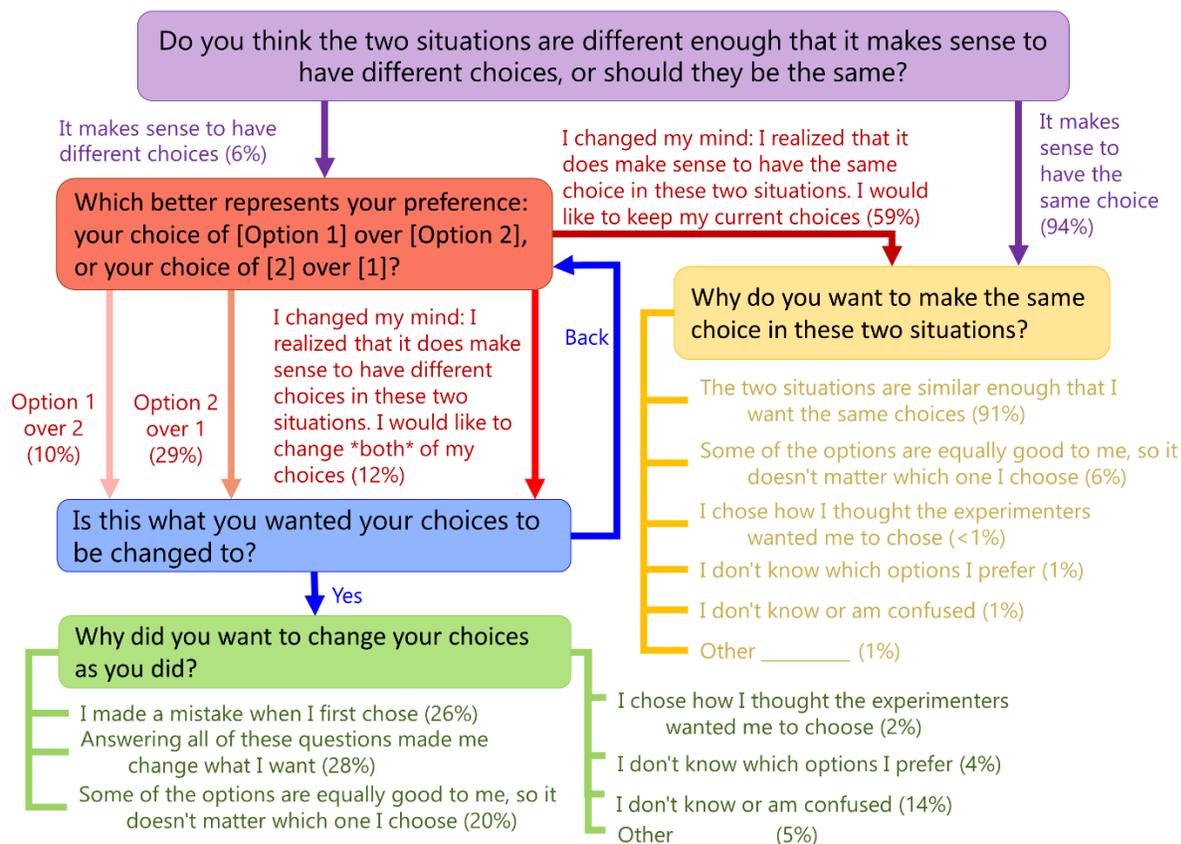


# For Online Publication

## Web Appendix C. Additional Figures and Tables

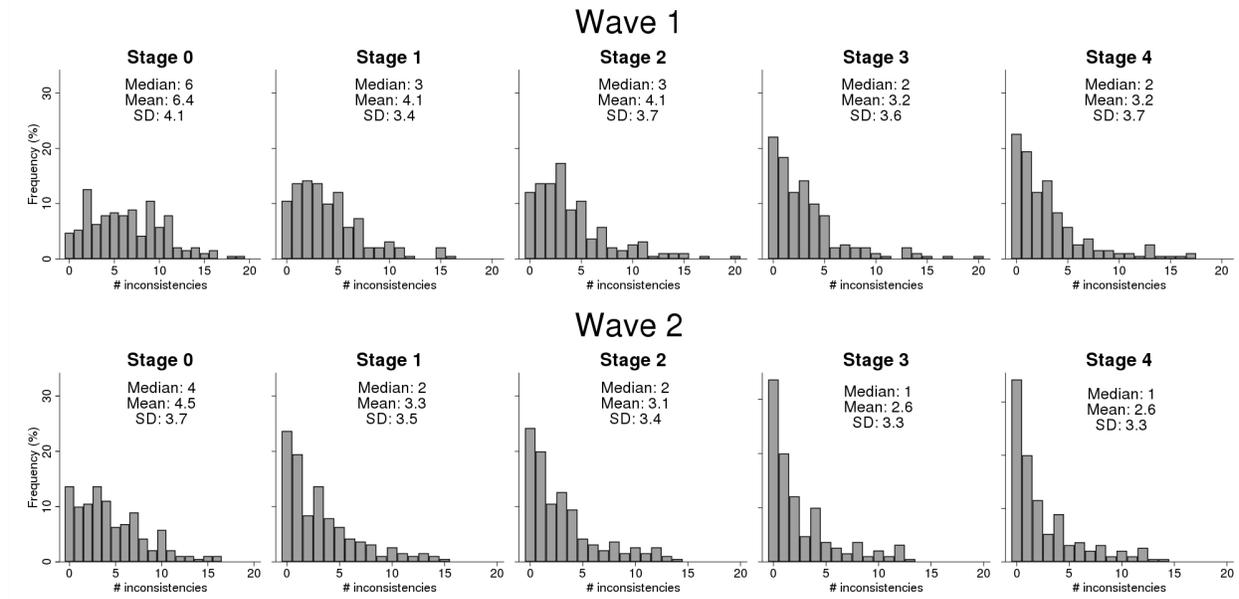
Figure C.5: Flow chart for the placebo inconsistency reconsideration procedure



