## Online Appendix—Not Intended for Publication

## A Data

Here we present a list of all measures from each study, followed, in the next subsections, by more detailed descriptions of the measures used in this paper. Screenshots of the questions used in this paper can be found in Online Appendix E. Complete design documents and screenshots can be found at eriksnowberg.com/wep.html. Names of specific measures match those given in the paper. When a measure is unused in this paper, we use descriptive names.

All Studies: In all studies and waves, YouGov provided the following background and demographic variables:

- Household income
- Education
- Employment status
- Marital status
- Year of birth
- Gender
- Race and ethnicity
- Religion
- Religious attendance
- Home ownership
- Stock ownership
- Political ideology
- Political party identification
- Political interest
- Self-reported voter registration
- Verified voter turnout in the most recent federal election

Measures for individual studies are listed in the order they appear in the design documents.

## Study 1; Waves 1 and 2:

- DOSE- $\alpha$
- DOSE- $\lambda$
- Time preferences ( $\delta$ ), estimated using DOSE
- FM
- 2L
- WTA
- WTP
- Probability equivalents of an ambiguous urn
- Lying costs
- Distributional preferences
- Giving in the dictator game
- Behavior in a trust game
- Punishment of unfair behavior
- Overconfidence and overplacement
- IQ
- Cognitive reflection test
- Qualitative risk, time, trust, altruism and reciprocity questions


## Study 2:

- FM
- 2L
- WTA
- WTP
- Gain
- Mixed
- Loss
- Urn
- Time preferences
- Certainty equivalents of an ambiguous urn
- Certainty equivalents of a compound urn
- Distributional preferences
- Giving in the dictator game
- Behavior in a trust game
- Punishment of unfair behavior
- Overconfidence and overplacement
- IQ
- Cognitive reflection test
- Qualitative risk, time, trust, altruism, and reciprocity questions
- Subjective wellbeing
- Strategic sophistication


## Study 3:

- DOSE- $\alpha$
- DOSE- $\lambda$
- FM-Mixed
- WTA
- WTP
- Gain
- Mixed
- Loss
- IQ
- Cognitive reflection test
- Qualitative risk, time, trust, altruism, and reciprocity questions
- Subjective wellbeing
- Financial shocks
- Gambling


## A. 1 WTA, WTP, and the Endowment Effect

Table A. 1 displays the details of the two lottery tickets contained in each study. Each lottery had a $50 \%$ chance of a low payoff (L), and a $50 \%$ chance of a high payoff (H).

Our within-person design and large sample size means that we can precisely characterize the extent of the endowment effect in every subgroup we consider. Tables A. 2 and A. 3 shows the percent of people in given subgroups that have an endowment effect (WTA/WTP>1), no endowment effect (WTA/WTP = 1) and a negative endowment effect (WTA/WTP $<1$ ). As can be seen, across all the subgroups in Tables 3 and B. 2 the percent that have exhibit these preferences are stable. Moreover, these subgroups, and our sample as a whole, is quite similar in terms of the prevalence of the endowment effect to the sample of students from the University of Pittsburgh.

Table A.1: Summary Statistics of WTA, WTP, and the Endowment Effect

|  | Lottery |  | TA |  | TP | WTA | WTP | WT | -WTP |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Ticket (L/H Payoff) | Avg. <br> (s.d.) | Corr. (s.e.) | Avg. <br> (s.d.) | $\begin{aligned} & \text { Corr. } \\ & \text { (s.e.) } \end{aligned}$ | Avg. <br> (s.d.) | $\begin{aligned} & \text { Corr. } \\ & \text { (s.e.) } \end{aligned}$ | Avg. <br> (s.d.) | $\begin{aligned} & \text { Corr. } \\ & \text { (s.e.) } \end{aligned}$ |
| Study 1, | 0/10,000 | $\begin{aligned} & 0.91 \\ & (.48) \end{aligned}$ | 0.71*** | $\begin{aligned} & 0.64 \\ & (.44) \end{aligned}$ | 0.74*** | $\begin{gathered} 3.24 \\ (4.64) \end{gathered}$ | 0.63*** | $\begin{aligned} & 0.27 \\ & (.67) \end{aligned}$ | 0.75*** |
| Wave 1 | 2,000/8,000 | 0.89 | (.028) | 0.70 | (.036) | 1.43 | (.04) | 0.19 | (.025) |
|  | 2,000/8,000 | (.29) |  | (.25) |  | (.71) |  | (.4) |  |
| Study 1, <br> Wave 2 | 1,000/9,000 | $\begin{aligned} & 0.86 \\ & (.44) \end{aligned}$ | 0.67*** | $\begin{aligned} & 0.63 \\ & (.43) \end{aligned}$ | 0.79*** | $\begin{gathered} 3.02 \\ (4.15) \end{gathered}$ | 0.60*** | $\begin{aligned} & 0.23 \\ & (.62) \end{aligned}$ | $\begin{gathered} 0.72^{* * *} \\ (.034) \end{gathered}$ |
|  | 2,000/8,000 | 0.86 | (.038) | 0.68 | (.024) | 1.41 | (.046) | (.37) |  |
|  |  | (.27) |  | (.24) |  | (.65) |  |  |  |
| Study 2 | 1,000/9,000 | 0.93 | $\begin{gathered} 0.70^{* * *} \\ (.036) \end{gathered}$ | 0.63 | $\begin{gathered} 0.75^{* * *} \\ (.04) \end{gathered}$ | 2.34 |  | 0.30 | $\begin{gathered} 0.75^{* * *} \\ (.029) \end{gathered}$ |
|  |  | (.47) |  | (.42) |  | (2.25) | 0.69*** | (.66) |  |
|  | 2,000/8,000 | 0.90 |  | 0.68 |  | 1.56 | (.036) | 0.22 |  |
|  |  | (.35) |  | (.29) |  | (.93) |  | (.47) |  |
| Study 3 | 1,000/9,000 | 0.91 |  | 0.73 |  | 1.91 |  | 0.18 |  |
|  |  | (.46) | 0.75*** | (.41) | 0.67*** | (1.94) | 0.72*** | (.65) | 0.72*** |
|  | 2,000/8,000 | 0.88 | (.032) | 0.73 | (.061) | 1.40 | (.054) | 0.15 | (.048) |
|  |  | (.35) |  | (.29) |  | (.85) |  | (.47) |  |

Notes: All lottery tickets have a $50 \%$ chance of a low (L) payoff and a $50 \%$ chance of a high (H) payoff. Values of WTA, WTP, and the endowment effect are expressed as percentage of the expected value of the lottery ticket. Corr. is the correlation between the two measures of each quantity within each study. ${ }^{* * *}$, ${ }^{* *}$, ${ }^{*}$ denote statistical significance at the $1 \%, 5 \%$, and $10 \%$ level, unadjusted for multiple hypotheses.

Table A.2: Existence and size of Endowment Effect, by Subgroup.

| Subgroup | $N$ | Lottery | Median WTA/WTP | Percent of Participants With WTA/WTP |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | > 1 | $=1$ | < 1 |
| Panel A: Subgroups of the General Population |  |  |  |  |  |  |
| All | 4,000 | 1 : | 1.21 | 57\% | 11\% | 31\% |
|  |  | 2 : | 1.18 | 60\% | 14\% | 27\% |
| Passed Attention Checks | 840 | 1 : | 1.18 | 58\% | 9\% | 33\% |
|  |  | 2 : | 1.12 | 56\% | 10\% | 33\% |
| Not Too Fast | 3,601 | 1 : | 1.22 | 58\% | 11\% | 31\% |
|  |  | 2 : | 1.18 | 60\% | 13\% | 27\% |
| High School or Less | 1,611 | 1: | 1.29 | 58\% | 11\% | 31\% |
|  |  | 2: | 1.21 | 61\% | 14\% | 25\% |
| Some College or College Degree | 1,996 | 1 : | 1.18 | 57\% | 12\% | 31\% |
|  |  | 2 : | 1.16 | 59\% | 13\% | 27\% |
| Advanced Degree | 393 | 1 : | 1.15 | 55\% | 11\% | 33\% |
|  |  | 2 : | 1.11 | 55\% | 12\% | 34\% |
| Income: Above Median | 1,881 | 1 : | 1.22 | 58\% | 11\% | 31\% |
|  |  | 2 : | 1.18 | 60\% | 13\% | 27\% |
| Income: Top $\sim 10 \%$ | 483 | 1: | 1.18 | 57\% | 14\% | 29\% |
|  |  | 2 : | 1.18 | 59\% | 13\% | 28\% |
| Income: Top $\sim 5 \%$ | 180 | 1 : | 1.14 | 55\% | 16\% | 29\% |
|  |  | 2 : | 1.12 | 59\% | 13\% | 29\% |
| IQ: Above Median | 2,265 | 1 : | 1.19 | 58\% | 10\% | 32\% |
|  |  | 2 : | 1.18 | 60\% | 12\% | 28\% |
| IQ: Top ~ 10\% | 424 | 1 : | 1.18 | 59\% | 11\% | 31\% |
|  |  | 2 : | 1.15 | 60\% | 11\% | 29\% |
| IQ: Top ~ 5\% | 156 | 1 : | 1.12 | 56\% | 11\% | 32\% |
|  |  | 2 : | 1.17 | 59\% | 12\% | 29\% |
| Panel B: University of Pittsburgh Students |  |  |  |  |  |  |
| All Students | 806 | 1 : | 1.37 | 56\% | 9\% | 35\% |
|  |  | 2 : | 1.22 | 59\% | 10\% | 31\% |

Table A.3: Existence and size of Endowment Effect, by Subgroup.

| Subgroup | $N$ | Lottery | Median WTA/WTP | Percent of Participants With WTA/WTP |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | > 1 | $=1$ | $<1$ |
| All | 4,000 | $1:$ | 1.21 | 57\% | 11\% | 31\% |
|  |  | 2 : | 1.18 | 60\% | 14\% | 27\% |
| Response Time: Not Fastest 25\% | 3,003 | 1 : | 1.24 | 59\% | 11\% | 31\% |
|  |  | 2 : | 1.21 | 61\% | 12\% | 27\% |
| Response Time: Not Fastest 50\% | 2,003 | 1 : | 1.26 | 59\% | 10\% | 31\% |
|  |  | 2: | 1.22 | 61\% | 12\% | 27\% |
| Response Time: Not Slowest or Fastest 10\% | 3,202 | 1 : | 1.22 | 57\% | 12\% | 31\% |
|  |  | 2 : | 1.18 | 60\% | 13\% | 27\% |
| Response Time: Not Slowest or Fastest 25\% | 2,008 | 1 : | 1.21 | 57\% | 11\% | 32\% |
|  |  | 2 : | 1.18 | 60\% | 12\% | 28\% |
| Female | 2,082 | 1 : | 1.28 | 59\% | 11\% | 30\% |
|  |  | 2 : | 1.18 | 58\% | 14\% | 27\% |
| Male | 1,918 | 1 : | 1.15 | 55\% | 11\% | 33\% |
|  |  | 2 : | 1.18 | 61\% | 12\% | 27\% |
| Age: Under 40 | 1,434 | 1 : | 1.16 | 57\% | 10\% | 32\% |
|  |  | 2 : | 1.13 | 57\% | 12\% | 30\% |
| Age: 40-60 | 1,285 | 1 : | 1.18 | 56\% | 12\% | 32\% |
|  |  | 2 : | 1.18 | 59\% | 15\% | 25\% |
| Age: Over 60 | 1,281 | 1 : | 1.34 | 59\% | 12\% | 29\% |
|  |  | 2 : | 1.24 | 62\% | 13\% | 25\% |
| CRT: No Questions Correct | 2,248 | 1: | 1.22 | 57\% | 12\% | 31\% |
|  |  | 2 : | 1.18 | 58\% | 15\% | 26\% |
| CRT: One or More Questions Correct | 1,752 | 1: | 1.18 | 57\% | 11\% | 32\% |
|  |  | 2 : | 1.18 | 61\% | 11\% | 28\% |
| CRT: All Three Questions Correct | 338 | 1: | 1.13 | 56\% | 12\% | 32\% |
|  |  | 2 : | 1.12 | 56\% | 11\% | 34\% |

## A. 2 Other Risk Measures

This subsection provides more detail regarding the elicitations of the other measures used in the paper.

Risk Measures-MPLs Eliciting Certainty Equivalents: Four risk measures were obtained using MPLs that elicited certainty equivalents.

- Gain: Elicited with two MPLs eliciting participants' certainty equivalent for a fixed lottery over gains—see Figure E.9-Figures E.10. The specific lotteries were:

1. $50 \%$ chance of winning 0 points and a $50 \%$ chance of winning 5,000 points
2. $50 \%$ chance of winning 1,000 points and a $50 \%$ chance of winning 4,000 points

- Mixed: Elicited with two MPLs eliciting participants' certainty equivalent for a fixed lottery over a gain and a loss-see Figures E.13- E.14. The specific lotteries were:

1. $50 \%$ chance of winning 5,000 points and a $50 \%$ chance of losing 5,000 points
2. $50 \%$ chance of winning 4,000 points and a $50 \%$ chance of losing 4,000 points

- Loss: Elicited with two MPLs eliciting participants' certainty equivalent for a fixed lottery over losses—see Figures E.11- E.12. The specific lotteries were:

1. $50 \%$ chance of winning 0 points and a $50 \%$ chance of losing 5,000 points
2. $50 \%$ chance of losing 1,000 points and a $50 \%$ chance of losing 4,000 points

- Urn: Two MPLs elicited participants' certainty equivalent for a fixed lottery based on drawing balls from a virtual jar. Each jar contained 50 balls of each of two colors. Participants were first asked which color ball they would prefer to be paid for. They were then presented an MPL eliciting their certainty equivalent for the lottery—see Figures E.5- E.8. The specific lotteries were:

1. $50 \%$ chance of winning 0 points and a $50 \%$ chance of winning 10,000 points
2. $50 \%$ chance of winning 0 points and a $50 \%$ chance of winning 8,000 points

Risk Measures—MPLs Eliciting Lottery Equivalents: Three risk measures were obtained using MPLs that elicited lottery equivalents.

