of those who are not at risk (p-val=0.51). Second, for those who are low CA and who have pre-survey points such that accepting a lottery (in a lottery equivalent MPL) with a possible loss of at least 5,000 points puts them at risk of falling below a threshold, 68% choose the lottery versus 67% of those not at risk (p-val=0.92). Third, only 2/92 low CA participants with $T \leq P + S + E < T + 5,000$ have a pattern of response consistent with the third direct test.

Participants with some latent factor (LF): We now turn to the concern that people who are more likely to gamble and also to experience financial shocks will respond to the payment schedule by making choices that appear loss tolerant. For example, participants who are more impulsive may both gamble more and be more likely to trade in their points at a lower points-to-cash value—meaning they face greater convexity in their payment schedule. The same argument would apply to people who have any latent factor (LF) that leads to these behaviors. This could explain the results in Tables 3 and 4 if LF is also orthogonal to our controls for cognitive ability and demographic characteristics (inclusion of which minimally changes the relationship between loss aversion and our measures of real world behaviors).

Figure C.14: Loss Tolerance by Pre-survey Points: Low Cognitive Ability Participants



Notes: The figure includes only participants in the bottom tercile of cognitive ability. Sample sizes in top panel: "All" $N = 462$; <25k $N = 246$; 25–30k $N = 37$; 30–55k $N = 100$; 55–100k $N = 69$. Sample sizes in bottom panel: "All" $N = 462$, < 5k $N = 121$; 5–15k $N = 151$; $\geq$15–25k $N = 142$; $\geq$25k $N = 48$. Error bars represent 90% confidence intervals.

As we do not have a direct measure of LF, we address this concern by constructing a proxy. To do so, we begin by noting that a theory where the payment schedule can explain all of our results would conjecture that:

$$Apparent\ Loss\ Tolerance = (CA + LF) \times Payment\ Schedule + \varepsilon$$

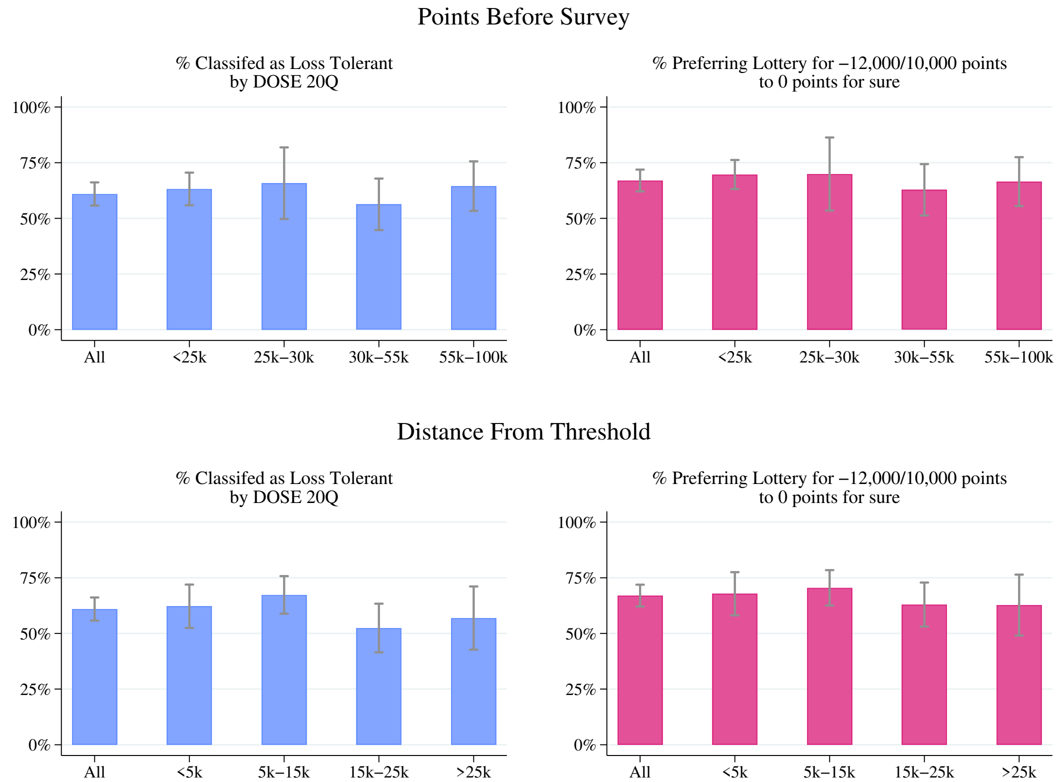
Further, under this theory, the positive correlation between measured loss tolerance and casual and serious gambling, and between loss tolerance and financial shocks is driven by the latent relationship between LF and gambling/financial shocks. Thus, LF is given by:

$$LF = (serious + casual\ gambling + financial\ shocks)|(CA,\ demographics)\ +\ \eta$$

We thus create a proxy by adding together our measures of gambling and experiencing financial shocks, regressing that on cognitive ability and demographics, and taking the residual. Higher levels of this residual are a proxy for greater values of LF.

We can then examine the pool of participants who have a high level of this LF proxy, and, in particular, investigate whether their behavior varies according to the number of points they held

Figure C.15: Loss Tolerance by Pre-survey Points: High LF Participants



Notes: The figure includes only participants above the median of the LF measure, defined in the text. Sample sizes in top panel: "All" $N = 490$, <25k $N = 247$; 25–30k $N = 40$; 30–55k $N = 117$; 55–100k $N = 41$. Sample sizes in bottom panel: "All" $N = 490$, < 5k $N = 136$; 5–15k $N = 172$; $\geq$15–25k $N = 127$; ≥ 25k $N = 55$. Error bars represent 90% confidence intervals.

pre-survey. Once again, a substantial minority (39%) appears loss averse, providing evidence that the reference point is "working." Also, similar to before, the degree of loss tolerance appears similar across all the groupings within this high LF group, as shown in Figure C.15.

Finally, we can perform the three more specific tests that come from our theory of response to thresholds. First, both participants that are and are not at risk of falling below a threshold by choosing the -12,000/10,000 and have high LF choose the lottery 67% of the time. Second, of those who have high LF and who have pre-survey points such that accepting a lottery (in a lottery equivalent MPL) with a possible loss of at least 5,000 points puts them at risk of falling below a threshold, 70% choose the lottery versus 59% of those not at risk (p-val=0.14). Third, only 2/97 high LF participants with $T \leq P + S + E < T + 5,000$ have a pattern of response consistent with the third direct test.

Together, these results provide strong evidence against the hypothesis that our results are driven by the reaction of these specific subgroups—participants with low cognitive ability or high LF—to the YouGov payment schedule. Loss tolerance is not concentrated in these subgroups, nor do these participants appear to react to the presence of thresholds.

D Principal Components Analysis

Figures D.16 and D.17 display scree plots for the Principal Components Analysis reported in Section 4.1.