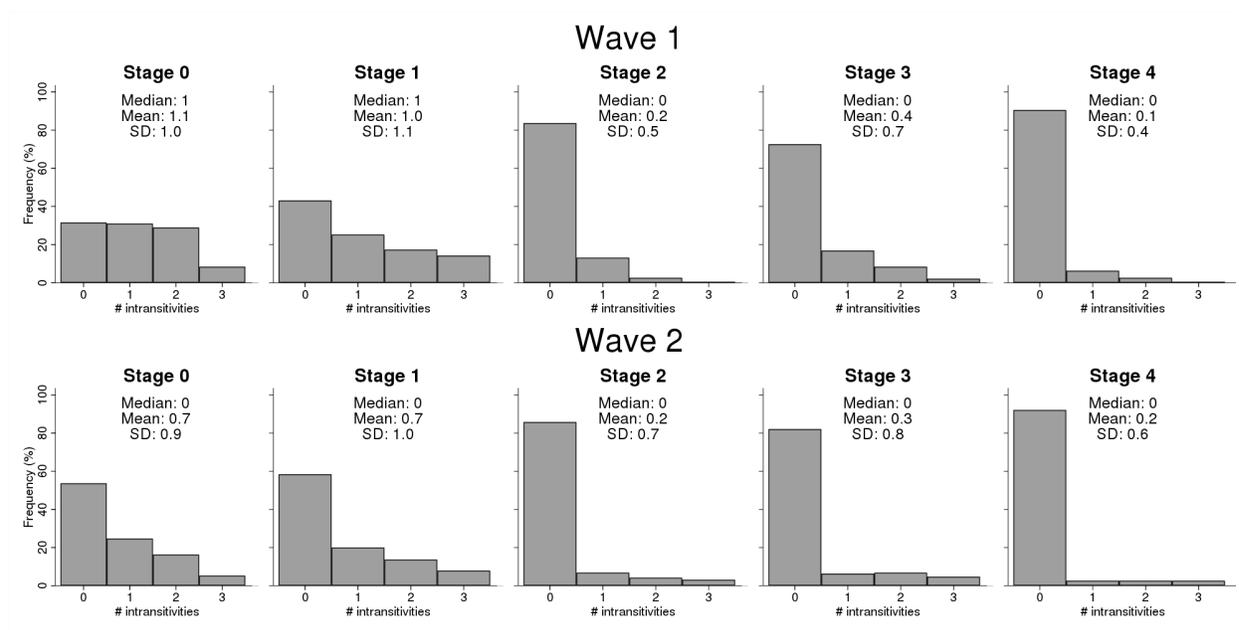
**Note:** The numbers in parentheses are frequencies of each choice across all instances of placebos in the Wave 1+2 sample. Percentages are rounded to the nearest 1% and therefore may not add up to 100%.