- FM: Two MPLs offered participants a choice between a fixed prize, and a lottery with a variable prize l—see Figures E.15- E.16. Specifically, the choices were:

1. (in Study 1) 3,000 points for sure or an $80 \%$ chance of winning $l$ points and a $20 \%$ chance of winning 0 points
2. (in Study 1) 5,000 points for sure or a $75 \%$ chance of winning $l$ points and a $25 \%$ chance of winning 0 points
3. (in Study 2) 3,500 points for sure or an $80 \%$ chance of winning $l$ points and a $20 \%$ chance of winning 0 points
4. (in Study 2) 4,000 points for sure or a $75 \%$ chance of winning $l$ points and a $25 \%$ chance of winning 0 points

- 2L: Two MPLs offered participants a choice between a fixed lottery, and a lottery with a variable prize $l$ —see Figures E.17-Figures E.17. Specifically, participants were offered the following choices:

1. (in Study 1) A $25 \%$ chance of winning 3,000 points and a $75 \%$ chance of 0 points, or a $20 \%$ chance of winning $l$ points and an $80 \%$ chance of winning 0 points
2. (in Study 1) A $20 \%$ chance of winning 4,000 points and an $80 \%$ chance of 0 points, or a $15 \%$ chance of winning $l$ points and an $85 \%$ chance of winning 0 points
3. (in Study 2) A $25 \%$ chance of winning 2,500 points and a $75 \%$ chance of 0 points, or a $20 \%$ chance of winning $l$ points and an $80 \%$ chance of winning 0 points
4. (in Study 2) A $20 \%$ chance of winning 5,000 points and an $80 \%$ chance of 0 points, or a $15 \%$ chance of winning $l$ points and an $85 \%$ chance of winning 0 points

- FM-Mixed: Two MPLs offered participants a choice between a fixed prize of 0 points and a 50/50 lottery with a variable prize $l$ —see Figures E.19-Figures E.20. Specifically, participants were offered the following choices:

1. 0 points for sure or a $50 \%$ chance of $l$ points and a $50 \%$ chance of 5,000 points
2. 0 points for sure or a $50 \%$ chance of $l$ points and a $50 \%$ chance of 4,000 points

DOSE Elicitations of Risk and Loss Aversion Our first two measures of loss aversion come from Mixed and FM-Mixed, described above.

In addition, we use DOSE to elicit the parameters of a Prospect Theory utility function with power utility, assuming that participants value payments relative to a reference point of zero.

Formally:

$$
v\left(x, \alpha_{i}, \lambda_{i}\right)= \begin{cases}x^{\alpha_{i}} & \text { for } x \geq 0  \tag{1}\\ -\lambda_{i}(-x)^{\alpha_{i}} & \text { for } x<0\end{cases}
$$

in which $\lambda_{i}$ parameterizes loss aversion, $\alpha_{i}$ parameterizes risk aversion, and $x \in \mathbb{R}$ is a monetary outcome relative to the reference point. If $\lambda_{i}>1$, which is generally assumed, then the participant is loss averse. If $\lambda_{i}<1$, then the participant is loss tolerant. To make tables and figures easier to interpret, we use the coefficient of relative risk aversion, $1-\alpha_{i}$, so that higher numbers indicate greater risk aversion.

Our main estimates of DOSE- $\lambda$ and DOSE- $\alpha$ are elicited using a 10-question DOSE sequence. The DOSE procedure selects a personalized sequence of questions for each participant. The participant is given a simple explanation of the upcoming choices, as in Figure E.25. He or she is then given a series of binary choices between a lottery and a sure amount, with the sure amounts and lottery prizes chosen to maximize the informativeness of the choice for the parameters of interest, $\lambda$ and $\alpha$, given a flat prior over those parameters and the participant's previous choices-see Fig E. 26 for an example. 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. The lottery always appeared first in both types of question. For further detail on both the DOSE method in general, and the particular implementation used in our surveys, see Chapman et al. (2018).

Study 3 also contained an alternative, 20-question, DOSE sequence which included questions including only losses, in addition to the binary choices listed above. The order of the two DOSE sequences was randomized. This alternative DOSE measure is the subject of Chapman et al. (2022) and interested readers are referred there for further details.

IQ: We measure IQ using a set of six questions from the International Cognitive Ability Resource (ICAR; Condon and Revelle, 2014): three are similar to Raven's Matrices, and the other three involved rotating a shape in space.

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". $12 \%$ of participants chose not to state their income. When calculating percentiles of the income distribution, those that did not state their income are not included at all-so the participants with the top $10 \%$ of income are the top $10 \%$ among those who gave us a figure for their income.

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.

Attention Screeners: Study 3 included three questions designed to check a participant was paying attention. See Figures E.21-E. 24 for question wording.

## B Robustness of Finding 1

We provide three checks of the robustness of Finding 1—the endowment effect is unrelated to different measures of loss aversion. The first of these, Table B.1, disaggregates the results in Table 2 by study, and by lottery. We include controls for risk aversion in all specifications as the major effect of these in Table 2 and 3 is to make the coefficient on Mixed less negative. Thus, including controls for risk aversion increases the probability we may find a positive and significant relationship between our measures for loss aversion for risky prospects and the endowment effect.

When using the endowment effect for only a single lottery ticket as the dependent variable, we could use either of the measures of Mixed or FM-Mixed as the independent variable. Accordingly, in these cells we run report the specification where the coefficient on Mixed or FM-Mixed is the highest. ${ }^{1}$ The results are largely the same, although the negative relationship between Mixed and the endowment effect is more pronounced in Study 2 than Study 3.

Table B. 1 also contains an alternative DOSE- $\lambda$ measure that only exists on Study 3. This measure comes from 20, rather than 10, binary questions and is the subject of Chapman et al. (2022). As this measure was only part of one Study, we restrict its use to the Appendix, preferring the DOSE measure we have more observations for in the main text. As can be seen from Table B.1, this alternative measure of loss aversion is also not related to any of our measures of the endowment effect.

Table B. 2 presents the same six specifications as Table 3 for an additional 12 subgroups. The first four subgroups remove participants who went through the survey (very) slowly or (very) quickly, in different permutations, to show that the result of the specifications in the row labeled "Not Too Fast" in Table B. 2 are not sensitive to how one defines fast (or slow) participants. The next five columns cut the sample along two demographic lines: sex and age. In none of these subgroups is there a positive and significant correlation between the endowment effect or loss aversion for risky prospects. The final three columns segment participants according to their score on the Cognitive Reflection Test (CRT; Frederick, 2005). As noted in the text, the largest positive and statistically significant correlation in this table is for those who answered at least one CRT question correctly.

[^0]Table B.1: Relationships between the endowment effect, and loss aversion, controlling for risk aversion, separated by study and lottery.

| Dependent Variable: | WTA/WTP |  |  |  | WTA-WTP |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Lott. 1 | Lott. 2 | Avg. | ORIV | Lott. 1 | Lott. 2 | Avg. | ORIV |
| Panel A: DOSE (Study 1, Wave 1; $N=2,000$ ) |  |  |  |  |  |  |  |  |
| DOSE- $\lambda$ | $\begin{gathered} -0.07^{*} \\ (.036) \end{gathered}$ | $\begin{aligned} & -0.01 \\ & (.032) \end{aligned}$ | $\begin{aligned} & -0.02 \\ & (.018) \end{aligned}$ |  | $\begin{aligned} & -0.02 \\ & (.031) \end{aligned}$ | $\begin{gathered} 0.01 \\ (.031) \end{gathered}$ | $\begin{aligned} & -0.00 \\ & (.035) \end{aligned}$ | n.a. |
| Panel B: DOSE (Study 1, Wave 2; $N=1,465$ ) |  |  |  |  |  |  |  |  |
| DOSE- $\lambda$ | $\begin{aligned} & -0.01 \\ & (.163) \end{aligned}$ | $\begin{aligned} & -0.03 \\ & (.024) \end{aligned}$ | $\begin{aligned} & -0.01 \\ & (.052) \end{aligned}$ |  | $\begin{aligned} & -0.00 \\ & (.022) \end{aligned}$ | $\begin{aligned} & -0.01 \\ & (.014) \end{aligned}$ | $\begin{gathered} -0.01 \\ (.02) \end{gathered}$ | n.a. |


| Panel C: DOSE (Study 3; $N=1,000)$ |  |  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| DOSE- $\lambda$ | -0.03 | -0.00 | -0.01 | 0.08 | 0.06 | 0.08 | n.a. |  |
|  | $(.055)$ | $(.05)$ | $(.029)$ | $(.052)$ | $(.05)$ | $(.056)$ |  |  |

Panel D: Alternative DOSE (Study 3; $N=1,000$ )

| Alternative DOSE- $\lambda$ | $\begin{aligned} & -0.07 \\ & (.047) \end{aligned}$ | $\begin{aligned} & -0.04 \\ & (.045) \end{aligned}$ | $\begin{aligned} & -0.03 \\ & (.024) \end{aligned}$ |  | $\begin{aligned} & -0.01 \\ & (.046) \end{aligned}$ | $\begin{aligned} & -0.01 \\ & (.044) \end{aligned}$ | $\begin{aligned} & -0.01 \\ & (.049) \end{aligned}$ | n.a. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Panel E: Mixed (Study 2; $N=1,000$ ) |  |  |  |  |  |  |  |  |
| Loss Aversion (Mixed) | $\begin{gathered} -0.18^{* * * *} \\ (.043) \end{gathered}$ | $\begin{gathered} -0.16^{* * *} \\ (.041) \end{gathered}$ | $\begin{gathered} -0.11^{* * *} \\ (.025) \end{gathered}$ | $\begin{gathered} -0.35^{* * *} \\ (.121) \end{gathered}$ | $\begin{gathered} -0.16^{* * *} \\ (.04) \end{gathered}$ | $\begin{gathered} -0.12^{* * *} \\ (.043) \end{gathered}$ | $\begin{gathered} -0.17^{* * *} \\ (.05) \end{gathered}$ | $\begin{gathered} -0.33^{* * *} \\ (.112) \end{gathered}$ |

Panel F: Mixed (Study 3; $N=1,000$ )

| Loss Aversion | $-0.18^{* * *}$ | $-0.16^{* * *}$ | $-0.11^{* * *}$ | -0.11 | $-0.16^{* * *}$ | $-0.12^{* * *}$ | $-0.17^{* * *}$ | 0.02 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (Mixed) | $(.043)$ | $(.041)$ | $(.025)$ | $(.086)$ | $(.04)$ | $(.043)$ | $(.05)$ | $(.085)$ |

Panel G: FM-Mixed (Study 3; $N=1,000$ )

| Loss Aversion | -0.07 | -0.01 | -0.03 | -0.07 | 0.05 | 0.08 | 0.07 | 0.07 |
| ---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (FM-Mixed) | $(.064)$ | $(.056)$ | $(.036)$ | $(.072)$ | $(.055)$ | $(.053)$ | $(.063)$ | $(.062)$ |

Notes: ${ }^{* * *}$, **, * denote statistical significance at the $1 \%, 5 \%$, and $10 \%$ level with standard errors in parentheses. All specifications include controls for risk aversion, as in columns 2 and 4 of Table 2. DOSE measures do not have independent measurement error, so cannot be used with ORIV.