Figure D.16: Scree Plot for PCA of Gambling Measures

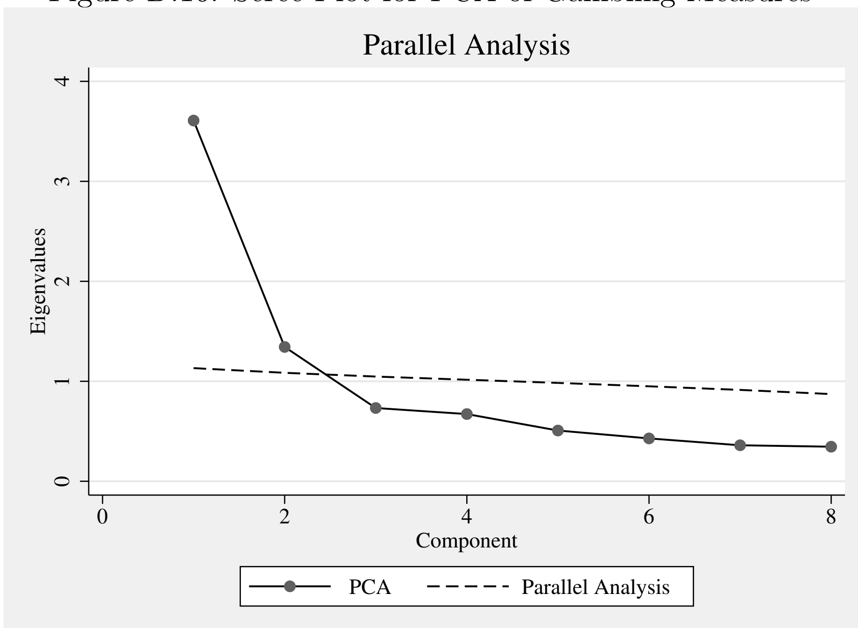
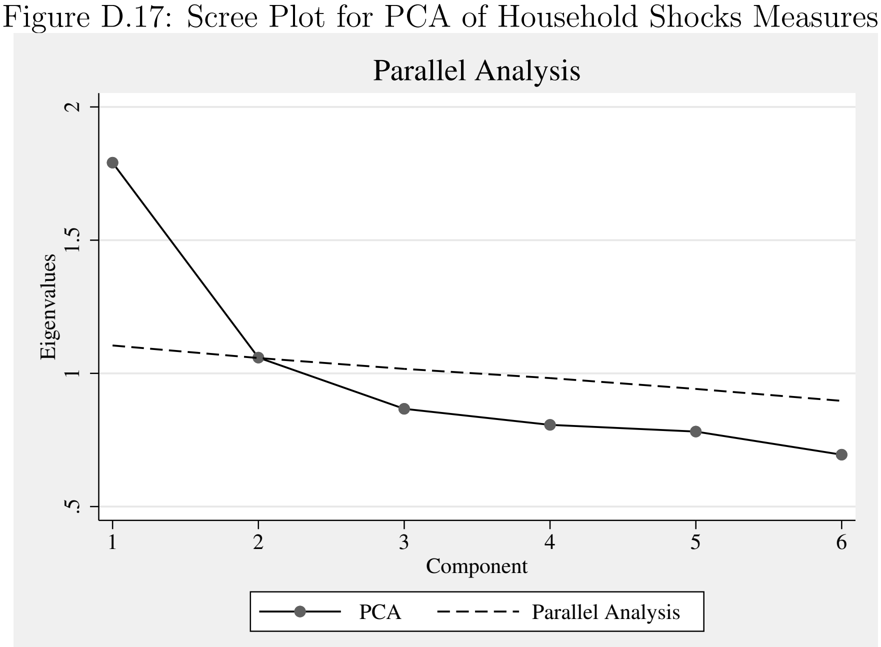


Figure D.17: Scree Plot for PCA of Household Shocks Measures



E Screenshots

This subsection contains screenshots of the experimental instructions, and examples of each type of questions analyzed in this paper. Full design documents and screenshots can be found at eriksnowberg.com/wep.html.

Figure E.18: Survey Instructions I

YouGov

YouGov is inviting you to take a **different** kind of survey.

If you read these instructions carefully and make good decisions **you may earn up to 33,000 points** by the end of the survey. **Please pay close attention**, as you will need to correctly answer a few questions about these instructions.

During the survey, you will be asked a number of questions that ask you to **choose between different types of lotteries and payments**. At the end of the survey, one of these questions will be selected randomly, and your answer to that question will determine how many points you earn.

For example, suppose your earnings were determined, in part, by a question that asked you to decide between

- a lottery that gave a 50% chance of 10,000 points and a 50% chance of 0 points, and
- a fixed amount of 1,000 points.

If you chose the lottery, then it would be run, and you would get **either** 0 or 10,000 points, each with 50% probability. **If you chose 1,000 points**, then 1,000 points would be directly credited to your account.

Thus, the points you earn will depend on both your choices and luck.

Some sections will **start you with a fixed number of points,** say 5,000, and choices in that section will have the possibility of a loss from that total.

For example, suppose your earnings were determined, in part, by a question that asked you to decide between

- a lottery that gave a 50% chance of losing 3,000 points and a 50% chance of gaining 5,000 points, and,
- a loss of 1,000 points.