**Figure C.6: Histograms of number of inconsistencies and intransitivities, restricted to individuals who saw different monetary levels in waves 1 and 2**

**(A) Inconsistencies**



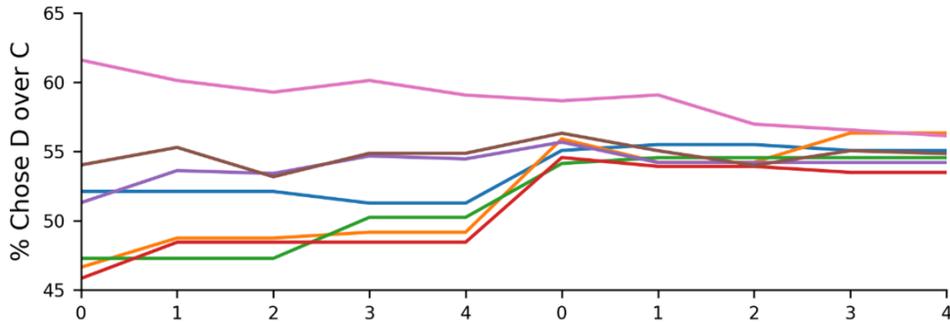
**(B) Intransitivities**



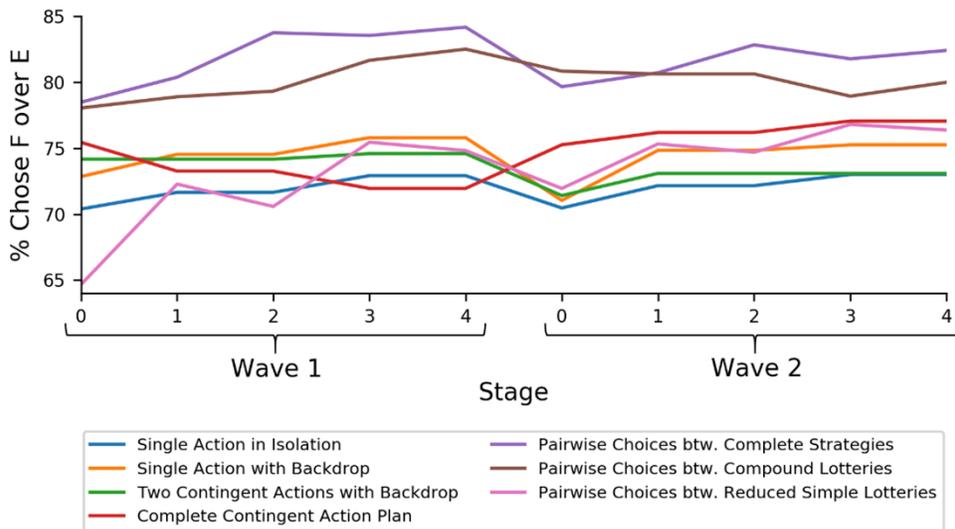
**Note:** Wave 1+2 sample, restricted to the 190 participants who saw different monetary levels in waves 1 and 2.

**Figure C.7: Percentage of participants who make the risky choice in simple lotteries, adjusted by monetary level**

**(A) C versus D**



**(B) E versus F**



**Note:** Wave 1+2 sample. For each of the three pairwise frames, the top panel reports the average from the two questions eliciting BCE vs. BDE and BCF vs. BDF, and bottom panel reports the average from the two questions eliciting BCE vs. BCF and BDE vs. BDF. Standard errors around each plotted point are roughly 2-4 percentage points (not shown to avoid cluttering the figure). To control for monetary level, we took the following steps: first, we regressed the participants' choices on indicators for monetary level separately for each frame. Then, we obtained the residuals. Finally, we standardized the residual to have the same mean and standard deviation as the original distribution. The figure plots these standardized residuals.