Table B.2: Relationship between the endowment effect and loss aversion, controlling for risk aversion, by subgroup.

| Loss Aversion: <br> Endowment Effect: <br> Estimation: | DOSE |  | FM-Mixed |  | Mixed |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | WTA/WTP | WTA-WTP | WTA/WTP | WTA-WTP | WTA/WTP | WTA-WTP |
|  | Regression |  | ORIV |  | ORIV |  |
| All | -0.03 | 0.02 | -0.07 | 0.07 | -0.21 *** | -0.12* |
|  | (.029) | (.027) | (.072) | (.062) | (.07) | (.067) |
|  | $N=3,000$ |  | $N=1,000$ |  | $N=2,000$ |  |
| Response Time: Not Fastest 25\% | $-0.06^{* *}$ | -0.00 | -0.03 | 0.08 | $-0.22^{* * *}$ | -0.11 |
|  | (.03) | (.029) | (.092) | (.08) | (.08) | (.078) |
|  | $N=2,253$ |  | $N=751$ |  | $N=1,501$ |  |
| Response Time: Not Fastest 50\% | -0.07* | -0.02 | -0.08 | 0.01 | $-0.28^{* * *}$ | -0.15 |
|  | (.04) | (.039) | (.114) | (.097) | (.1) | (.099) |
|  | $N=1,502$ |  | $N=501$ |  | $N=1,001$ |  |
| Response Time: Not | -0.03 | 0.02 | -0.04 | 0.08 | $-0.21^{* *}$ | -0.10 |
| Slowest or Fastest 10\% | (.032) | (.03) | (.079) | (.07) | (.085) | (.083) |
|  | $N=2,402$ |  | $N=801$ |  | $N=1,601$ |  |
| Response Time: Not | $-0.08 * *$ | -0.02 | -0.11 | 0.01 | $-0.25 * *$ | -0.13 |
| Slowest or Fastest 25\% | (.038) | (.036) | (.122) | (.106) | (.109) | (.098) |
|  | $N=1,507$ |  | $N=502$ |  | $N=1,003$ |  |
| Female | -0.03 | 0.04 | -0.06 | 0.04 | $-0.23{ }^{* *}$ | -0.10 |
|  | (.038) | (.037) | (.098) | (.085) | (.093) | (.092) |
|  | $N=1,564$ |  | $N=533$ |  | $N=1,051$ |  |
| Male | -0.02 | 0.01 | -0.05 | 0.12 | -0.19* | -0.13 |
|  | (.044) | (.038) | (.088) | (.078) | (.105) | (.106) |
|  | $N=1,436$ |  | $N=467$ |  | $N=949$ |  |
| Age: Under 40 |  |  |  |  | -0.18* | -0.09 |
|  | (.047) | (.047) | (.118) | $(.112)$ | (.104) | (.106) |
|  | $N=1,047$ |  | $N=347$ |  | $N=734$ |  |
| Age: 40-60 | 0.02 | 0.04 | -0.02 | 0.04 | -0.13 | -0.11 |
|  | (.055) | (.045) | (.066) | (.061) | (.15) | (.133) |
|  | $N=965$ |  | $N=306$ |  | $N=626$ |  |
| Age: Over 60 | -0.05 | -0.00 | -0.17 | 0.01 | $-0.27 * *$ | -0.18 |
|  | (.052) | (.043) | (.145) | (.115) | (.132) | (.114) |
|  | $N=988$ |  | $N=347$ |  | $N=640$ |  |
| CRT: No Questions | -0.05 | 0.02 | -0.12 | 0.01 | $-0.30^{* * *}$ | $-0.22^{* *}$ |
| Correct | (.043) | (.041) | (.123) | (.101) | (.094) | (.09) |
|  | $N=1,665$ |  | $N=500$ |  | $N=1,084$ |  |
| CRT: One or More | 0.04 | 0.05 | 0.06 | 0.18*** | -0.04 | 0.06 |
| Questions Correct | (.037) | (.034) | (.061) | (.063) | (.1) | (.089) |
|  | $N=1,335$ |  | $N=500$ |  | $N=916$ |  |
| CRT: All Three | 0.05 | 0.09* | 0.04 | 0.11 | 0.09 | 0.16 |
| Questions Correct | (.051) | (.052) | (.097) | (.081) | (.127) | (.13) |
|  | $N=257$ |  | $N=102$ |  | $N=183$ |  |

Notes: ${ }^{* * *}$, **, * denote statistical significance at the $1 \%, 5 \%$, and $10 \%$ level, unadjusted for multiple hypotheses, with standard errors in parentheses. Number of observations for each cell are given below standard errors, and differ because each measure is in different studies.

Table B.3: Relationship between the endowment effect (WTA/WTP) and loss aversion, without controlling for risk aversion, by subgroup.

| Loss Aversion: <br> Endowment Effect: <br> Estimation: | DOSE |  | FM-Mixed |  | Mixed |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | WTA/WTP | WTA-WTP | WTA/WTP | WTA-WTP | WTA/WTP | WTA-WTP |
|  | Regression |  | ORIV |  | ORIV |  |
| Panel A: Subgroups of the General Population |  |  |  |  |  |  |
| All | -0.03 | 0.02 | -0.07 | 0.07 | -0.40*** | $-0.38 * * *$ |
|  | (.03) | (.029) | (.075) | (.068) | (.047) | (.047) |
|  | $N=3,000$ |  | $N=1,000$ |  | $N=2,000$ |  |
| Passed Attention Checks | -0.00 | 0.08 | -0.04 | 0.08 | $-0.22^{* * *}$ | $-0.21^{* * *}$ |
|  | (.06) | (.06) | (.082) | (.07) | (.07) | (.067) |
|  | $N=840 \dagger$ |  | $N=840 \dagger$ |  | $N=840 \dagger$ |  |
| Not Too Fast | -0.03 | 0.02 | -0.01 | 0.11 | $-0.39^{* * *}$ | $-0.37^{* *}$ |
|  | (.03) | (.029) | (.08) | (.071) | (.048) | (.05) |
|  | $N=2,701$ |  | $N=900$ |  | $N=1,801$ |  |
| High School or Less | 0.01 | 0.07 | -0.15 | -0.01 | $-0.38^{* * *}$ | $-0.33^{* * *}$ |
|  | (.052) | (.05) | (.135) | (.137) | (.083) | (.086) |
|  | $N=1,199$ |  | $N=345$ |  | $N=757$ |  |
| Some College or | -0.03 | 0.01 | 0.03 | 0.16** | $-0.42^{* * *}$ | $-0.44^{* *}$ |
| College Degree | (.038) | (.034) | (.074) | (.072) | (.057) | (.057) |
|  | $N=1,495$ |  | $N=534$ |  | $N=1,035$ |  |
| Advanced Degree | -0.10* | -0.06 | 0.04 | 0.13 | $-0.27^{* * *}$ | $-0.27^{* * *}$ |
|  | (.053) | (.074) | (.112) | (.102) | (.098) | (.091) |
|  | $N=306$ |  | $N=121$ |  | $N=208$ |  |
| Income: Above Median | 0.02 | 0.05 | 0.01 | 0.13 | $-0.40^{* * *}$ | $-0.38^{* * *}$ |
|  | (.044) | (.039) | (.102) | (.088) | (.072) | (.066) |
|  | $N=1,417$ |  | $N=509$ |  | $N=972$ |  |
| Income: Top $\sim 10 \%$ | -0.07 | -0.05 | -0.11 | -0.01 | $-0.42^{* * *}$ | $-0.41^{* * *}$ |
|  | (.053) | (.061) | (.122) | (.115) | (.123) | (.129) |
|  | $N=381$ |  | $N=161$ |  | $N=263$ |  |
| Income: Top ~ 5\% | -0.04 | -0.09 | -0.33 | -0.26 | -0.46** | -0.49** |
|  | (.097) | (.1) | (.235) | (.203) | (.216) | (.197) |
|  | $N=137$ |  | $N=58$ |  | $N=102$ |  |
| IQ: Above Median | 0.02 | 0.05 | 0.02 | 0.12 | $-0.34^{* * *}$ | $-0.34^{* * *}$ |
|  | (.04) | (.04) | (.089) | (.08) | (.068) | (.064) |
|  | $N=1,713$ |  | $N=629$ |  | N = 1,182 |  |
| IQ: Top ~ 10\% | 0.12 | 0.13 | -0.04 | 0.13 | -0.24 | -0.19 |
|  | (.11) | (.087) | (.202) | (.205) | (.162) | (.17) |
|  | $N=337$ |  | $N=122$ |  | $N=209$ |  |
| IQ: Top ~ 5\% | -0.05 | 0.01 | 0.17 | 0.33* | -0.02 | -0.05 |
|  | (.047) | (.057) | (.173) | (.184) | (.118) | (.111) |
|  | $N=114$ |  | $N=47$ |  | $N=88$ |  |


| Panel B: University of Pittsburgh Students |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| All Students | $\begin{gathered} 0.01 \\ (.035) \end{gathered}$ | $\begin{gathered} 0.03 \\ (.035) \end{gathered}$ | $\begin{gathered} 0.09 \\ (.091) \end{gathered}$ | $\begin{gathered} 0.12 \\ (.083) \end{gathered}$ | $\begin{gathered} -0.11^{* *} \\ (.051) \end{gathered}$ | $\begin{gathered} -0.12^{* * *} \\ (.048) \end{gathered}$ |
|  | $N=806$ |  | $N=437$ |  | $N=806$ |  |

Notes: ${ }^{* * *},{ }^{* *}, ~ *$ denote statistical significance at the $1 \%, 5 \%$, and $10 \%$ level, unadjusted for multiple hypotheses, with standard errors in parentheses. Number of observations for each cell are given below standard errors, and differ across columns as each measure of loss aversion for risky prospects appears in different studies. $\dagger$ : Number of observations are the same, as attention checks were only present in Study 3.

Table B.4: Relationship between the endowment effect and loss aversion, without controlling for risk aversion, by subgroup.

| Loss Aversion: <br> Endowment Effect: <br> Estimation: | DOSE |  | FM-Mixed |  | Mixed |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | WTA/WTP | WTA-WTP | WTA/WTP | WTA-WTP | WTA/WTP | WTA-WTP |
|  | Regression |  | ORIV |  | ORIV |  |
| All | -0.03 | 0.02 | -0.07 | 0.07 | -0.40*** | $-0.38^{* * *}$ |
|  | (.03) | (.029) | (.075) | (.068) | (.047) | (.047) |
|  | $N=3,000$ |  | $N=1,000$ |  | $N=2,000$ |  |
| Response Time: Not Fastest 25\% | $-0.06^{* *}$ | -0.01 | -0.04 | 0.08 | $-0.39^{* * *}$ | -0.37 *** |
|  | (.03) | (.03) | (.092) | (.082) | (.054) | (.057) |
|  | $N=2,253$ |  | $N=751$ |  | $N=1,501$ |  |
| Response Time: Not Fastest 50\% | -0.08* | -0.02 | -0.06 | 0.04 | -0.42*** | $-0.40^{* * *}$ |
|  | (.039) | (.039) | (.124) | (.105) | (.059) | (.067) |
|  | $N=1,502$ |  | $N=501$ |  | $N=1,001$ |  |
| Response Time: Not | -0.03 | 0.02 | -0.04 | 0.09 | -0.40*** | $-0.39^{* * *}$ |
| Slowest or Fastest 10\% | (.032) | (.031) | (.083) | (.074) | (.05) | (.053) |
|  | $N=2,402$ |  | $N=801$ |  | $N=1,601$ |  |
| Response Time: Not | $-0.08^{* *}$ | -0.02 | -0.10 | 0.01 | -0.41*** | $-0.40^{* * *}$ |
| Slowest or Fastest 25\% | (.037) | (.036) | (.113) | (.099) | (.067) | (.071) |
|  | $N=1,507$ |  | $N=502$ |  | $N=1,003$ |  |
| Female | -0.03 | 0.04 | -0.05 | 0.06 | $-0.38{ }^{* * *}$ | $-0.34^{* * *}$ |
|  | (.039) | (.039) | (.1) | (.089) | (.06) | (.065) |
|  | $N=1,564$ |  | $N=533$ |  | $N=1,051$ |  |
| Male | -0.03 | 0.00 | -0.09 | 0.09 | -0.42*** | -0.43*** |
|  | (.046) | (.041) | (.115) | (.105) | (.071) | (.068) |
|  | $N=1,436$ |  | $N=467$ |  | $N=949$ |  |
| Age: Under 40 | -0.04 | 0.04 | -0.05 | 0.11 | -0.32*** | $-0.27^{* * *}$ |
|  | (.049) | (.054) | (.153) | (.14) | (.098) | (.098) |
|  | $N=1,047$ |  | $N=347$ |  | $N=734$ |  |
| Age: 40-60 | 0.02 | 0.04 | -0.00 | 0.08 | $-0.39^{* * *}$ | $-0.43^{* * *}$ |
|  | (.054) | (.045) | (.081) | (.076) | (.08) | (.076) |
|  | $N=965$ |  | $N=306$ |  | $N=626$ |  |
| Age: Over 60 | -0.05 | -0.01 | -0.14 | 0.04 | -0.47*** | $-0.45 * * *$ |
|  | (.051) | (.043) | (.129) | (.118) | (.066) | (.067) |
|  | $N=988$ |  | $N=347$ |  | $N=640$ |  |
| CRT: No Questions | -0.05 | 0.01 | -0.14 | -0.03 | -0.45*** | $-0.44^{* * *}$ |
| Correct | (.044) | (.043) | (.098) | (.091) | (.062) | (.063) |
|  | $N=1,665$ |  | $N=500$ |  | $N=1,084$ |  |
| CRT: One or More | 0.03 | 0.05 | 0.10 | 0.23*** | -0.29*** | $-0.27^{* * *}$ |
| Questions Correct | (.037) | (.036) | (.089) | (.088) | (.064) | (.068) |
|  | $N=1,335$ |  | $N=500$ |  | $N=916$ |  |
| CRT: All Three | 0.06 | 0.09* | 0.08 | 0.16 | -0.34*** | $-0.31^{* * *}$ |
| Questions Correct | (.053) | (.057) | (.177) | (.186) | (.126) | (.116) |
|  | $N=257$ |  | $N=102$ |  | $N=183$ |  |

Notes: ${ }^{* * *}$, **, * denote statistical significance at the $1 \%, 5 \%$, and $10 \%$ level, unadjusted for multiple hypotheses, with standard errors in parentheses. Number of observations for each cell are given below standard errors, and differ because each measure is in different studies.

However, that coefficient falls and is insignificant when considering those who answered all three CRT questions correctly.

Tables B. 3 and B. 4 presents the same specifications and subgroups as in Tables 3 and B.2, however, we omit controls for risk aversion. Results are, once again, substantially the same, except the relationship between Mixed and measures of the endowment effect are now negative for all groups, reflecting the fact that controlling for risk aversion in Table 2 mitigated the negative correlation between Mixed and the endowment effect.

## C Robustness of Finding 2

## C. 1 Subgroups

There may be substantial heterogeneity in the correlation between WTA and WTP for specific subgroups, or based on response properties. We examine the correlation between WTA and WTP for a number of subgroups in Table C.1. Correlations are examined by lottery, for the average of both lotteries, and using ORIV. To maximize statistical power, we combine Study 1, Wave 1 with Studies 2 and 3 . This gives us a total of 4,000 independent observations. ${ }^{2}$

The subgroups in Table C. 1 are the same as those in Table 3 and B.3. Like those, most need no explanation, except for "Not Too Fast," which removes those $10 \%$ of participants that completed the survey fastest. The subgroups in Table C. 2 are the same as those in Table B. 2 and Table B.4.