If you chose the first option, and the lottery selected the loss of 3,000 points, then you would receive 5,000 − 3,000 = 2,000 points if this question were chosen for payment. **If the lottery selected the gain,** you would receive 5,000 + 5,000 = 10,000 points. **If you chose the second option,** then you would receive 5,000 − 1,000 = 4,000 points if this question were chosen for payment.

In addition to the points earned for your choices, you will earn **3,000** points for completing the survey. Thus, the **minimum** number of points you will earn for taking this survey is **3,000**. The **maximum is 33,000**. The **average is 15,000**. You will not earn points unless you complete the survey.

The survey pays so much more than usual because the survey will take about **45 minutes**, and we want you to pay close attention for that entire time.

Figure E.19: Survey Instructions II

This survey often uses a special type of question. We want to help you answer these questions **quickly** and **accurately**.

This special type of question has many similar choices, as in the example below. The options on the left are always the same, while those on the right change — getting better and better.

If a question like this is picked for payment, **one row** will be selected, and you will be paid according to the choice **you made in that row**. It is important that your answers in each row **are accurate** so you will get the payment **you want**.

You will see a screen that looks like this.

☑ 5,000 points	or	☐ 0 points
☐ 5,000 points	or	☐ 1,000 points
☐ 5,000 points	or	☐ 2,000 points
☐ 5,000 points	or	☐ 3,000 points
☐ 5,000 points	or	☐ 4,500 points
☐ 5,000 points	or	☐ 5,500 points
☐ 5,000 points	or	☐ 6,000 points
☐ 5,000 points	or	☐ 7,000 points
☐ 5,000 points	or	☐ 8,000 points
☐ 5,000 points	or	☐ 9,000 points
☐ 5,000 points	or	☑ 10,000 points

Figure E.20: DOSE 20-question Sequence Example Question: Gains Only

YouGov

Which of the following options do you prefer?

○ Gaining 5,900 points for certain,

OR

● A lottery where you may gain 15,000 points or receive 0 points, each with 50% probability.

Figure E.21: DOSE 20-question Sequence Example Question: Losses Only

YouGov

Which of the following options do you prefer?

○ Losing 3,600 points for certain,

OR

○ A lottery where you may lose 13,400 points or receive 0 points, each with 50% probability.

Figure E.22: DOSE 20-question Sequence Page Break

You are almost halfway done with this section. You will now be asked some more questions with a choice between a lottery and an amount of points for certain.

Figure E.23: DOSE 10-question Sequence Instruction Screen

Section 7 of 11

In the next few questions, you will be asked to choose between two lotteries.

You will start this section with 10,000 points, which you may lose based on the lotteries you choose in this section. That is, some of the lotteries in this section may both **add** to or **subtract** from this initial 10,000 points.

For example, suppose you chose a lottery that had a 50% chance of adding 5,000 points, and a 50% chance of subtracting 5,000 points. In the case of winning, the 5,000 will be added to your additional 10,000. In the case of a loss, the 5,000 will be subtracted from your initial 10,000. Note that you will never have the possibility of losing more than 10,000, so at worst you will end this section with 0 points.

Figure E.24: DOSE 10-question Sequence Example Question: Both Gains and Losses

YouGov

Which of the following options do you prefer?

- A lottery where you can either receive 7,000 points or lose 6,300 points, each with probability 50%;

OR

- Receiving 0 points for certain.

Figure E.25: DOSE 10-question Sequence Example Question: Gains Only

YouGov

Which of the following options do you prefer?

- A lottery where you can either receive 10,000 points or receive 0 points, each with probability 50%;

OR

- Receiving 5,200 points for certain.

Figure E.26: First MPL Eliciting Lottery Equivalent for a Fixed Amount of Points

For each row in the table below, which option would you prefer?