**Table C.4: Average consistency rates by frame across stages and waves**

| Frame   | (1)            | (2)                           |         | (3)                            | (4)  | (5)   | #Obs |
|---|----------------|-------------------------------|---------|--------------------------------|--|---|------|
|   | # Pot. Incons. | Wave 1 vs. 2 Consistency Rate |         | Random Choice Consistency Rate | <i>p</i> -value: Stage-0 Consistency Rate = Stage-4 Consistency Rate | <i>p</i> -value: Stage-0 Consistency Rate = Random Consistency Rate |      |
|   |                | Stage 0                       | Stage 4 |                                |  |   |      |
| <b>Wave 1+2 Sample</b>                            |                |                               |         |                                |  |   |      |
| Single Action in Isolation                        | 2              | 67.4%                         | 69.1%   | 50.0%                          | 0.2286   | <0.0005   | 236  |
| Single Action with Backdrop                       | 2              | 67.1%                         | 71.7%   | 50.0%                          | 0.0050   | <0.0005   | 237  |
| Two Contingent Actions with Backdrop              | 2              | 68.6%                         | 67.4%   | 50.0%                          | 0.3973   | <0.0005   | 236  |
| Complete Contingent Action Plan                   | 1              | 43.6%                         | 44.1%   | 20.0%                          | 0.8623   | <0.0005   | 227  |
| Pairwise Choices B/t Complete Strategies          | 10             | 69.3%                         | 73.3%   | 50.0%                          | <0.0005  | <0.0005   | 236  |
| Pairwise Choices B/t Compound Lotteries           | 10             | 70.4%                         | 74.5%   | 50.0%                          | <0.0005  | <0.0005   | 234  |
| Pairwise Choices B/t Reduced Lotteries            | 10             | 68.0%                         | 72.8%   | 50.0%                          | <0.0005  | <0.0005   | 234  |
| Overall   | 37             | 68.1%                         | 72.2%   | 49.2%                          | <0.0005  | <0.0005   | 221  |
| <b>Wave 1+2 Sample, different monetary levels</b> |                |                               |         |                                |  |   |      |
| Single Action in Isolation                        | 2              | 63.3%                         | 64.3%   | 50.0%                          | 0.5792   | <0.0005   | 147  |
| Single Action with Backdrop                       | 2              | 62.6%                         | 65.6%   | 50.0%                          | 0.1502   | <0.0005   | 147  |
| Two Contingent Actions with Backdrop              | 2              | 62.6%                         | 62.6%   | 50.0%                          | 1.0000   | <0.0005   | 147  |
| Complete Contingent Action Plan                   | 1              | 37.9%                         | 37.1%   | 20.0%                          | 0.8357   | 0.0021  | 140  |
| Pairwise Choices B/t Complete Strategies          | 10             | 67.7%                         | 70.8%   | 50.0%                          | 0.0289   | <0.0005   | 146  |
| Pairwise Choices B/t Compound Lotteries           | 10             | 67.7%                         | 70.6%   | 50.0%                          | 0.0316   | <0.0005   | 145  |
| Pairwise Choices B/t Reduced Lotteries            | 10             | 65.4%                         | 69.4%   | 50.0%                          | 0.0110   | <0.0005   | 145  |
| Overall   | 37             | 65.5%                         | 68.8%   | 49.2%                          | 0.0006   | <0.0005   | 137  |
| <b>Wave 1+2 Sample, same monetary levels</b>      |                |                               |         |                                |  |   |      |
| Single Action in Isolation                        | 2              | 74.2%                         | 77.0%   | 50.0%                          | 0.1984   | <0.0005   | 89   |