In almost all subgroups, correlations between WTA and WTP are small in magnitude. The exception is relatively large positive correlations among those in the Top $5 \%$ of IQ, as measured by our survey. Here, the correlation goes as high as 0.32 , although including the next $5 \%$ of participants in terms of IQ reduces the correlation to around 0.1. As with the correlation between the endowment effect and loss aversion for risky prospects, University of Pittsburgh Students have a qualitatively similar (positive, statistically significant), but quantitatively smaller, correlation between WTA and WTP as those in the Top 5\% of IQ.

Finally, we visually examine the pattern of WTA and WTP separately for each lottery ticket and survey in Figure C.1. As in Figure 3, there is no evidence of a substantial correlation throughout the range where most of the data lies (that is, WTP<0.5).

[^1]Table C.1: Correlations between WTA and WTP, by Subgroup.

| Subgroup | $N$ | Lottery 1 | Lottery 2 | ORIV | Averages |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Panel A: Subgroups of the General Population |  |  |  |  |  |
| All | 4,000 | $\begin{gathered} -0.08^{* * *} \\ (.027) \end{gathered}$ | $\begin{gathered} -0.08^{* * *} \\ (.027) \end{gathered}$ | $\begin{gathered} -0.11^{* * *} \\ (.033) \end{gathered}$ | $\begin{gathered} -0.09^{* * *} \\ (.027) \end{gathered}$ |
| Passed Attention Checks | 840 | $\begin{aligned} & -0.08 \\ & (.061) \end{aligned}$ | $\begin{aligned} & -0.07 \\ & (.055) \end{aligned}$ | $\begin{aligned} & -0.09 \\ & (.069) \end{aligned}$ | $\begin{gathered} -0.08 \\ (.06) \end{gathered}$ |
| Not Too Fast | 3,601 | $\begin{gathered} -0.07^{* * *} \\ (.028) \end{gathered}$ | $\begin{gathered} -0.08^{* * *} \\ (.027) \end{gathered}$ | $\begin{gathered} -0.11^{* * *} \\ (.034) \end{gathered}$ | $\begin{gathered} -0.08^{* * *} \\ (.027) \end{gathered}$ |
| High School or Less | 1,611 | $\begin{gathered} -0.14^{* * *} \\ (.045) \end{gathered}$ | $\begin{gathered} -0.09^{*} \\ (.049) \end{gathered}$ | $\begin{gathered} -0.16^{* * *} \\ (.06) \end{gathered}$ | $\begin{gathered} -0.13^{* * *} \\ (.047) \end{gathered}$ |
| Some College or College Degree | 1,996 | $\begin{aligned} & -0.04 \\ & (.034) \end{aligned}$ | $\begin{gathered} -0.08^{* *} \\ (.032) \end{gathered}$ | $\begin{gathered} -0.08^{*} \\ (.041) \end{gathered}$ | $\begin{gathered} -0.06^{*} \\ (.034) \end{gathered}$ |
| Advanced Degree | 393 | $\begin{aligned} & -0.01 \\ & (.065) \end{aligned}$ | $\begin{aligned} & -0.02 \\ & (.056) \end{aligned}$ | $\begin{aligned} & -0.02 \\ & (.073) \end{aligned}$ | $\begin{aligned} & -0.01 \\ & (.061) \end{aligned}$ |
| Income: Above Median | 1,881 | $\begin{aligned} & -0.03 \\ & (.033) \end{aligned}$ | $\begin{aligned} & -0.05 \\ & (.035) \end{aligned}$ | $\begin{gathered} -0.04 \\ (.04) \end{gathered}$ | $\begin{aligned} & -0.03 \\ & (.034) \end{aligned}$ |
| Income: Top $\sim 10 \%$ | 483 | $\begin{gathered} 0.08 \\ (.066) \end{gathered}$ | $\begin{gathered} 0.02 \\ (.067) \end{gathered}$ | $\begin{gathered} 0.06 \\ (.081) \end{gathered}$ | $\begin{gathered} 0.05 \\ (.068) \end{gathered}$ |
| Income: Top $\sim 5 \%$ | 180 | $\begin{aligned} & 0.20 * * \\ & (.101) \end{aligned}$ | $\begin{gathered} 0.03 \\ (.105) \end{gathered}$ | $\begin{gathered} 0.17 \\ (.118) \end{gathered}$ | $\begin{gathered} 0.16 \\ (.108) \end{gathered}$ |
| IQ: Above Median | 2,265 | $\begin{gathered} -0.07^{*} \\ (.036) \end{gathered}$ | $\begin{gathered} -0.07^{* *} \\ (.031) \end{gathered}$ | $\begin{gathered} -0.10^{* *} \\ (.039) \end{gathered}$ | $\begin{gathered} -0.08^{* *} \\ (.033) \end{gathered}$ |
| IQ: Top ~ 10\% | 424 | $\begin{gathered} 0.08 \\ (.076) \end{gathered}$ | $\begin{gathered} 0.10 \\ (.064) \end{gathered}$ | $\begin{gathered} 0.10 \\ (.089) \end{gathered}$ | $\begin{gathered} 0.09 \\ (.072) \end{gathered}$ |
| IQ: Top ~ 5\% | 156 | $\begin{gathered} 0.30^{* * *} \\ (.089) \end{gathered}$ | $\begin{aligned} & 0.23^{* *} \\ & (.089) \end{aligned}$ | $\begin{gathered} 0.32^{* * *} \\ (.106) \end{gathered}$ | $\begin{gathered} 0.26^{* * *} \\ (.092) \end{gathered}$ |


| Panel B: University of Pittsburgh Students |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| 806 | $0.09^{* *}$ | $0.13^{* * *}$ | $0.16^{* * *}$ | $0.11^{* *}$ |  |
|  |  | $(.035)$ | $(.035)$ | $(.053)$ | $(.048)$ |

Notes: ${ }^{* * *},{ }^{* *}$, * denote statistical significance at the $1 \%, 5 \%$, and $10 \%$ level, unadjusted for multiple hypotheses, with standard errors in parentheses.

Table C.2: Correlations between WTA and WTP, by Subgroup.

| Subgroup | $N$ | Lottery 1 | Lottery 2 | ORIV | Averages |
| :---: | :---: | :---: | :---: | :---: | :---: |
| All | 4,000 | $\begin{gathered} -0.08^{* * *} \\ (.027) \end{gathered}$ | $\begin{gathered} -0.08^{* * *} \\ (.027) \end{gathered}$ | $\begin{gathered} -0.11^{* * *} \\ (.033) \end{gathered}$ | $\begin{gathered} -0.09^{* * *} \\ (.027) \end{gathered}$ |
| Response Time: Not Fastest 25\% | 3,003 | $\begin{gathered} -0.09^{* * *} \\ (.031) \end{gathered}$ | $\begin{gathered} -0.09^{* * *} \\ (.03) \end{gathered}$ | $\begin{gathered} -0.12^{* * *} \\ (.037) \end{gathered}$ | $\begin{gathered} -0.10^{* * *} \\ (.03) \end{gathered}$ |
| Response Time: Not Fastest 50\% | 2,003 | $\begin{gathered} -0.14^{* * *} \\ (.039) \end{gathered}$ | $\begin{gathered} -0.12^{* * *} \\ (.037) \end{gathered}$ | $\begin{gathered} -0.18^{* * *} \\ (.048) \end{gathered}$ | $\begin{gathered} -0.15^{* * *} \\ (.037) \end{gathered}$ |
| Response Time: Not Slowest or Fastest 10\% | 3,202 | $\begin{gathered} -0.06^{* *} \\ (.029) \end{gathered}$ | $\begin{gathered} -0.07^{* *} \\ (.029) \end{gathered}$ | $\begin{gathered} -0.10^{* * *} \\ (.036) \end{gathered}$ | $\begin{gathered} -0.07^{* * *} \\ (.029) \end{gathered}$ |
| Response Time: Not Slowest or Fastest 25\% | 2,008 | $\begin{gathered} -0.08^{* *} \\ (.039) \end{gathered}$ | $\begin{gathered} -0.11^{* * *} \\ (.035) \end{gathered}$ | $\begin{gathered} -0.15^{* * *} \\ (.046) \end{gathered}$ | $\begin{gathered} -0.12^{* * *} \\ (.037) \end{gathered}$ |
| Female | 2,082 | $\begin{gathered} -0.06^{*} \\ (.035) \end{gathered}$ | $\begin{aligned} & -0.05 \\ & (.037) \end{aligned}$ | $\begin{gathered} -0.07^{*} \\ (.044) \end{gathered}$ | $\begin{gathered} -0.06 * \\ (.035) \end{gathered}$ |
| Male | 1,918 | $\begin{gathered} -0.11^{* * *} \\ (.041) \end{gathered}$ | $\begin{gathered} -0.11^{* * *} \\ (.039) \end{gathered}$ | $\begin{gathered} -0.16^{* * *} \\ (.05) \end{gathered}$ | $\begin{gathered} -0.13^{* * *} \\ (.041) \end{gathered}$ |
| Age: Under 40 | 1,434 | $\begin{gathered} -0.18^{* * *} \\ (.05) \end{gathered}$ | $\begin{gathered} -0.21^{* * *} \\ (.048) \end{gathered}$ | $\begin{gathered} -0.27^{* * *} \\ (.064) \end{gathered}$ | $\begin{gathered} -0.22^{* * *} \\ (.049) \end{gathered}$ |
| Age: 40-60 | 1,285 | $\begin{aligned} & -0.02 \\ & (.046) \end{aligned}$ | $\begin{gathered} 0.04 \\ (.047) \end{gathered}$ | $\begin{gathered} 0.00 \\ (.055) \end{gathered}$ | $\begin{aligned} & -0.00 \\ & (.045) \end{aligned}$ |
| Age: Over 60 | 1,281 | $\begin{aligned} & -0.05 \\ & (.038) \end{aligned}$ | $\begin{gathered} -0.07^{*} \\ (.04) \end{gathered}$ | $\begin{aligned} & -0.08^{*} \\ & (.047) \end{aligned}$ | $\begin{aligned} & -0.05 \\ & (.039) \end{aligned}$ |
| CRT: No Questions Correct | 2,248 | $\begin{gathered} -0.15^{* * *} \\ (.035) \end{gathered}$ | $\begin{gathered} -0.12^{* * *} \\ (.038) \end{gathered}$ | $\begin{gathered} -0.18^{* * *} \\ (.044) \end{gathered}$ | $\begin{gathered} -0.15^{* * *} \\ (.036) \end{gathered}$ |
| CRT: One or More Questions Correct | 1,752 | $\begin{gathered} 0.04 \\ (.038) \end{gathered}$ | $\begin{aligned} & -0.00 \\ & (.035) \end{aligned}$ | $\begin{gathered} 0.03 \\ (.045) \end{gathered}$ | $\begin{gathered} 0.03 \\ (.037) \end{gathered}$ |
| CRT: All Three Questions Correct | 338 | $\begin{aligned} & 0.10 \\ & (.07) \end{aligned}$ | $\begin{gathered} 0.01 \\ (.075) \end{gathered}$ | $\begin{gathered} 0.07 \\ (.089) \end{gathered}$ | $\begin{gathered} 0.06 \\ (.072) \end{gathered}$ |

Notes: ${ }^{* * *},{ }^{* *}, ~ *$ denote statistical significance at the $1 \%, 5 \%$, and $10 \%$ level, unadjusted for multiple hypotheses, with standard errors in parentheses.

Figure C.1: Summary of WTA and WTP data by Lottery and Study.


Notes: Scatter plot of choices of all participants in a given study, by lottery, with a small amount of jitter added. Lotteries and studies are described in Table A.1, note that Lottery 2 in Study 1 was different from Study 2 and 3, and contained a different range of choices.

## C. 2 Prior Studies

In order to examine the correlation between WTA and WTP, one needs a within-participant design. A few studies have collected such data, and by collecting and examining this data we can see the extent to which our results are consistent with those of prior studies.

We are aware of two studies that report a correlation between WTA and WTP. Borges and Knetsch (1998) elicited valuations for the purchasing and selling "Scratch and Win" tickets issued by the British Columbia Lottery Corporation, and reports a correlation of 0.24 with $N=45$. They also report a correlation of 0.35 between the WTA and WTP for a lottery with $N=28$, using data from Kachelmeier and Shehata (1992). Brown et al. (2017) elicits valuations for two hypothetical annuities, and finds negative correlations between WTA and WTP of -0.11 and -0.15 . We perform a meta-analysis of five laboratory studies $(N=790)$, finding an average correlation-weighted by the number of participants in each study-of 0.13 . This correlation is about the same size as in our representative surveys, but with the opposite sign. The meta-analysis includes all studiesreported in Table C.3-that use within-person incentivized measures of WTA and WTP for lotteries and which have data available. ${ }^{3}$ The percentage of participants expressing a negative endowment effect-around $25 \%$-is also quite similar to what we observe in our data (see Appendix Table A.2).