☐ 0 points	or	☐ A 50% chance of losing 10,000 points, and a 50% chance of gaining 5,000 points
☐ 0 points	or	☐ A 50% chance of losing 9,000 points, and a 50% chance of gaining 5,000 points
☐ 0 points	or	☐ A 50% chance of losing 8,000 points, and a 50% chance of gaining 5,000 points
☐ 0 points	or	☐ A 50% chance of losing 7,000 points, and a 50% chance of gaining 5,000 points
☐ 0 points	or	☐ A 50% chance of losing 6,500 points, and a 50% chance of gaining 5,000 points
☐ 0 points	or	☐ A 50% chance of losing 6,000 points, and a 50% chance of gaining 5,000 points
☐ 0 points	or	☐ A 50% chance of losing 5,500 points, and a 50% chance of gaining 5,000 points
☐ 0 points	or	☐ A 50% chance of losing 5,000 points, and a 50% chance of gaining 5,000 points
☐ 0 points	or	☐ A 50% chance of losing 4,500 points, and a 50% chance of gaining 5,000 points
☐ 0 points	or	☐ A 50% chance of losing 4,000 points, and a 50% chance of gaining 5,000 points
☐ 0 points	or	☐ A 50% chance of losing 3,500 points, and a 50% chance of gaining 5,000 points
☐ 0 points	or	☐ A 50% chance of losing 3,000 points, and a 50% chance of gaining 5,000 points
☐ 0 points	or	☐ A 50% chance of losing 2,500 points, and a 50% chance of gaining 5,000 points
☐ 0 points	or	☐ A 50% chance of losing 2,000 points, and a 50% chance of gaining 5,000 points
☐ 0 points	or	☐ A 50% chance of losing 1,500 points, and a 50% chance of gaining 5,000 points
☐ 0 points	or	☐ A 50% chance of losing 1,000 points, and a 50% chance of gaining 5,000 points
☐ 0 points	or	☐ A 50% chance of 0 points, and a 50% chance of gaining 5,000 points
☐ 0 points	or	☑ A 50% chance of gaining 1,000 points, and a 50% chance of gaining 5,000 points

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Figure E.27: Second MPL Eliciting Lottery Equivalent for a Fixed Amount of Points

For each row in the table below, which option would you prefer?

☐ 0 points	or	☐ A 50% chance of losing 10,000 points, and a 50% chance of gaining 4,000 points
☐ 0 points	or	☐ A 50% chance of losing 9,000 points, and a 50% chance of gaining 4,000 points
☐ 0 points	or	☐ A 50% chance of losing 8,000 points, and a 50% chance of gaining 4,000 points
☐ 0 points	or	☐ A 50% chance of losing 7,000 points, and a 50% chance of gaining 4,000 points
☐ 0 points	or	☐ A 50% chance of losing 6,500 points, and a 50% chance of gaining 4,000 points
☐ 0 points	or	☐ A 50% chance of losing 6,000 points, and a 50% chance of gaining 4,000 points
☐ 0 points	or	☐ A 50% chance of losing 5,500 points, and a 50% chance of gaining 4,000 points
☐ 0 points	or	☐ A 50% chance of losing 5,000 points, and a 50% chance of gaining 4,000 points
☐ 0 points	or	☐ A 50% chance of losing 4,500 points, and a 50% chance of gaining 4,000 points
☐ 0 points	or	☐ A 50% chance of losing 4,000 points, and a 50% chance of gaining 4,000 points
☐ 0 points	or	☐ A 50% chance of losing 3,500 points, and a 50% chance of gaining 4,000 points
☐ 0 points	or	☐ A 50% chance of losing 3,000 points, and a 50% chance of gaining 4,000 points
☐ 0 points	or	☐ A 50% chance of losing 2,500 points, and a 50% chance of gaining 4,000 points
☐ 0 points	or	☐ A 50% chance of losing 2,000 points, and a 50% chance of gaining 4,000 points
☐ 0 points	or	☐ A 50% chance of losing 1,500 points, and a 50% chance of gaining 4,000 points
☐ 0 points	or	☐ A 50% chance of losing 1,000 points, and a 50% chance of gaining 4,000 points
☐ 0 points	or	☐ A 50% chance of 0 points, and a 50% chance of gaining 4,000 points
☐ 0 points	or	☑ A 50% chance of gaining 1,000 points, and a 50% chance of gaining 4,000 points

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Figure E.28: First MPL Eliciting Certainty Equivalent for a Mixed Lottery

For each row in the table below, which option would you prefer?