|  |    |       |       |       |         |         |    |
|--|----|-------|-------|-------|---------|---------|----|
| Single Action with Backdrop              | 2  | 74.4% | 81.7% | 50.0% | 0.0060  | <0.0005 | 90 |
| Two Contingent Actions with Backdrop     | 2  | 78.7% | 75.3% | 50.0% | 0.1812  | <0.0005 | 89 |
| Complete Contingent Action Plan          | 1  | 52.9% | 55.2% | 20.0% | 0.5302  | 0.3375  | 87 |
| Pairwise Choices B/t Complete Strategies | 10 | 71.8% | 77.4% | 50.0% | 0.0008  | <0.0005 | 90 |
| Pairwise Choices B/t Compound Lotteries  | 10 | 74.7% | 80.9% | 50.0% | 0.0022  | <0.0005 | 89 |
| Pairwise Choices B/t Reduced Lotteries   | 10 | 72.2% | 78.3% | 50.0% | <0.0005 | <0.0005 | 89 |
| Overall                                  | 37 | 72.5% | 77.7% | 49.2% | <0.0005 | <0.0005 | 84 |

**Note:** All panels are restricted to participants who are not missing any data from either wave for that frame. Top panel: Wave 1+2 sample. Middle panel: Wave 1+2 sample, restricted to participants who were assigned different monetary levels in waves 1 and 2. Bottom panel: Wave 1+2 sample, restricted to participants who were assigned the same monetary levels in waves 1 and 2. Consistency rate = (total number of consistencies)/(number of potential inconsistencies). *P*-values are from two-sided tests for differences in proportions. Percentages are rounded to the nearest 0.1%.

**Table C.9: Untutored choices by frame and randomization into the rightside-up vs. upside-down orientation**

| Option 1 vs. Option 2                               | % Chose Option 1         |                         | Diff  | P-value<br>$H_0: \text{Diff} = 0$ | #Obs |
|---|--------------------------|-------------------------|-------|-----------------------------------|------|
|   | Rightside-Up Orientation | Upside-Down Orientation |       |                                   |      |
| <b>Single Action in Isolation</b>                   |                          |                         |       |                                   |      |
| C vs. D   | 46.5%                    | 48.5%                   | -2.0% | 0.7623                            | 237  |
| E vs. F   | 30.7                     | 28.7                    | 2.0   | 0.7378                            | 237  |
| <b>Single Action with Backdrop</b>                  |                          |                         |       |                                   |      |
| C vs. D   | 49.5                     | 55.9                    | -6.4  | 0.3326                            | 237  |
| E vs. F   | 23.8                     | 29.4                    | -5.6  | 0.3348                            | 237  |
| <b>Two Contingent Actions with Backdrop</b>         |                          |                         |       |                                   |      |
| C vs. D   | 52.5                     | 52.5                    | -0.1  | 0.9858                            | 236  |
| E vs. F   | 24.8                     | 26.5                    | -1.7  | 0.7660                            | 237  |
| <b>Complete Contingent Action Plan</b>              |                          |                         |       |                                   |      |
| A vs. other options                                 | 18.2                     | 20.5                    | -2.3  | 0.6677                            | 231  |
| BCE vs. other options                               | 6.1                      | 5.3                     | 0.8   | 0.8057                            | 231  |
| BCF vs. other options                               | 33.3                     | 32.6                    | 0.8   | 0.9040                            | 231  |
| BDE vs. other options                               | 5.1                      | 12.1                    | -7.1  | 0.0648                            | 231  |
| BDF vs. other options                               | 37.4                     | 29.5                    | 7.8   | 0.2119                            | 231  |
| <b>Pairwise Choices Between Complete Strategies</b> |                          |                         |       |                                   |      |
| A vs. BCE   | 27.7                     | 41.9                    | -14.2 | 0.0243                            | 237  |
| A vs. BCF   | 21.8                     | 22.8                    | -1.0  | 0.8541                            | 237  |
| A vs. BDE   | 33.7                     | 39.7                    | -6.0  | 0.3431                            | 237  |
| A vs. BDF   | 21.8                     | 24.3                    | -2.5  | 0.6560                            | 237  |
| BCE vs. BCF   | 20.8                     | 16.9                    | 3.9   | 0.4495                            | 237  |
| BCE vs. BDE   | 48.5                     | 47.1                    | 1.5   | 0.8253                            | 237  |
| BCE vs. BDF   | 36.6                     | 39.7                    | -3.1  | 0.6323                            | 237  |
| BCF vs. BDE   | 72.3                     | 63.2                    | 9.0   | 0.1441                            | 237  |
| BCF vs. BDF   | 50.5                     | 48.5                    | 2.0   | 0.7659                            | 237  |
| BDE vs. BDF   | 25.7                     | 23.5                    | 2.2   | 0.6966                            | 237  |
| <b>Pairwise Choices Between Compound Lotteries</b>  |                          |                         |       |                                   |      |
| A vs. BCE   | 30.7                     | 33.8                    | -3.1  | 0.6126                            | 237  |
| A vs. BCF   | 26.7                     | 22.1                    | 4.7   | 0.4072                            | 237  |
| A vs. BDE   | 34.7                     | 32.4                    | 2.3   | 0.7117                            | 237  |
| A vs. BDF   | 23.8                     | 24.3                    | -0.5  | 0.9291                            | 237  |

