

Online Appendix for

Revealed Privacy Preferences: Are Privacy Choices Rational?

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Appendix A: Additional Figures and Tables

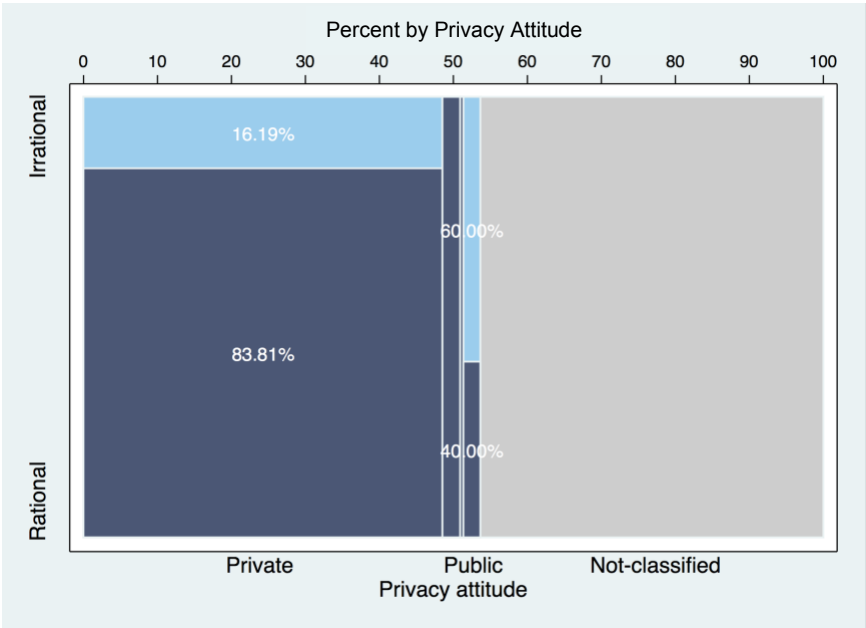


Figure A.1: Proportion of different privacy attitudes

Notes: The privacy-attitude classification used in this figure requires subjects classified as having a specific privacy attitude to choose within 10 percent of the unique point prediction for that attitude for both reports in both two-dimensional problems (within 1 percent of the whole choice set). This strict criterion results in 100 subjects remaining unclassified.

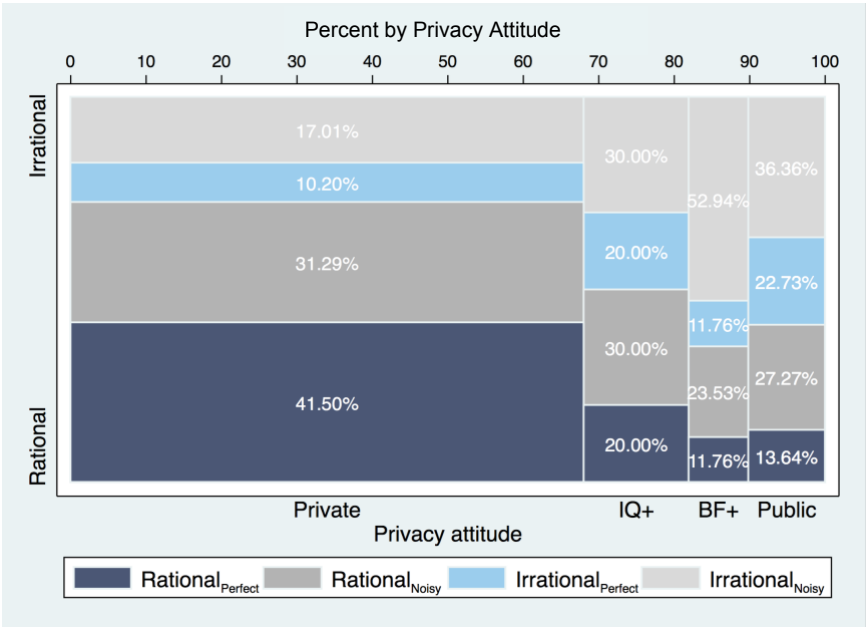


Figure A.2: Percentage

Notes: The graph show subjects belonging to a particular category (privacy attitude and rationality, categorized based on Stage 1), who are either perfectly consistent pricing privacy control for money (blue bars) or inconsistent and exhibit noise (grey bars)