☑ A 50% chance of winning 5,000 points, and a 50% chance of losing 5,000 points	or	☐ Losing 6,000 points
☐ A 50% chance of winning 5,000 points, and a 50% chance of losing 5,000 points	or	☐ Losing 5,000 points
☐ A 50% chance of winning 5,000 points, and a 50% chance of losing 5,000 points	or	☐ Losing 4,000 points
☐ A 50% chance of winning 5,000 points, and a 50% chance of losing 5,000 points	or	☐ Losing 3,000 points
☐ A 50% chance of winning 5,000 points, and a 50% chance of losing 5,000 points	or	☐ Losing 2,500 points
☐ A 50% chance of winning 5,000 points, and a 50% chance of losing 5,000 points	or	☐ Losing 2,000 points
☐ A 50% chance of winning 5,000 points, and a 50% chance of losing 5,000 points	or	☐ Losing 1,750 points
☐ A 50% chance of winning 5,000 points, and a 50% chance of losing 5,000 points	or	☐ Losing 1,500 points
☐ A 50% chance of winning 5,000 points, and a 50% chance of losing 5,000 points	or	☐ Losing 1,250 points
☐ A 50% chance of winning 5,000 points, and a 50% chance of losing 5,000 points	or	☐ Losing 1,000 points
☐ A 50% chance of winning 5,000 points, and a 50% chance of losing 5,000 points	or	☐ Losing 750 points
☐ A 50% chance of winning 5,000 points, and a 50% chance of losing 5,000 points	or	☐ Losing 500 points
☐ A 50% chance of winning 5,000 points, and a 50% chance of losing 5,000 points	or	☐ Losing 250 points
☐ A 50% chance of winning 5,000 points, and a 50% chance of losing 5,000 points	or	☐ 0 points
☐ A 50% chance of winning 5,000 points, and a 50% chance of losing 5,000 points	or	☐ Gaining 250 points
☐ A 50% chance of winning 5,000 points, and a 50% chance of losing 5,000 points	or	☐ Gaining 500 points
☐ A 50% chance of winning 5,000 points, and a 50% chance of losing 5,000 points	or	☐ Gaining 1,000 points
☐ A 50% chance of winning 5,000 points, and a 50% chance of losing 5,000 points	or	☐ Gaining 3,000 points
☐ A 50% chance of winning 5,000 points, and a 50% chance of losing 5,000 points	or	☐ Gaining 5,000 points
☐ A 50% chance of winning 5,000 points, and a 50% chance of losing 5,000 points	or	☑ Gaining 7,000 points

Figure E.29: Second MPL Eliciting Certainty Equivalent for a Mixed Lottery

For each row in the table below, which option would you prefer?

☑ A 50% chance of winning 4,000 points, and a 50% chance of losing 4,000 points	or	☐ Losing 5,000 points
☐ A 50% chance of winning 4,000 points, and a 50% chance of losing 4,000 points	or	☐ Losing 4,000 points
☐ A 50% chance of winning 4,000 points, and a 50% chance of losing 4,000 points	or	☐ Losing 3,000 points
☐ A 50% chance of winning 4,000 points, and a 50% chance of losing 4,000 points	or	☐ Losing 2,500 points
☐ A 50% chance of winning 4,000 points, and a 50% chance of losing 4,000 points	or	☐ Losing 2,000 points
☐ A 50% chance of winning 4,000 points, and a 50% chance of losing 4,000 points	or	☐ Losing 1,750 points
☐ A 50% chance of winning 4,000 points, and a 50% chance of losing 4,000 points	or	☐ Losing 1,500 points
☐ A 50% chance of winning 4,000 points, and a 50% chance of losing 4,000 points	or	☐ Losing 1,250 points
☐ A 50% chance of winning 4,000 points, and a 50% chance of losing 4,000 points	or	☐ Losing 1,000 points
☐ A 50% chance of winning 4,000 points, and a 50% chance of losing 4,000 points	or	☐ Losing 750 points
☐ A 50% chance of winning 4,000 points, and a 50% chance of losing 4,000 points	or	☐ Losing 500 points
☐ A 50% chance of winning 4,000 points, and a 50% chance of losing 4,000 points	or	☐ Losing 250 points
☐ A 50% chance of winning 4,000 points, and a 50% chance of losing 4,000 points	or	☐ 0 points
☐ A 50% chance of winning 4,000 points, and a 50% chance of losing 4,000 points	or	☐ Gaining 250
☐ A 50% chance of winning 4,000 points, and a 50% chance of losing 4,000 points	or	☐ Gaining 500 points
☐ A 50% chance of winning 4,000 points, and a 50% chance of losing 4,000 points	or	☐ Gaining 1,000 points
☐ A 50% chance of winning 4,000 points, and a 50% chance of losing 4,000 points	or	☐ Gaining 2,000 points
☐ A 50% chance of winning 4,000 points, and a 50% chance of losing 4,000 points	or	☐ Gaining 3,000 points
☐ A 50% chance of winning 4,000 points, and a 50% chance of losing 4,000 points	or	☐ Gaining 4,000 points
☐ A 50% chance of winning 4,000 points, and a 50% chance of losing 4,000 points	or	☑ Gaining 5,000 points