|             |      |      |      |        |     |
|-------------|------|------|------|--------|-----|
| BCE vs. BCF | 22.0 | 16.9 | 5.1  | 0.3276 | 236 |
| BCE vs. BDE | 47.5 | 50.4 | -2.8 | 0.6669 | 236 |
| BCE vs. BDF | 37.6 | 36.8 | 0.9  | 0.8929 | 237 |
| BCF vs. BDE | 64.4 | 74.1 | -9.7 | 0.1082 | 236 |
| BCF vs. BDF | 42.6 | 42.6 | -0.1 | 0.9911 | 237 |
| BDE vs. BDF | 27.7 | 22.2 | 5.5  | 0.3336 | 236 |

**Pairwise Choices  
Between Simple Lotteries**

|             |      |      |      |        |     |
|-------------|------|------|------|--------|-----|
| A vs. BCE   | 29.7 | 28.1 | 1.6  | 0.7952 | 236 |
| A vs. BCF   | 35.0 | 36.0 | -1.0 | 0.8710 | 236 |
| A vs. BDE   | 35.6 | 34.6 | 1.1  | 0.8633 | 237 |
| A vs. BDF   | 31.7 | 29.4 | 2.3  | 0.7084 | 237 |
| BCE vs. BCF | 28.7 | 27.4 | 1.3  | 0.8259 | 236 |
| BCE vs. BDE | 46.5 | 43.4 | 3.2  | 0.6311 | 237 |
| BCE vs. BDF | 44.6 | 43.4 | 1.2  | 0.8580 | 237 |
| BCF vs. BDE | 46.5 | 51.9 | -5.3 | 0.4210 | 236 |
| BCF vs. BDF | 29.7 | 33.1 | -3.4 | 0.5814 | 237 |
| BDE vs. BDF | 40.6 | 44.1 | -3.5 | 0.5894 | 237 |

**Note:** Wave 1+2 sample. *P*-values are two-sided and from two-sample *t*-tests for differences in proportions between choices made by participants who saw the rightside-up orientation of screens (i.e., choice A is at the top and choices E vs. F are at the bottom of the screen) and choices made by participants who saw the upside-down orientation (i.e. choice A is at the bottom and choices E vs. F are at the top of the screen).