Although the average correlation across all studies is similar in magnitude to our studies, the correlations vary considerably across studies and lotteries, as shown in Table C.3. ${ }^{4}$ This is perhaps unsurprising given that these prior studies are much smaller, and use a range of participant pools and methodologies. The first four studies in the table use the BDM method (Becker, DeGroot, and Marschak, 1964) to elicit WTA and WTP for several lotteries. The fifth study used a median-price auction, repeated six times for two lotteries, with the price posted after each round. This lead to the largest and most statistically significant correlations in the table, likely because averaging across six rounds reduced measurement error substantially. However, it is also worth noting that the correlation in each round was substantially lower than the average, and was relatively stable across

[^2]Table C.3: The correlation between WTA and WTP for lotteries over gains is limited in prior studies.

| Group | Lottery | Correlation | WTA |  |
| :--- | :---: | :---: | :---: | :---: |
|  |  |  |  |  |

Notes: ${ }^{* * *},{ }^{* *},{ }^{*}$ denote statistical significance at the $1 \%, 5 \%$, and $10 \%$ level. Correlations with standard errors in parentheses. Lotteries are denoted by probabilities of each prize times the size of the prize, separated by $\oplus$. Average correlations are estimated using individual-level averages of WTA and WTP across all lotteries.
rounds. ${ }^{5}$ The proportion with a negative endowment effect was also very stable across rounds. This indicates that these features are unlikely to be due to "mistakes."

## D Cautious Utility Example

We now provide an example of a distribution of utilities in the Cautious Utility model such that loss aversion for risky prospects is independent of the endowment effect for lottery tickets.

For all $a, \lambda \in \mathbb{R}_{++}$, define $u_{a, \lambda}$ as $u_{a, \lambda}(x)=x^{a}$ if $x>0$ and $u_{a, \lambda}(x)=-\lambda(-x)^{a}$ if $x<0$. Consider an individual who follows Cautious Utility with set $\mathcal{W}=\left\{u_{\frac{1}{2}, 2}, u_{\frac{1}{2}, \frac{1}{2}}, u_{\frac{1}{4}, 4}, u_{\frac{1}{4}, \frac{1}{4}}\right\}$. As $u_{\frac{1}{2}, 2}$ and $u_{\frac{1}{2}, \frac{1}{2}}$, and $u_{\frac{1}{4}, 4}$ and $u_{\frac{1}{4}, \frac{1}{4}}$, are specular, it is easy to see that the set $\mathcal{W}$ is odd (as defined in Cerreia-Vioglio, Dillenberger, and Ortoleva, 2021).

Endowment Effect for Lottery Tickets. Consider, as in Section 2, a lottery ticket that pays $h$ and 0 with equal probability. ${ }^{6}$ WTP solves $0 \sim \frac{1}{2}(h-$ WTP $)+\frac{1}{2}(-$ WTP $)$, implying for a given $u_{a, \lambda}$, $0=\frac{1}{2} u_{a, \lambda}(h-\mathrm{WTP})+\frac{1}{2} u_{a, \lambda}(-\mathrm{WTP})$. Thus, for a fixed $u_{a, \lambda}, \mathrm{WTP}=h /\left(2+\lambda^{\frac{1}{a}}\right)$. In Cautious Utility, an individual's WTP is smallest of the WTPs implied by the utilities in the set $\mathcal{W}$ (Cerreia-Vioglio, Dillenberger, and Ortoleva, 2021, Prop. 2), implying

$$
\mathrm{WTP}=\min _{\mathcal{W}}\left\{\frac{h}{2+\lambda^{\frac{1}{a}}}\right\} .
$$

It follows that the utility relevant for WTP is the one corresponding to the greatest $\lambda^{\frac{1}{a}}$, which in the set $\mathcal{W}$ is given by $u_{\frac{1}{4}, 4}$.

WTA solves instead $0 \sim \frac{1}{2}(\mathrm{WTA}-h)+\frac{1}{2}(\mathrm{WTA})$. For a given $u_{a, \lambda}$, this implies $0=\frac{1}{2} u_{a, \lambda}(\mathrm{WTA}-$ $h)+\frac{1}{2} u(\mathrm{WTA})$, thus $y=h /\left(2+\lambda^{-\frac{1}{a}}\right)$. The individual WTA is the largest of WTAs implied by members of set $\mathcal{W}$ (Cerreia-Vioglio, Dillenberger, and Ortoleva, 2021, Prop. 2), implying

$$
\mathrm{WTA}=\max _{\mathcal{W}}\left\{\frac{h}{2+\lambda^{-\frac{1}{a}}}\right\}
$$

It follows that the utility relevant for WTA is the one corresponding to the lowest $\lambda^{-\frac{1}{a}}$, which, in the set $\mathcal{W}$ is once again given by $u_{\frac{1}{4}, 4}$. Thus, both WTA and WTP are calculated according to $u_{\frac{1}{4}, 4}$.

[^3]Loss Aversion for Risky Lotteries. Similarly, consider the Mixed measure of loss aversion for risky prospects used in the paper. In Cautious utility this will be the $y$ such that $y \sim \frac{1}{2}(x)+\frac{1}{2}(-x)$ for some $x$-which is either 4,000 or 5,000. Under cautious utility, $y$ will be the smallest $y$ under the four utilities in $\mathcal{W}$. Evaluating according to $u_{\alpha, \lambda}$, if $\lambda>1$, then $y<0$ and we have

$$
-\lambda(-y)^{\alpha}=\frac{1}{2} x^{\alpha}-\frac{1}{2} \lambda x^{\alpha},
$$

while if $\lambda<1$

$$
y^{\alpha}=\frac{1}{2} x^{\alpha}-\frac{1}{2} \lambda x^{\alpha}>0 .
$$

Thus, the smallest $y$ will be when $\lambda>1$, and in this case we obtain

$$
y=-x\left(\frac{\lambda-1}{2 \lambda}\right)^{\frac{1}{\alpha}} .
$$

The smallest $y$ thus corresponds to the highest value of $\left(\frac{\lambda-1}{2 \lambda}\right)^{\frac{1}{\alpha}}$. Amongst the utilities in $\mathcal{W}=$ $\left\{u_{\frac{1}{2}, 2}, u_{\frac{1}{2}, \frac{1}{2}}, u_{\frac{1}{4}, 4}, u_{\frac{1}{4}, \frac{1}{4}}\right\}$, this is the case for $u_{\frac{1}{2}, 2}$.

Independent Endowment Effect for Lottery Tickets, and Loss Aversion for Risky Prospects. Intuitively, in the example above we have distinct utilities responsible for the Endowment Effect and Loss Aversion for Risky Prospects. From this, it is easy to see that these two behaviors can be independent as long as the distribution of these pairs of utilities is independent. For example, consider a population in which each individual has a set of four utilities $\mathcal{W}=\left\{u_{a_{1}, \lambda_{1}}, u_{a_{1}, \frac{1}{\lambda_{1}}}, u_{a_{2}, \frac{1}{\lambda_{2}}}, u_{a_{2}, \lambda_{2}}\right\}$. If $\left(a_{1}, \lambda_{1}\right)$ are drawn from a distribution centered around $\left(\frac{1}{2}, 2\right)$ independently from $\left(a_{2}, \lambda_{2}\right)$, drawn from a distribution centered around ( $\frac{1}{4}, 4$ ). Then, the endowment effect is independent from loss aversion for risky prospects as long as both distributions have low enough variance.

## E Screenshots

Descriptions of the WTA and WTP questions, as drawn from our design documents, are shown in the text. Here, we display screenshots of the WTA and WTP questions from Study 2. Complete

Figure E.1: WTA, Lottery 1

## YouGov

For this question, you are given a lottery ticket that has a $\mathbf{5 0 \%}$ chance of paying you 9,000 points, and a 50\% chance of paying you 1,000 points.

You have two options for this lottery ticket:

1. Keep it or
2. Sell it for a certain amount of points (for example, 3,000 points)

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

| $\checkmark$ | The lottery ticket | or |  | Sell it for 0 points |
| :---: | :---: | :---: | :---: | :---: |
| $\square$ | The lottery ticket | or | $\square$ | Sell it for 1,000 points |
| $\square$ | The lottery ticket | or | $\square$ | Sell it for 2,000 points |
| $\square$ | The lottery ticket | or | $\square$ | Sell it for 2,500 points |
| $\square$ | The lottery ticket | or |  | Sell it for 3,000 points |
| $\square$ | The lottery ticket | or | $\square$ | Sell it for 3,250 points |
| $\square$ | The lottery ticket | or |  | Sell it for 3,500 points |
| $\square$ | The lottery ticket | or |  | Sell it for 3,750 points |
| $\square$ | The lottery ticket | or |  | Sell it for 4,000 points |
| $\square$ | The lottery ticket | or |  | Sell it for 4,250 points |
| $\square$ | The lottery ticket | or |  | Sell it for 4,500 points |
| $\square$ | The lottery ticket | or |  | Sell it for 4,750 points |
| $\square$ | The lottery ticket | or |  | Sell it for 5,000 points |
| $\square$ | The lottery ticket | or |  | Sell it for 5,250 points |
| $\square$ | The lottery ticket | or |  | Sell it for 5,500 points |
| $\square$ | The lottery ticket | or |  | Sell it for 6,000 points |
| $\square$ | The lottery ticket | or |  | Sell it for 7,000 points |
| $\square$ | The lottery ticket | or |  | Sell it for 8,000 points |
| $\square$ | The lottery ticket | or |  | Sell it for 9,000 points |
|  | The lottery ticket | or | $\checkmark$ | Sell it for 10,000 points |

Autofill

Review the instructions

Figure E.2: WTA, Lottery 2

## YouGov

For this question, you are given a lottery ticket that has a $50 \%$ chance of paying you 8,000 points, and a $\mathbf{5 0 \%}$ chance of paying you 2,000 points.

You have two options for this lottery:

1. Keep it
2. Sell it for a certain amount of points (for example, 3,000 points)

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

| $\checkmark$ The lottery ticket | or | $\square$ | Sell it for 1,500 points |
| :---: | :---: | :---: | :---: |
| $\square$ The lottery ticket | or | - | Sell it for 2,000 points |
| $\square$ The lottery ticket | or |  | Sell it for 2,500 points |
| The lottery ticket | or |  | Sell it for 3,000 points |
| The lottery ticket | or |  | Sell it for 3,250 points |
| The lottery ticket | or |  | Sell it for 3,500 points |
| The lottery ticket | or |  | Sell it for 3,750 points |
| The lottery ticket | or |  | Sell it for 4,000 points |
| The lottery ticket | or |  | Sell it for 4,250 points |
| v The lottery ticket | or |  | Sell it for 4,500 points |
| The lottery ticket | or | $\checkmark$ | Sell it for 4,750 points |
| $\square$ The lottery ticket | or |  | Sell it for 5,000 points |
| $\square$ The lottery ticket | or |  | Sell it for 5,250 points |
| $\square$ The lottery ticket | or |  | Sell it for 5,500 points |
| $\square$ The lottery ticket | or |  | Sell it for 6,000 points |
| $\square$ The lottery ticket | or |  | Sell it for 7,000 points |
| $\square$ The lottery ticket | or |  | Sell it for 8,000 points |
| $\square$ The lottery ticket | or | $\checkmark$ | Sell it for 9,000 points |

## Reset

Autofill

Review the instructions

Figure E.3: WTP, Lottery 1

## YouGov

For this question, you have been given $\mathbf{1 0 , 0 0 0}$ points. You will be offered the opportunity to exchange some of these points for a lottery ticket. This lottery ticket has a $50 \%$ chance of paying you 9,000 points, and a $50 \%$ chance of paying 1,000 points.

For example, if you choose to pay 2,000 points for a lottery ticket, and this question is chosen for payment, you will:

- Pay 2,000 points for the lottery ticket
- Keep 8,000 points for yourself
- Earn whatever proceeds you get from the lottery ticket (if any)

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

| $\checkmark$ | Keep 10,000 points | or | Buy the lottery ticket for 10,000 points and keep the remaining 0 points |
| :---: | :---: | :---: | :---: |
| $\square$ | Keep 10,000 points | or | Buy the lottery ticket for 9,000 points and keep the remaining 1,000 points |
| $\square$ | Keep 10,000 points | or | Buy the lottery ticket for 8,000 points and keep the remaining 2,000 points |
| $\square$ | Keep 10,000 points | or | $\square$ Buy the lottery ticket for 7,000 points and keep the remaining 3,000 points |
| $\square$ | Keep 10,000 points | or | $\square$ Buy the lottery ticket for 6,000 points and keep the remaining 4,000 points |
| $\square$ | Keep 10,000 points | or | $\square$ Buy the lottery ticket for 5,500 points and keep the remaining 4,500 points |
| $\square$ | Keep 10,000 points | or | $\square$ Buy the lottery ticket for 5,250 points and keep the remaining 4,750 points |
| $\square$ | Keep 10,000 points | or | $\square$ Buy the lottery ticket for 5,000 points and keep the remaining 5,000 points |
|  | Keep 10,000 points | or | $\square$ Buy the lottery ticket for 4,750 points and keep the remaining 5,250 points |
| $\square$ | Keep 10,000 points | or | $\square$ Buy the lottery ticket for 4,500 points and keep the remaining 5,500 points |
|  | Keep 10,000 points | or | $\square$ Buy the lottery ticket for 4,250 points and keep the remaining 5,750 points |
| $\square$ | Keep 10,000 points | or | $\square$ Buy the lottery ticket for 4,000 points and keep the remaining 6,000 points |
| $\square$ | Keep 10,000 points | or | $\square$ Buy the lottery ticket for 3,750 points and keep the remaining 6,250 points |
|  | Keep 10,000 points | or | $\square$ Buy the lottery ticket for 3,500 points and keep the remaining 6,500 points |
| $\square$ | Keep 10,000 points | or | $\square$ Buy the lottery ticket for 3,250 points and keep the remaining 6,750 points |
|  | Keep 10,000 points | or | Buy the lottery ticket for 3,000 points and keep the remaining 7,000 points |
|  | Keep 10,000 points | or | $\square$ Buy the lottery ticket for 2,500 points and keep the remaining 7,500 points |
|  | Keep 10,000 points | or | $\square$ Buy the lottery ticket for 2,000 points and |

Figure E.4: WTP, Lottery 2

## YouGov

For this question, you have been given 9,000 points. You will be offered the opportunity to exchange some of these points for a lottery ticket. This lottery ticket has a $\mathbf{5 0 \%}$ chance of paying you $\mathbf{8 , 0 0 0}$ points, and a $\mathbf{5 0 \%}$ chance of paying $\mathbf{2 , 0 0 0}$ points.