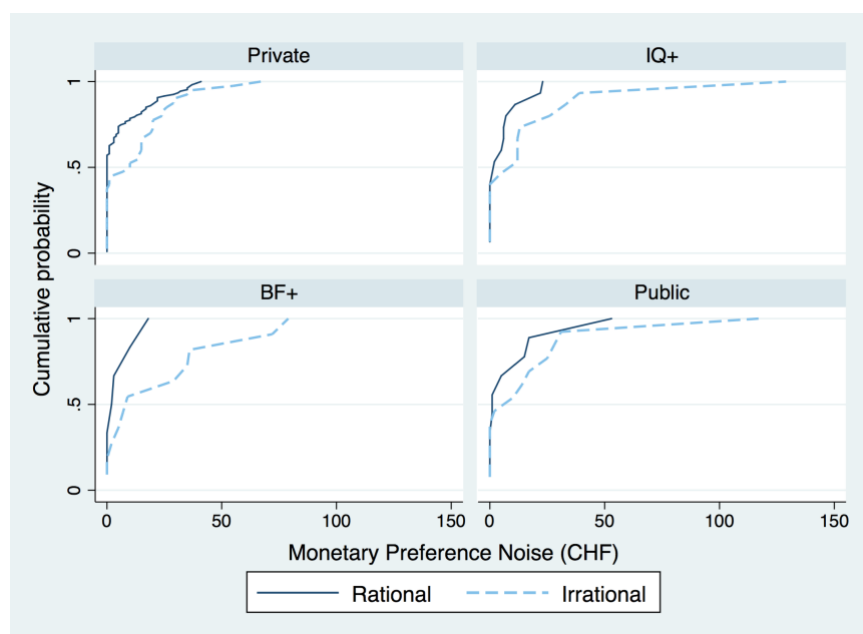


Figure A.3: Cumulative distribution functions of Monetary-Value Noise (MVN) for irrational and rational types, by privacy attitudes.

Notes: Irrational types squander more money than rational types, regardless of their privacy attitudes.

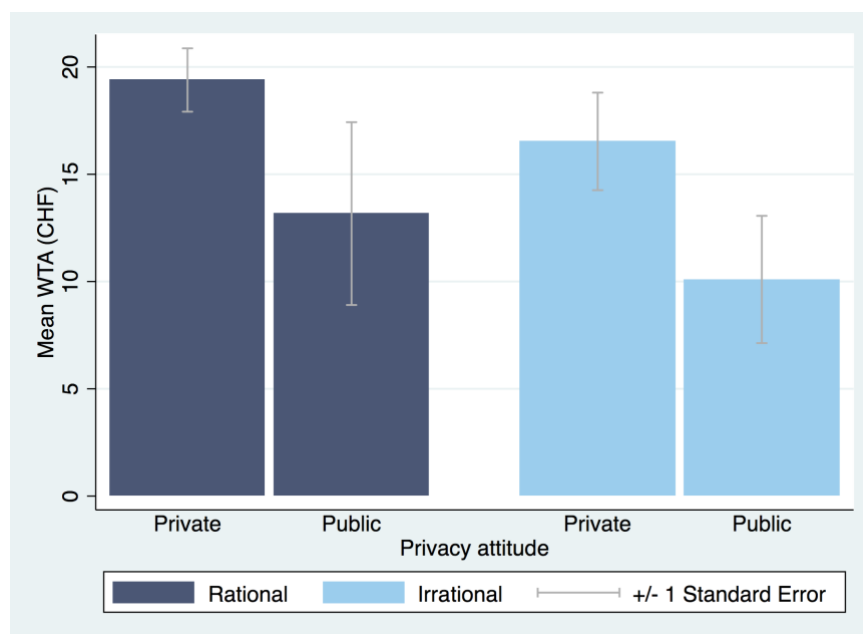


Figure A.4: Mean willingness-to-accept (WTA) for the preset bundles by Privacy Attitude and Rationality

Notes: For both rational and irrational types, private types are willing to pay more for privacy than public types.

Table A.1: Comparing CCEI/GARP violations for the first 8 vs. last 8 responses (Stage 1B)

	Questions	Bronars Power	Rational %	Average CCEI	Percent with CCEI > 0.95
Private Type (from main experiment)	1~8	0.9769	86.4 (94.6) ^a	1.0176	94.6
	9~16	0.9630	88.4 (94.6)	1.0097	94.6
	p-value		0.5978	0.2801	1.000
Monetary Losses (supplemental experiment)	1~8	0.9894	70.3 (91.2)	1.0254	91.2
	9~16	0.9787	68.1 (87.9)	1.0247	87.9
	p-value		0.7481	0.9307	0.4671

“Rational %” generally refers to the percentage of subjects exhibiting no GARP violations.