**Table C.10: Percentage of participants who make the risky choice in simple lotteries**

| Frame                                    | Wave 1  |         |         |         |         | Wave 2  |         |         |         |         |
|--|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
|  | Stage 0 | Stage 1 | Stage 2 | Stage 3 | Stage 4 | Stage 0 | Stage 1 | Stage 2 | Stage 3 | Stage 4 |
| <b>% Choose D over C</b>                 |         |         |         |         |         |         |         |         |         |         |
| Single Action in Isolation               | 52.3%   | 52.3%   | 52.3%   | 51.5%   | 51.5%   | 54.9%   | 55.3%   | 55.3%   | 54.9%   | 54.9%   |
|  | (3.3)   | (3.3)   | (3.3)   | (3.3)   | (3.3)   | (3.2)   | (3.2)   | (3.2)   | (3.2)   | (3.2)   |
| Single Action with Backdrop              | 46.8    | 48.9    | 48.9    | 49.4    | 49.4    | 55.7    | 54.0    | 54.0    | 56.1    | 56.1    |
|  | (3.2)   | (3.3)   | (3.3)   | (3.3)   | (3.3)   | (3.2)   | (3.2)   | (3.2)   | (3.2)   | (3.2)   |
| Two Contingent Actions with Backdrop     | 47.5    | 47.5    | 47.5    | 50.4    | 50.4    | 54.0    | 54.4    | 54.4    | 54.4    | 54.4    |
|  | (3.3)   | (3.3)   | (3.3)   | (3.3)   | (3.3)   | (3.2)   | (3.2)   | (3.2)   | (3.2)   | (3.2)   |
| Complete Contingent Action Plan          | 45.9    | 48.5    | 48.5    | 48.5    | 48.5    | 54.6    | 53.9    | 53.9    | 53.5    | 53.5    |
|  | (3.3)   | (3.3)   | (3.3)   | (3.3)   | (3.3)   | (3.3)   | (3.3)   | (3.3)   | (3.3)   | (3.3)   |
| Pairwise Choices B/t Complete Strategies | 51.5    | 53.8    | 53.6    | 54.9    | 54.6    | 55.5    | 54.0    | 54.0    | 54.0    | 54.0    |
|  | (2.9)   | (2.9)   | (2.9)   | (2.9)   | (2.9)   | (2.8)   | (2.9)   | (2.9)   | (2.9)   | (3.0)   |
| Pairwise Choices B/t Compound Lotteries  | 54.2    | 55.5    | 53.4    | 55.1    | 55.1    | 56.1    | 54.9    | 53.8    | 54.9    | 54.6    |
|  | (2.9)   | (2.8)   | (2.9)   | (3.0)   | (3.0)   | (3.0)   | (2.9)   | (3.0)   | (2.9)   | (2.9)   |
| Pairwise Choices B/t Reduced Lotteries   | 61.8    | 60.3    | 59.5    | 60.3    | 59.3    | 58.4    | 58.9    | 56.8    | 56.3    | 55.9    |
|  | (2.6)   | (2.6)   | (2.8)   | (2.8)   | (2.9)   | (2.7)   | (2.7)   | (2.8)   | (2.9)   | (2.9)   |
| <b>% Choose F over E</b>                 |         |         |         |         |         |         |         |         |         |         |
| Single Action in Isolation               | 70.5    | 71.7    | 71.7    | 73.0    | 73.0    | 70.3    | 72.0    | 72.0    | 72.9    | 72.9    |
|  | (3.0)   | (2.9)   | (2.9)   | (2.9)   | (2.9)   | (3.0)   | (2.9)   | (2.9)   | (2.9)   | (2.9)   |
| Single Action with Backdrop              | 73.0    | 74.7    | 74.7    | 75.9    | 75.9    | 70.9    | 74.7    | 74.7    | 75.1    | 75.1    |
|  | (2.9)   | (2.8)   | (2.8)   | (2.8)   | (2.8)   | (3.0)   | (2.8)   | (2.8)   | (2.8)   | (2.8)   |
| Two Contingent Actions with Backdrop     | 74.3    | 74.3    | 74.3    | 74.7    | 74.7    | 71.3    | 73.0    | 73.0    | 73.0    | 73.0    |
|  | (2.8)   | (2.8)   | (2.8)   | (2.8)   | (2.8)   | (2.9)   | (2.9)   | (2.9)   | (2.9)   | (2.9)   |
| Complete Contingent Action Plan          | 75.5    | 73.4    | 73.4    | 72.1    | 72.1    | 75.1    | 76.1    | 76.1    | 77.0    | 77.0    |
|  | (2.8)   | (2.9)   | (2.9)   | (3.0)   | (3.0)   | (2.9)   | (2.8)   | (2.8)   | (2.8)   | (2.8)   |
| Pairwise Choices B/t Complete Strategies | 78.5    | 80.4    | 83.8    | 83.5    | 84.2    | 79.7    | 80.7    | 82.8    | 81.8    | 82.4    |
|  | (2.1)   | (2.1)   | (2.0)   | (2.0)   | (2.0)   | (2.3)   | (2.2)   | (2.1)   | (2.2)   | (2.2)   |
| Pairwise Choices B/t Compound Lotteries  | 78.1    | 78.9    | 79.4    | 81.7    | 82.6    | 80.8    | 80.6    | 80.6    | 78.9    | 80.0    |
|  | (2.2)   | (2.2)   | (2.2)   | (2.2)   | (2.1)   | (2.1)   | (2.1)   | (2.2)   | (2.4)   | (2.3)   |