For example, if you choose to pay 3,000 points for a lottery ticket, and this question is chosen for payment, you will:

- Pay 3,000 points for the lottery ticket
- Keep 6,000 points for yourself
- Earn whatever proceeds you get from the lottery ticket (if any)

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

| v | Keep 9,000 points | or | Buy the lottery ticket for 9,000 points and keep the remaining 0 points |
| :---: | :---: | :---: | :---: |
| $\square$ | Keep 9,000 points | or | $\square$ Buy the lottery ticket for 8,000 points and keep the remaining 1,000 points |
| $\square$ | Keep 9,000 points | or | $\square$ Buy the lottery ticket for 7,000 points and keep the remaining 2,000 points |
| [ | Keep 9,000 points | or | $\square$ Buy the lottery ticket for 6,000 points and keep the remaining 3,000 points |
| $\square$ | Keep 9,000 points | or | $\square$ Buy the lottery ticket for 5,500 points and keep the remaining 3,500 points |
| $\square$ | Keep 9,000 points | or | $\square$ Buy the lottery ticket for 5,250 points and keep the remaining 3,750 points |
| $\square$ | Keep 9,000 points | or | $\square$ Buy the lottery ticket for 5,000 points and keep the remaining 4,000 points |
|  | Keep 9,000 points | or | $\square$ Buy the lottery ticket for 4,750 points and keep the remaining 4,250 points |
| $\square$ | Keep 9,000 points | or | $\square$ Buy the lottery ticket for 4,500 points and keep the remaining 4,500 points |
|  | Keep 9,000 points | or | $\square$ Buy the lottery ticket for 4,250 points and keep the remaining 4,750 points |
| $\square$ | Keep 9,000 points | or | $\square$ Buy the lottery ticket for 4,000 points and keep the remaining 5,000 points |
|  | Keep 9,000 points | or | $\square$ Buy the lottery ticket for 3,750 points and keep the remaining 5,250 points |
|  | Keep 9,000 points | or | $\square$ Buy the lottery ticket for 3,500 points and keep the remaining 5,500 points |
|  | Keep 9,000 points | or | $\square$ Buy the lottery ticket for 3,250 points and keep the remaining 5,750 points |
| $\square$ | Keep 9,000 points | or | $\square$ Buy the lottery ticket for 3,000 points and keep the remaining 6,000 points |
|  | Keep 9,000 points | or | $\square$ Buy the lottery ticket for 2,500 points and keep the remaining 6,500 points |
| $\square$ | Keep 9,000 points | or | $\square$ Buy the lottery ticket for 2,000 points and keep the remaining 7,000 points |
|  | Keep 9,000 points | or | $\checkmark$ Buy the lottery ticket for 1,500 points and |

Figure E.5: Selecting Color that pays off, Urn, Lottery 1

## YouGov

## Section 11 of 16

This section asks you to make choices that depend on drawing balls from a large, virtual jar. The jar contains 100 balls, 50 of which are blue and 50 of which are brown.

Which color would you prefer to be paid $\mathbf{1 0 , 0 0 0}$ points for (if it is drawn from the large jar)? Note that this means you will be paid 0 points if the other color is drawn.
( Blue
design documents are available at eriksnowberg.com/wep.html.

Figure E.6: Urn, Lottery 1

## YouGov

You have chosen to be paid $\mathbf{1 0 , 0 0 0}$ points if a brown ball is drawn and $\mathbf{0}$ points if a blue ball is drawn.
For each row in the table below, which option would you prefer?

|  | A draw from the jar with 50 blue balls and 50 brown balls | or |  | -1,000 points |
| :---: | :---: | :---: | :---: | :---: |
|  | A draw from the jar with 50 blue balls and 50 brown balls | or |  | 0 points |
|  | A draw from the jar with 50 blue balls and 50 brown balls | or | $\square$ | 1,000 points |
|  | A draw from the jar with 50 blue balls and 50 brown balls | or | $\square$ | 2,000 points |
|  | A draw from the jar with 50 blue balls and 50 brown balls | or | $\square$ | 2,500 points |
|  | A draw from the jar with 50 blue balls and 50 brown balls | or | $\square$ | 3,000 points |
|  | A draw from the jar with 50 blue balls and 50 brown balls | or | $\square$ | 3,250 points |
|  | A draw from the jar with 50 blue balls and 50 brown balls | or | $\square$ | 3,500 points |
|  | A draw from the jar with 50 blue balls and 50 brown balls | or | $\square$ | 3,750 points |
|  | A draw from the jar with 50 blue balls and 50 brown balls | or | $\square$ | 4,000 points |
|  | A draw from the jar with 50 blue balls and 50 brown balls | or | $\square$ | 4,250 points |
|  | A draw from the jar with 50 blue balls and 50 brown balls | or | $\square$ | 4,500 points |
|  | A draw from the jar with 50 blue balls and 50 brown balls | or | $\square$ | 4,750 points |
|  | A draw from the jar with 50 blue balls and 50 brown balls | or | $\square$ | 5,000 points |
|  | A draw from the jar with 50 blue balls and 50 brown balls | or | $\square$ | 5,250 points |
|  | A draw from the jar with 50 blue balls and 50 brown balls | or | $\square$ | 5,500 points |
|  | A draw from the jar with 50 blue balls and 50 brown balls | or | $\square$ | 6,000 points |
|  | A draw from the jar with 50 blue balls and 50 brown balls | or | $\square$ | 8,000 points |
|  | A draw from the jar with 50 blue balls and 50 brown balls | or | $\square$ | 10,000 points |
|  | A draw from the jar with 50 blue | or |  | 12,000 points |

Figure E.7: Selecting Color that pays off, Urn, Lottery 2

## YouGov

This section asks you to make choices that depend on drawing balls from another different large, virtual jar. The jar contains 100 balls, 50 of which are orange and 50 of which are white.

Which color would you prefer to be paid $\mathbf{8 , 0 0 0}$ points for (if it is drawn from the large jar)? Note that this means you will be paid 0 points if the other color is drawn.

- Orange
(.) White

Figure E.8: Urn, Lottery 2

## YouGov

## You have chosen to be paid 8,000 points if a white ball is drawn and 0 points if a orange ball is drawn.

For each row in the table below, which option would you prefer?
v A draw from the jar with 50 orange or balls and 50 white balls
$\square$ A draw from the jar with 50 orange balls and 50 white balls

A draw from the jar with 50 orange balls and 50 white balls
$\square$ A draw from the jar with 50 orange balls and 50 white balls
$\square$ A draw from the jar with 50 orange balls and 50 white balls
$\square$ A draw from the jar with 50 orange balls and 50 white balls
$\square$ A draw from the jar with 50 orange balls and 50 white balls
$\square$ A draw from the jar with 50 orange balls and 50 white balls

A draw from the jar with 50 orange balls and 50 white balls
$\square$ A draw from the jar with 50 orange balls and 50 white balls
$\square$ A draw from the jar with 50 orange balls and 50 white balls
$\square$ A draw from the jar with 50 orange balls and 50 white balls
$\square$ A draw from the jar with 50 orange balls and 50 white balls
$\square$ A draw from the jar with 50 orange balls and 50 white balls
$\square$ A draw from the jar with 50 orange balls and 50 white balls
$\square$ A draw from the jar with 50 orange balls and 50 white balls
$\square$ A draw from the jar with 50 orange balls and 50 white balls

A draw from the jar with 50 orange balls and 50 white balls
or
or
or
or
or $\square$ 2,500 points
or $\square$ 2,750 points
or
or
or
or
or
or $\square 4,250$ points
or
or
or
or
or
or

Figure E.9: Gain, Lottery 1

## YouGov

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

| $\checkmark$ 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 | $\square$ | 0 points |
| A 50\% chance of 5,000 points, and a $50 \%$ chance of 0 points | or | $\square$ | 500 points |
| A 50\% chance of 5,000 points, and a $50 \%$ chance of 0 points | or | $\checkmark$ | 1,000 points |
| A 50\% chance of 5,000 points, and a $50 \%$ chance of 0 points | or | $\checkmark$ | 1,250 points |
| A 50\% chance of 5,000 points, and a $50 \%$ chance of 0 points | or | $\checkmark$ | 1,500 points |
| A 50\% chance of 5,000 points, and a $50 \%$ chance of 0 points | or | $\checkmark$ | 1,750 points |
| A 50\% chance of 5,000 points, and a $50 \%$ chance of 0 points | or | $\checkmark$ | 2,000 points |
| A 50\% chance of 5,000 points, and a $50 \%$ chance of 0 points | or | $\checkmark$ | 2,250 points |
| A 50\% chance of 5,000 points, and a $50 \%$ chance of 0 points | or | $v$ | 2,500 points |
| A 50\% chance of 5,000 points, and a $50 \%$ chance of 0 points | or | $v$ | 2,750 points |
| A 50\% chance of 5,000 points, and a $50 \%$ chance of 0 points | or | $\checkmark$ | 3,000 points |
| A 50\% chance of 5,000 points, and a $50 \%$ chance of 0 points | or | $\checkmark$ | 3,250 points |
| A 50\% chance of 5,000 points, and a $50 \%$ chance of 0 points | or | $\checkmark$ | 3,500 points |
| A 50\% chance of 5,000 points, and a $50 \%$ chance of 0 points | or | $\checkmark$ | 3,750 points |
| A 50\% chance of 5,000 points, and a $50 \%$ chance of 0 points | or | $\checkmark$ | 4,000 points |
| A 50\% chance of 5,000 points, and a $50 \%$ chance of 0 points | or | $\checkmark$ | 4,500 points |
| A 50\% chance of 5,000 points, and a $50 \%$ chance of 0 points | or | $\checkmark$ | 5,000 points |
| A 50\% chance of 5,000 points, and a $50 \%$ chance of 0 points | or | $\checkmark$ | 5,500 points |

Figure E.10: Gain, Lottery 2

## YouGov

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 | $\square$ | 1,000 points |
| $\square$ A $50 \%$ chance of 4,000 points, and a $50 \%$ chance of 1,000 points | or | $\checkmark$ | 1,400 points |
| $\square$ A $50 \%$ chance of 4,000 points, and a $50 \%$ chance of 1,000 points | or | $\checkmark$ | 1,600 points |
| A $50 \%$ chance of 4,000 points, and a $50 \%$ chance of 1,000 points | or | $\checkmark$ | 1,800 points |
| A $50 \%$ chance of 4,000 points, and a $50 \%$ chance of 1,000 points | or | $\checkmark$ | 2,000 points |
| A $50 \%$ chance of 4,000 points, and a $50 \%$ chance of 1,000 points | or | $\checkmark$ | 2,200 points |
| A 50\% chance of 4,000 points, and a $50 \%$ chance of 1,000 points | or | $\checkmark$ | 2,400 points |
| A 50\% chance of 4,000 points, and a $50 \%$ chance of 1,000 points | or | $\checkmark$ | 2,600 points |
| A $50 \%$ chance of 4,000 points, and a $50 \%$ chance of 1,000 points | or | $\checkmark$ | 2,800 points |
| $\square$ A $50 \%$ chance of 4,000 points, and a $50 \%$ chance of 1,000 points | or | $\checkmark$ | 3,000 points |
| A $50 \%$ chance of 4,000 points, and a $50 \%$ chance of 1,000 points | or | $\checkmark$ | 3,200 points |
| $\square$ A $50 \%$ chance of 4,000 points, and a $50 \%$ chance of 1,000 points | or | $\checkmark$ | 3,400 points |
| A $50 \%$ chance of 4,000 points, and a $50 \%$ chance of 1,000 points | or | $\checkmark$ | 3,600 points |
| A 50\% chance of 4,000 points, and a $50 \%$ chance of 1,000 points | or | $\checkmark$ | 4,000 points |
| A $50 \%$ chance of 4,000 points, and a $50 \%$ chance of 1,000 points | or | $\checkmark$ | 4,600 points |

Figure E.11: Loss, Lottery 1
YouGov

For each row in the table below, which option would you prefer?
$\checkmark$ A 50\% chance of losing 5,000 points, and a $50 \%$ chance of losing 0 points
$\square$ A 50\% chance of losing 5,000 points, and a $50 \%$ chance of losing 0 points
$\square$ A $50 \%$ chance of losing 5,000 points, and a $50 \%$ chance of losing 0 points
$\square$ A $50 \%$ chance of losing 5,000 points, and a $50 \%$ chance of losing 0 points
$\square$ A $50 \%$ chance of losing 5,000
points, and a $50 \%$ chance of losing 0 points
$\square$ A $50 \%$ chance of losing 5,000 points, and a $50 \%$ chance of losing 0 points
$\square$ A $50 \%$ chance of losing 5,000 points, and a $50 \%$ chance of losing 0 pointsA 50\% chance of losing 5,000
points, and a $50 \%$ chance of losing 0 pointsA 50\% chance of losing 5,000
points, and a $50 \%$ chance of losing 0 points