Figure E.30: First MPL Eliciting Certainty Equivalent for a Lottery over Gains

For each row in the table below, which option would you prefer?

☑	A 50% chance of 5,000 points, and a 50% chance of 0 points	or	☐ -500 points
☐	A 50% chance of 5,000 points, and a 50% chance of 0 points	or	☐ 0 points
☐	A 50% chance of 5,000 points, and a 50% chance of 0 points	or	☐ 500 points
☐	A 50% chance of 5,000 points, and a 50% chance of 0 points	or	☐ 1,000 points
☐	A 50% chance of 5,000 points, and a 50% chance of 0 points	or	☐ 1,250 points
☐	A 50% chance of 5,000 points, and a 50% chance of 0 points	or	☐ 1,500 points
☐	A 50% chance of 5,000 points, and a 50% chance of 0 points	or	☐ 1,750 points
☐	A 50% chance of 5,000 points, and a 50% chance of 0 points	or	☐ 2,000 points
☐	A 50% chance of 5,000 points, and a 50% chance of 0 points	or	☐ 2,250 points
☐	A 50% chance of 5,000 points, and a 50% chance of 0 points	or	☐ 2,500 points
☐	A 50% chance of 5,000 points, and a 50% chance of 0 points	or	☐ 2,750 points
☐	A 50% chance of 5,000 points, and a 50% chance of 0 points	or	☐ 3,000 points
☐	A 50% chance of 5,000 points, and a 50% chance of 0 points	or	☐ 3,250 points
☐	A 50% chance of 5,000 points, and a 50% chance of 0 points	or	☐ 3,500 points
☐	A 50% chance of 5,000 points, and a 50% chance of 0 points	or	☐ 3,750 points
☐	A 50% chance of 5,000 points, and a 50% chance of 0 points	or	☐ 4,000 points
☐	A 50% chance of 5,000 points, and a 50% chance of 0 points	or	☐ 4,500 points
☐	A 50% chance of 5,000 points, and a 50% chance of 0 points	or	☐ 5,000 points
☐	A 50% chance of 5,000 points, and a 50% chance of 0 points	or	☑ 5,500 points

Figure E.31: Second MPL Eliciting Certainty Equivalent for a Lottery over Gains

For each row in the table below, which option would you prefer?