|  |       |       |       |       |       |       |       |       |       |       |
|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Pairwise Choices B/t Reduced Lotteries | 64.6  | 72.2  | 70.6  | 75.4  | 74.8  | 71.9  | 75.3  | 74.7  | 76.8  | 76.4  |
|  | (2.5) | (2.3) | (2.4) | (2.3) | (2.4) | (2.3) | (2.2) | (2.3) | (2.3) | (2.3) |

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**Note:** Wave 1+2 sample. Data shown were used to generate Figure 7. Percentage of participants who chose the riskier option (D or F) are displayed. Standard errors are in parentheses.

**Table C.11: Regression of risky choice on stage of experiment**

|  | (1)<br>Pooled choices | (2)<br>Chose D over C | (3)<br>Chose F over E |
|--|-----------------------|-----------------------|-----------------------|
| Stage                                    | 0.00370<br>(0.00106)  | 0.000506<br>(0.00151) | 0.00690<br>(0.00143)  |
| Wave                                     | 0.0198<br>(0.0175)    | 0.0318<br>(0.0265)    | 0.00777<br>(0.0206)   |
| <u>Frames:</u>                           |                       |                       |                       |
| Single Action with Backdrop              | 0.00460<br>(0.00698)  | -0.0156<br>(0.0104)   | 0.0246<br>(0.00919)   |
| Two Contingent Actions with Backdrop     | -0.00213<br>(0.00963) | -0.0200<br>(0.0135)   | 0.0154<br>(0.0149)    |
| Complete Contingent Action Plan          | 0.0827<br>(0.0177)    | 0.0614<br>(0.0235)    | 0.104<br>(0.0217)     |
| Pairwise Choices b/w Complete Strategies | 0.0512<br>(0.0137)    | 0.00485<br>(0.0204)   | 0.0977<br>(0.0188)    |
| Pairwise Choices b/w Compound Lotteries  | 0.0469<br>(0.0145)    | 0.0125<br>(0.0216)    | 0.0814<br>(0.0194)    |
| Pairwise Choices b/w Reduced Lotteries   | 0.0326<br>(0.0152)    | 0.0525<br>(0.0211)    | 0.0127<br>(0.0221)    |
| Constant                                 | 0.587<br>(0.0299)     | 0.486<br>(0.0452)     | 0.688<br>(0.0374)     |
| #Obs                                     | 32051                 | 16033                 | 16018                 |

**Note:** Wave 1+2 sample. Regression of choice of D or F on the stage of the experiment, controlling for wave and including fixed effects for frames. Standard errors are clustered at the participant level and displayed in parentheses.

**Table C.12: Two-sample  $t$ -test of total inconsistencies in untutored choices, by training**

| Group                               | Mean inconsistencies | SE    | #Obs |
|-------------------------------------|----------------------|-------|------|
| Did not receive additional training | 5.966                | 0.237 | 292  |
| Received additional training        | 5.615                | 0.220 | 304  |
| Difference                          | 0.351                | 0.323 |      |

**Note:** Wave 1 sample. We randomized half the participants to also get a probability training and quiz, alongside the other training batteries. The other half of participants did not get the training and answered the quiz in Part 5 (immediately before the demographic questions). For the null hypothesis that the difference is equal to 0, the  $p$ -value is 0.2780.