- A 50\% chance of losing 5,000
points, and a $50 \%$ chance of losing 0 points
$\square$ A 50\% chance of losing 5,000 points, and a $50 \%$ chance of losing 0 points
$\square$ A $50 \%$ chance of losing 5,000
points, and a $50 \%$ chance of losing 0 pointsA 50\% chance of losing 5,000 points, and a $50 \%$ chance of losing 0 pointsA 50\% chance of losing 5,000
points, and a $50 \%$ chance of losing 0 points
$\square$ A $50 \%$ chance of losing 5,000 points, and a $50 \%$ chance of losing 0 points
$\square$ A $50 \%$ chance of losing 5,000 points, and a $50 \%$ chance of losing 0 points
or Losing 5,500 points
or $\quad$ Losing 5,000 points
or Losing 4,500 points
or $\square$ Losing 4,000 points
or $\square$ Losing 3,750 points
or $\square$ Losing 3,500 points
or $\square$ Losing 3,250 points
or $\quad$ Losing 3,000 points
or $\square$ Losing 2,750 points
or $\quad$ Losing 2,500 points
or $\quad \square$ Losing 2,250 points
or $\quad$ Losing 2,000 points
or $\square$ Losing 1,750 points
or $\square$ Losing 1,500 points
or $\quad$ Losing 1,000 points
or $\square$ Losing 500 points

Figure E.12: Loss, Lottery 2
YouGov

For each row in the table below, which option would you prefer?
$\checkmark$ A 50\% chance of losing 5,000 points, and a $50 \%$ chance of losing 0 points
$\square$ A 50\% chance of losing 5,000 points, and a $50 \%$ chance of losing 0 points
$\square$ A 50\% chance of losing 5,000 points, and a $50 \%$ chance of losing 0 points
$\square$ A $50 \%$ chance of losing 5,000 points, and a $50 \%$ chance of losing 0 points
$\square$ A $50 \%$ chance of losing 5,000
points, and a $50 \%$ chance of losing 0 points
$\square$ A $50 \%$ chance of losing 5,000 points, and a $50 \%$ chance of losing 0 points
$\square$ A 50\% chance of losing 5,000 points, and a $50 \%$ chance of losing 0 pointsA 50\% chance of losing 5,000
points, and a $50 \%$ chance of losing 0 pointsA 50\% chance of losing 5,000
points, and a $50 \%$ chance of losing 0 points

- A 50\% chance of losing 5,000
points, and a $50 \%$ chance of losing 0 points
$\square$ A $50 \%$ chance of losing 5,000 points, and a $50 \%$ chance of losing 0 points
$\square$ A $50 \%$ chance of losing 5,000
points, and a $50 \%$ chance of losing 0 pointsA 50\% chance of losing 5,000 points, and a $50 \%$ chance of losing 0 pointsA 50\% chance of losing 5,000
points, and a $50 \%$ chance of losing 0 points
$\square$ A $50 \%$ chance of losing 5,000 points, and a $50 \%$ chance of losing 0 points
$\square$ A $50 \%$ chance of losing 5,000 points, and a $50 \%$ chance of losing 0 points
or Losing 5,500 points
or $\quad$ Losing 5,000 points
or Losing 4,500 points
or $\square$ Losing 4,000 points
or $\square$ Losing 3,750 points
or $\square$ Losing 3,500 points
or $\square$ Losing 3,250 points
or $\quad$ Losing 3,000 points
or $\square$ Losing 2,750 points
or $\quad$ Losing 2,500 points
or $\quad \square$ Losing 2,250 points
or $\quad$ Losing 2,000 points
or $\square$ Losing 1,750 points
or $\square$ Losing 1,500 points
or $\quad$ Losing 1,000 points
or $\square$ Losing 500 points

Figure E.13: Mixed, Lottery 1
YouGov

For each row in the table below, which option would you prefer?
v A $50 \%$ chance of winning 5,000 points, and a $50 \%$ chance of losing 5,000 points
$\square$ A $50 \%$ chance of winning 5,000 points, and a $50 \%$ chance of losing 5,000 points
$\square$ A $50 \%$ chance of winning 5,000 points, and a $50 \%$ chance of losing 5,000 points
$\square$ A $50 \%$ chance of winning 5,000 points, and a $50 \%$ chance of losing 5,000 points
$\square$ A $50 \%$ chance of winning 5,000 points, and a $50 \%$ chance of losing 5,000 points
$\square$ A $50 \%$ chance of winning 5,000 points, and a $50 \%$ chance of losing 5,000 points
$\square$ A $50 \%$ chance of winning 5,000 points, and a $50 \%$ chance of losing 5,000 points
$\square$ A $50 \%$ chance of winning 5,000 points, and a $50 \%$ chance of losing 5,000 points
$\square$ A $50 \%$ chance of winning 5,000 points, and a $50 \%$ chance of losing 5,000 points
$\square$ A $50 \%$ chance of winning 5,000 points, and a $50 \%$ chance of losing 5,000 points
$\square$ A $50 \%$ chance of winning 5,000 points, and a $50 \%$ chance of losing 5,000 points
$\square$ A $50 \%$ chance of winning 5,000 points, and a $50 \%$ chance of losing 5,000 points
$\square$ A $50 \%$ chance of winning 5,000 points, and a $50 \%$ chance of losing 5,000 points
$\square$ A $50 \%$ chance of winning 5,000 points, and a $50 \%$ chance of losing 5,000 points
$\square$ A $50 \%$ chance of winning 5,000 points, and a $50 \%$ chance of losing 5,000 points
A $50 \%$ chance of winning 5,000 points, and a $50 \%$ chance of losing 5,000 points
or Losing 6,000 points
or $\square$ Losing 5,000 points
or $\square$ Losing 4,000 points
or $\square$ Losing 3,000 points
or $\square$ Losing 2,500 points
or $\quad \square$ Losing 2,000 points
or $\square$ Losing 1,750 points
or $\square$ Losing 1,500 points
or $\square$ Losing 1,250 points
or $\square$ Losing 1,000 points
or $\square$ Losing 750 points
or Losing 500 points
or Losing 250 points
or $\square 0$ points
or $\quad$ Gaining 250 points
or $\square$ Gaining 500 points

Figure E.14: Mixed, Lottery 2
YouGov

For each row in the table below, which option would you prefer?
v A $50 \%$ chance of winning 4,000 points, and a $50 \%$ chance of losing 4,000 points
$\square$ A $50 \%$ chance of winning 4,000 points, and a $50 \%$ chance of losing 4,000 points
$\square$ A $50 \%$ chance of winning 4,000 points, and a 50\% chance of losing 4,000 points
$\square$ A $50 \%$ chance of winning 4,000 points, and a $50 \%$ chance of losing 4,000 points
A $50 \%$ chance of winning 4,000 points, and a $50 \%$ chance of losing 4,000 points
$\square$ A $50 \%$ chance of winning 4,000 points, and a $50 \%$ chance of losing 4,000 pointsA $50 \%$ chance of winning 4,000 points, and a $50 \%$ chance of losing 4,000 pointsA 50\% chance of winning 4,000 points, and a $50 \%$ chance of losing 4,000 pointsA 50\% chance of winning 4,000 points, and a $50 \%$ chance of losing 4,000 points
$\square$ A $50 \%$ chance of winning 4,000 points, and a $50 \%$ chance of losing 4,000 points
$\square$ A $50 \%$ chance of winning 4,000 points, and a $50 \%$ chance of losing 4,000 points
$\square$ A $50 \%$ chance of winning 4,000 points, and a $50 \%$ chance of losing 4,000 pointsA $50 \%$ chance of winning 4,000 points, and a $50 \%$ chance of losing 4,000 pointsA $50 \%$ chance of winning 4,000 points, and a $50 \%$ chance of losing 4,000 points
$\square$ A $50 \%$ chance of winning 4,000 points, and a $50 \%$ chance of losing 4,000 points
A $50 \%$ chance of winning 4,000 points, and a $50 \%$ chance of losing 4,000 points
or Losing 5,000 points
or $\quad$ Losing 4,000 points
or $\quad$ Losing 3,000 points
or $\square$ Losing 2,500 points
or $\quad$ Losing 2,000 points
or $\quad$ Losing 1,750 points
or $\square$ Losing 1,500 points
or $\square$ Losing 1,250 points
or $\square$ Losing 1,000 points
or $\square$ Losing 750 points
or $\quad$ Losing 500 points
or $\square$ Losing 250 points
or $\quad \square 0$ points
or $\square$ Gaining 250
or $\quad$ Gaining 500 points
or $\square$ Gaining 1,000 points

Figure E.15: Fixed Money (FM), Lottery 1

## YouGov

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

| $\checkmark$ | 2,500 points | or | An $80 \%$ chance of 2,200 points, and a $20 \%$ chance of 0 points |
| :---: | :---: | :---: | :---: |
| $\square$ | 2,500 points | or | $\square$ An $80 \%$ chance of 2,500 points, and a $20 \%$ chance of 0 points |
| $\square$ | 2,500 points | or | $\square$ An $80 \%$ chance of 2,800 points, and a $20 \%$ chance of 0 points |
| $\square$ | 2,500 points | or | $\square$ An $80 \%$ chance of 3,100 points, and a $20 \%$ chance of 0 points |
| $\square$ | 2,500 points | or | $\square$ An $80 \%$ chance of 3,400 points, and a $20 \%$ chance of 0 points |
| $\square$ | 2,500 points | or | $\square$ An $80 \%$ chance of 3,700 points, and a $20 \%$ chance of 0 points |
| $\square$ | 2,500 points | or | $\square$ An $80 \%$ chance of 4,000 points, and a $20 \%$ chance of 0 points |
| $\square$ | 2,500 points | or | $\square$ An $80 \%$ chance of 4,300 points, and a $20 \%$ chance of 0 points |
| $\square$ | 2,500 points | or | An $80 \%$ chance of 4,600 points, and a $20 \%$ chance of 0 points |
| $\square$ | 2,500 points | or | $\square$ An $80 \%$ chance of 4,900 points, and a $20 \%$ chance of 0 points |
| $\square$ | 2,500 points | or | $\square$ An $80 \%$ chance of 5,200 points, and a $20 \%$ chance of 0 points |
| $\square$ | 2,500 points | or | $\square$ An $80 \%$ chance of 5,500 points, and a $20 \%$ chance of 0 points |
| $\square$ | 2,500 points | or | $\square$ An $80 \%$ chance of 5,800 points, and a $20 \%$ chance of 0 points |
| $\square$ | 2,500 points | or | $\square$ An $80 \%$ chance of 6,100 points, and a $20 \%$ chance of 0 points |
| $\square$ | 2,500 points | or | $\square$ An $80 \%$ chance of 6,400 points, and a $20 \%$ chance of 0 points |
| $\square$ | 2,500 points | or | An $80 \%$ chance of 6,700 points, and a $20 \%$ chance of 0 points |
|  | 2,500 points | or | $\checkmark$ An $80 \%$ chance of 7,000 points, and a $20 \%$ chance of 0 points |

Figure E.16: Fixed Money (FM), Lottery 2

## YouGov

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

| $\checkmark$ | 4,000 points | or | A 75\% chance of 3,600 points, and a $25 \%$ chance of 0 points |
| :---: | :---: | :---: | :---: |
| $\square$ | 4,000 points | or | $\square$ A $75 \%$ chance of 4,000 points, and a $25 \%$ chance of 0 points |
|  | 4,000 points | or | $\square$ A $75 \%$ chance of 4,400 points, and a $25 \%$ chance of 0 points |
|  | 4,000 points | or | A $75 \%$ chance of 4,800 points, and a $25 \%$ chance of 0 points |
| C | 4,000 points | or | A 75\% chance of 5,200 points, and a $25 \%$ chance of 0 points |
|  | 4,000 points | or | A 75\% chance of 5,600 points, and a $25 \%$ chance of 0 points |
| - | 4,000 points | or | A 75\% chance of 6,000 points, and a $25 \%$ chance of 0 points |
| $\square$ | 4,000 points | or | A 75\% chance of 6,400 points, and a $25 \%$ chance of 0 points |
|  | 4,000 points | or | A $75 \%$ chance of 6,800 points, and a $25 \%$ chance of 0 points |
|  | 4,000 points | or | $\square$ A $75 \%$ chance of 7,200 points, and a $25 \%$ chance of 0 points |
|  | 4,000 points | or | A 75\% chance of 7,600 points, and a $25 \%$ chance of 0 points |
|  | 4,000 points | or | $\square$ A $75 \%$ chance of 8,000 points, and a $25 \%$ chance of 0 points |
|  | 4,000 points | or | A $75 \%$ chance of 8,400 points, and a $25 \%$ chance of 0 points |
|  | 4,000 points | or | A $75 \%$ chance of 8,800 points, and a $25 \%$ chance of 0 points |
|  | 4,000 points | or | A $75 \%$ chance of 9,200 points, and a $25 \%$ chance of 0 points |
|  | 4,000 points | or | $\square$ A $75 \%$ chance of 9,600 points, and a $25 \%$ chance of 0 points |
|  | 4,000 points | or | $\checkmark$ A $75 \%$ chance of 10,000 points, and a $25 \%$ chance of 0 points |

## Figure E.17: Two Lotteries (2L), Lottery 1

## YouGov

Reminder: As with previous comparisons, the choice on the left side of the list is the same in every row.
For each row in the table below, which option would you prefer?