☑	A 50% chance of 4,000 points, and a 50% chance of 1,000 points	or	☐ 600 points
☐	A 50% chance of 4,000 points, and a 50% chance of 1,000 points	or	☐ 1,000 points
☐	A 50% chance of 4,000 points, and a 50% chance of 1,000 points	or	☐ 1,400 points
☐	A 50% chance of 4,000 points, and a 50% chance of 1,000 points	or	☐ 1,600 points
☐	A 50% chance of 4,000 points, and a 50% chance of 1,000 points	or	☐ 1,800 points
☐	A 50% chance of 4,000 points, and a 50% chance of 1,000 points	or	☐ 2,000 points
☐	A 50% chance of 4,000 points, and a 50% chance of 1,000 points	or	☐ 2,200 points
☐	A 50% chance of 4,000 points, and a 50% chance of 1,000 points	or	☐ 2,400 points
☐	A 50% chance of 4,000 points, and a 50% chance of 1,000 points	or	☐ 2,600 points
☐	A 50% chance of 4,000 points, and a 50% chance of 1,000 points	or	☐ 2,800 points
☐	A 50% chance of 4,000 points, and a 50% chance of 1,000 points	or	☐ 3,000 points
☐	A 50% chance of 4,000 points, and a 50% chance of 1,000 points	or	☐ 3,200 points
☐	A 50% chance of 4,000 points, and a 50% chance of 1,000 points	or	☐ 3,400 points
☐	A 50% chance of 4,000 points, and a 50% chance of 1,000 points	or	☐ 3,600 points
☐	A 50% chance of 4,000 points, and a 50% chance of 1,000 points	or	☐ 4,000 points
☐	A 50% chance of 4,000 points, and a 50% chance of 1,000 points	or	☑ 4,600 points

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Figure E.32: Questions on Gambling Activity

When was the last time, if at all, you bet or gambled for money on each of the following?

	Within the past 30 days	Between 30 days and 12 months ago	More than 12 months ago	Never
Lotteries or lottos such as Powerball or Mega Millions.	○	○	○	○
Lottery scratch tickets.	○	○	○	○
Betting on sports whether online or with a sports book.	○	○	○	○
Online card games, online slot machines, or other types of online gambling.	○	○	○	○
Slot machines, bingo, keno, or video gambling, at a casino or elsewhere.	○	○	○	○
Card games, roulette, or other games of chance or skill at a casino.	○	○	○	○
Bet or wagered with friends, family, or others outside a casino (e.g., on card games, or basketball).	○	○	○	○
Betting or gambling using some other game, activity, or event we have not listed.	○	○	○	○

Figure E.33: Example of Questions on Household Shock

In the past 12 months, has someone in your household suffered an illness or injury requiring a trip to the hospital?

- ○ Yes
- ○ No

Figure E.34: Attention Screener I

People spend their time doing different things. Over the last year, how frequently have you done each of these activities?

	Never	Less than once a month	About once a month	Once a week	More than once a week
Ridden a bus or subway					
Flown on an airplane					
Been to the gym					
Traveled to the moon					
Gone to the grocery store					
Read a book					
Cooked dinner					
Given birth					
Gone to a religious service					
Gotten a haircut					

Figure E.35: Attention Screener II

People like many different colors. What about you? To demonstrate that you are reading this question, please select purple and yellow from the list below. That's right, just select these two options, no matter what your favorite color is.

- Blue
- Red
- Green
- Purple
- Black
- Orange
- Yellow
- Gold

Figure E.36: Attention Screener III Part 1

We'd like to know how you feel about local news coverage. Please read this short article. On the next page, we will ask you a few questions about your reactions to this article.

MAN ARRESTED FOR STRING OF BANK THEFTS

Columbus Police have arrested a man they say gave his driver's license to a teller at a bank he was robbing.

According to court documents, Bryan Simon is accused of robbing four Central Ohio banks between October 3 and November 5, 2018.

During a robbery on November 5 at the Huntington Bank, the sheriff's office says Simon was tricked into giving the teller his drivers' license.

According to court documents, Simon approached the counter and presented a demand note for money that said "I have a gun." The teller gave Simon about $500, which he took.

Documents say Simon then told the teller he wanted more money. The teller told him a driver's license was required to use the machine to get out more cash. Simon reportedly then gave the teller his license to swipe through the machine and then left the bank with about $1,000 in additional cash, but without his ID.

Detectives arrested him later that day at the address listed on his ID.

Figure E.37: Attention Screener III Part 2

Do you think this article is typical of local news coverage?

- Yes
- Maybe
- No

Do you think there is too much coverage of crime in local newspapers?

- Yes
- Maybe
- No

How was Simon identified by police for the crime he allegedly committed?

- A police officer recognized him
- From video surveillance
- Because he left his ID
- He turned himself in
- None of the above

How much money did Simon allegedly steal?

- About $500
- About $1,500
- About $25,000
- About $1 million dollars
- None of the above

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