| $\checkmark$ A $25 \%$ chance of 2,500 points and a $75 \%$ chance of 0 points | or | A 20\% chance of 2,200 points, and an $80 \%$ chance of 0 points |
| :---: | :---: | :---: |
| A $25 \%$ chance of 2,500 points and a $75 \%$ chance of 0 points | or | A 20\% chance of 2,500 points, and an $80 \%$ chance of 0 points |
| A $25 \%$ chance of 2,500 points and a $75 \%$ chance of 0 points | or | $\square$ A $20 \%$ chance of 2,800 points, and an $80 \%$ chance of 0 points |
| A $25 \%$ chance of 2,500 points and a $75 \%$ chance of 0 points | or | A $20 \%$ chance of 3,100 points, and an $80 \%$ chance of 0 points |
| A $25 \%$ chance of 2,500 points and a $75 \%$ chance of 0 points | or | A 20\% chance of 3,400 points, and an $80 \%$ chance of 0 points |
| A $25 \%$ chance of 2,500 points and a $75 \%$ chance of 0 points | or | A $20 \%$ chance of 3,700 points, and an $80 \%$ chance of 0 points |
| A $25 \%$ chance of 2,500 points and a $75 \%$ chance of 0 points | or | A $20 \%$ chance of 4,000 points, and an $80 \%$ chance of 0 points |
| A $25 \%$ chance of 2,500 points and a $75 \%$ chance of 0 points | or | A 20\% chance of 4,300 points, and an $80 \%$ chance of 0 points |
| A $25 \%$ chance of 2,500 points and a $75 \%$ chance of 0 points | or | A $20 \%$ chance of 4,600 points, and an $80 \%$ chance of 0 points |
| A $25 \%$ chance of 2,500 points and a $75 \%$ chance of 0 points | or | A 20\% chance of 4,900 points, and an $80 \%$ chance of 0 points |
| A $25 \%$ chance of 2,500 points and a $75 \%$ chance of 0 points | or | A 20\% chance of 5,200 points, and an $80 \%$ chance of 0 points |
| A $25 \%$ chance of 2,500 points and a $75 \%$ chance of 0 points | or | A $20 \%$ chance of 5,500 points, and an $80 \%$ chance of 0 points |
| A $25 \%$ chance of 2,500 points and a $75 \%$ chance of 0 points | or | A $20 \%$ chance of 5,800 points, and an $80 \%$ chance of 0 points |
| A $25 \%$ chance of 2,500 points and a $75 \%$ chance of 0 points | or | A 20\% chance of 6,100 points, and an $80 \%$ chance of 0 points |
| A $25 \%$ chance of 2,500 points and a $75 \%$ chance of 0 points | or | A $20 \%$ chance of 6,400 points, and an $80 \%$ chance of 0 points |
| A $25 \%$ chance of 2,500 points and a $75 \%$ chance of 0 points | or | $\square$ A 20\% chance of 6,700 points, and an $80 \%$ chance of 0 points |
| A $25 \%$ chance of 2,500 points and a $75 \%$ chance of 0 points | or | $\checkmark$ A 20\% chance of 7,000 points, and an $80 \%$ chance of 0 points |

Figure E.18: Two Lotteries (2L), Lottery 2

## YouGov

Reminder: As with previous comparisons, the choice on the left side of the list is the same in every row.
For each row in the table below, which option would you prefer?
( A 20\% chance of 4,000 points and an $80 \%$ chance of 0 points

- A $20 \%$ chance of 4,000 points and an $80 \%$ chance of 0 points
- A $20 \%$ chance of 4,000 points and an $80 \%$ chance of 0 points

A 20\% chance of 4,000 points and an $80 \%$ chance of 0 points

A 20\% chance of 4,000 points and an $80 \%$ chance of 0 points
$\square$ A 20\% chance of 4,000 points and an $80 \%$ chance of 0 points
$\square$ A 20\% chance of 4,000 points and an $80 \%$ chance of 0 points

A 20\% chance of 4,000 points and an $80 \%$ chance of 0 points

A 20\% chance of 4,000 points and an $80 \%$ chance of 0 points

A 20\% chance of 4,000 points and an $80 \%$ chance of 0 points

A 20\% chance of 4,000 points and an $80 \%$ chance of 0 points
$\square$ A 20\% chance of 4,000 points and an $80 \%$ chance of 0 points
$\square$ A 20\% chance of 4,000 points and an $80 \%$ chance of 0 points
$\square$ A 20\% chance of 4,000 points and an $80 \%$ chance of 0 points
$\square$ A 20\% chance of 4,000 points and an $80 \%$ chance of 0 points

A 20\% chance of 4,000 points and an $80 \%$ chance of 0 points

A 20\% chance of 4,000 points and an $80 \%$ chance of 0 points
or
or
or $\square$ A 15\% chance of 4,400 points, and an $85 \%$ chance of 0 points
or $\quad$ A $15 \%$ chance of 4,800 points, and an $85 \%$ chance of 0 points
or $\quad$ A 15\% chance of 5,200 points, and an $85 \%$ chance of 0 points
or A $15 \%$ chance of 6,000 points, and an $85 \%$ chance of 0 points
or $\quad$ A $15 \%$ chance of 6,400 points, and an $85 \%$ chance of 0 points
or $\quad$ A $15 \%$ chance of 6,800 points, and an $85 \%$ chance of 0 points
or $\quad$ A 15\% chance of 7,200 points, and an $85 \%$ chance of 0 points
or $\quad$ A 15\% chance of 7,600 points, and an $85 \%$ chance of 0 points
or $\quad$ A $15 \%$ chance of 8,000 points, and an $85 \%$ chance of 0 points
or $\quad$ A $15 \%$ chance of 8,400 points, and an $85 \%$ chance of 0 points
or $\quad$ A $15 \%$ chance of 8,800 points, and an $85 \%$ chance of 0 points
or $\quad$ A $15 \%$ chance of 9,200 points, and an $85 \%$ chance of 0 points
or $\quad$ A 15\% chance of 9,600 points, and an $85 \%$ chance of 0 points
or $\quad$ A 15\% chance of 10,000 points, and an $85 \%$ chance of 0 points

Figure E.19: FM-Mixed, Lottery 1

## YouGov

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

| $\square 0$ points | or | A $50 \%$ chance of losing 10,000 points, and a $50 \%$ chance of gaining 5,000 points |
| :---: | :---: | :---: |
| $\square 0$ points | or | $\square$ A 50\% chance of losing 9,000 points, and a $50 \%$ chance of gaining 5,000 points |
| $\square 0$ points | or | $\square$ A 50\% chance of losing 8,000 points, and a $50 \%$ chance of gaining 5,000 points |
| $\square 0$ points | or | $\square$ A $50 \%$ chance of losing 7,000 points, and a $50 \%$ chance of gaining 5,000 points |
| $\square 0$ points | or | $\square$ A $50 \%$ chance of losing 6,500 points, and a $50 \%$ chance of gaining 5,000 points |
| $\square 0$ points | or | $\square$ A 50\% chance of losing 6,000 points, and a $50 \%$ chance of gaining 5,000 points |
| $\square 0$ points | or | $\square$ A $50 \%$ chance of losing 5,500 points, and a $50 \%$ chance of gaining 5,000 points |
| $\square 0$ points | or | $\square$ A $50 \%$ chance of losing 5,000 points, and a $50 \%$ chance of gaining 5,000 points |
| $\square 0$ points | or | $\square$ A $50 \%$ chance of losing 4,500 points, and a $50 \%$ chance of gaining 5,000 points |
| $\square 0$ points | or | A 50\% chance of losing 4,000 points, and a $50 \%$ chance of gaining 5,000 points |
| $\square 0$ points | or | $\square$ A $50 \%$ chance of losing 3,500 points, and a $50 \%$ chance of gaining 5,000 points |
| $\square 0$ points | or | $\square$ A 50\% chance of losing 3,000 points, and a $50 \%$ chance of gaining 5,000 points |
| $\square 0$ points | or | $\square$ A $50 \%$ chance of losing 2,500 points, and a $50 \%$ chance of gaining 5,000 points |
| $\square 0$ points | or | $\square$ A 50\% chance of losing 2,000 points, and a $50 \%$ chance of gaining 5,000 points |
| $\square 0$ points | or | $\square$ A $50 \%$ chance of losing 1,500 points, and a $50 \%$ chance of gaining 5,000 points |
| $\square 0$ points | or | $\square$ A 50\% chance of losing 1,000 points, and a $50 \%$ chance of gaining 5,000 points |
| $\square 0$ points | or | A 50\% chance of 0 points, and a $50 \%$ chance of gaining 5,000 points |
| $\square 0$ points | or | - A 50\% chance of gaining 1,000 points, and a $50 \%$ chance of gaining 5,000 points |

Reset
Autofill

Figure E.20: FM-Mixed, Lottery 2

## YouGov

For each row in the table below, which option would you prefer?0 points0 points

0 points0 points

0 points0 points

0 points0 points

0 points0 points

0 points0 points

0 points0 points

0 points0 points0 points
$\square 0$ points
or
or

A 50\% chance of losing 10,000 points, and a $50 \%$ chance of gaining 4,000 points

A 50\% chance of losing 9,000 points, and a $50 \%$ chance of gaining 4,000 points
$\square$ A 50\% chance of losing 8,000 points, and a $50 \%$ chance of gaining 4,000 points

A 50\% chance of losing 7,000 points, and a $50 \%$ chance of gaining 4,000 points

A 50\% chance of losing 6,500 points, and a 50\% chance of gaining 4,000 points
$\square$ A 50\% chance of losing 6,000 points, and a $50 \%$ chance of gaining 4,000 points
$\square$ A 50\% chance of losing 5,500 points, and a $50 \%$ chance of gaining 4,000 points

A 50\% chance of losing 5,000 points, and a $50 \%$ chance of gaining 4,000 points
$\square$ A 50\% chance of losing 4,500 points, and a $50 \%$ chance of gaining 4,000 pointsA 50\% chance of losing 4,000 points, and a $50 \%$ chance of gaining 4,000 points
$\square$ A $50 \%$ chance of losing 3,500 points, and a $50 \%$ chance of gaining 4,000 points

A 50\% chance of losing 3,000 points, and a $50 \%$ chance of gaining 4,000 points
$\square$ A 50\% chance of losing 2,500 points, and a 50\% chance of gaining 4,000 pointsA 50\% chance of losing 2,000 points, and a $50 \%$ chance of gaining 4,000 points
$\square$ A $50 \%$ chance of losing 1,500 points, and a $50 \%$ chance of gaining 4,000 points

A 50\% chance of losing 1,000 points, and a $50 \%$ chance of gaining 4,000 points

A 50\% chance of 0 points, and a $50 \%$ chance of gaining 4,000 points

A $50 \%$ chance of gaining 1,000 points, and a $50 \%$ chance of gaining 4,000 points

Figure E.21: 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 | - | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Flown on an airplane | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Been to the gym | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Traveled to the moon | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Gone to the grocery store | 0 | 0 | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Read a book | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Cooked dinner | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Given birth | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Gone to a religious service | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Gotten a haircut | $\bigcirc$ | 0 | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |

Figure E.22: 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.RedGreenPurpleBlackOrangeYellowGold

Figure E.23: 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.24: Attention Screener III Part 2

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

- Ye
- Maybe
- No

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

```
Yes
Maybe
ON
```

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

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

How much money did Simon allegedly steal?
About $\$ 500$

- About $\$ 1,500$

About $\$ 25,000$

- About $\$ 1$ million dollars
(C) None of the above

Figure E.25: DOSE Instructions

## 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.26: Example of a Choice in DOSE

## 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.27: Example of error given when participants tried to proceed with multiple crossovers.



[^0]:    ${ }^{1}$ This means for mixed that we are often reporting a coefficient of smaller magnitude, because it is less negative.

[^1]:    ${ }^{2}$ Wave 2 consists of the same participants as Wave 1, hence the observations are not independent. For results by survey, see (Chapman et al., 2017).

[^2]:    ${ }^{3}$ We searched all papers published in top economics journals. We also consulted the comprehensive annotated bibliography by Peter Wakker (http://people.few.eur.nl/wakker/refs/webrfrncs.docx). This yielded ten studies. Tunçel and Hammitt (2014) conducts a similar search and finds five studies with within-participant designs-all of which were also found by our search. Two no longer had data available (Harless, 1989; Eisenberger and Weber, 1995).

    We excluded three other datasets from the meta-analysis: Schmidt and Traub (2009) and Schmidt and Trautmann (2014) use the same data, which contains 23 participants making choices over 50 lotteries. The range of correlations of WTA and WTP in those lotteries is from -0.67 to 0.86 , with an average of 0.19 . Most of these correlations are statistically insignificant due to the very small sample size. Dean and Ortoleva (2019) measure WTA and WTP for the same participants, but the WTP measure is explicitly framed, while the WTA measure is implicitly framed, making it incomparable to other results. The reported correlation between the two measures is 0.33 . Plott and Zeiler (2005) measures WTA and WTP for lotteries in training rounds, although the lotteries were not exactly the same, as the lotteries used to measure WTA and WTP differed by a constant, but does not report this data due to concerns about reliability.
    ${ }^{4}$ Dropping dominated choices, or replacing them with undominated options, results in similar overall patterns, although the value of particular correlations changes, sometimes substantially.

[^3]:    ${ }^{5}$ Specifically, after each of the six rounds, the price was posted. The correlation averaged across six rounds is on the high end compared to BDM-based studies, but this is in large part due to a reduction in measurement error: the correlations for individual rounds tend to be around 0.2 .
    ${ }^{6}$ In this example, we are adopting an approach similar to 3rd generation prospect theory, treating selling a lottery as if the individual is issuing it. Other approaches generate similar results; see Cerreia-Vioglio, Dillenberger, and Ortoleva (2021).