^a The numbers in parentheses classify as rational any subject with CCEI scores above 0.95. This threshold is adapted to 1.05 for private types in our privacy study and for subjects in our follow-up study with monetary losses.

Table A.2: Correlation between Monetary-value Noise and CCEI (e^*)

	Monetary-Value Noise			
	Private		Public	
	(1)	(2)	(3)	(4)
e^*	17.15* (2.35)	16.43* (2.21)	11.96 (0.16)	-9.081 (-0.11)
Controls	No	Yes	No	Yes
Constant	-9.78 (-1.28)	-7.61 (-0.87)	3.71 (0.05)	46.63 (0.56)
N	147	147	22	22

Notes: Controls include income(categorical), sex (dummy), education (categorical) and marital status (categorical). t statistics in parentheses, * $p < .05$, ** $p < .01$, *** $p < .001$

Table A.3: Correlation between Stage 2 measure (MVN) and self-reported satisfaction with personal information items

Monetary value noise (MVN)								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
IQ								
Satisfied	-1.503 (-0.50)	-1.224 (-0.38)			-2.019 (-0.63)	-2.066 (-0.60)	-1.359 (-0.41)	-1.757 (-0.52)
Unsatisfied	0.290 (0.09)	1.440 (0.42)			0.236 (0.07)	1.164 (0.34)	1.743 (0.52)	0.977 (0.29)
BF								
Satisfied			0.075 (0.03)	0.853 (0.31)	0.842 (0.30)	1.817 (0.63)	0.775 (0.27)	0.846 (0.29)
Unsatisfied			-1.526 (-0.58)	-1.025 (-0.37)	-1.458 (-0.54)	-0.816 (-0.29)	-0.934 (-0.34)	-0.670 (-0.24)
Irrational							6.789** (2.74)	
$ 1 - e^* $								15.43* (2.01)
Controls	No	Yes	No	Yes	No	Yes	Yes	Yes
Constant	8.750** (3.35)	2.674 (0.45)	8.605*** (4.41)	1.668 (0.30)	9.227** (3.22)	2.228 (0.37)	0.670 (0.11)	2.090 (0.35)
<i>N</i>	147	147	147	147	147	147	147	147

Notes: OLS regressions. The dependent variable in each regression is a subject's Monetary Value Noise (MVN), a measure of how costly valuation errors in Stage 2 are, relative to an individual's preferences in Stage 1. Controls include income (categorical), sex (dummy), education (categorical) and marital status (categorical). For subjective satisfaction about intelligence (IQ) and body composition (BF) scores, "Neither satisfied nor unsatisfied" option is the reference group. t-statistics in parentheses,

* $p < .05$, ** $p < .01$, *** $p < .001$.

Table A.4: Including Item-dependent Types in Sample When Testing the Robustness of the Correlation between Privacy Attitude and Daily-life Personal Data Sharing (OLS)

	(1)	(2)	(3)	(4)
	Sharing in social networks (Factor 1)			
Public	0.814*** (3.55)	0.788*** (3.37)	0.534*** (3.65)	0.496*** (3.42)
Controls	No	Yes	No	Yes
Constant	-0.0822 (-1.13)	0.0551 (0.17)	-0.178* (-2.11)	-0.0877 (-0.27)
<i>N</i>	198	198	198	198

t statistics in parentheses, * $p < .05$, ** $p < .01$, *** $p < .001$

Notes: Item-dependent type is coded as Public=0 in Model 1 and Model 2; it is coded as Public=1 in Model 3 and Model 4. This table complement the results in Table 3: including the item-dependent type increasing the sample size from 152 to 198.

Appendix B: Example of Stage 3 Interfaces

Figure B.1 is the screenshot for eliciting the measure "the number of active social media accounts." Notice that the potential payments shown at the bottom of the screen can differ in three cases: "Answers Not Checked" for not having a random check, "Checked & True" for having a random check with *all* answers in Stage 3 verified to be correct, and "Checked & Not True" for having a random check and find any false reporting.

Q3. What social media accounts are you actively using (and do you create content)?

1. I would like to leave this question unanswered.

2. I am not using any social media accounts.

3. I am using following account(s), and I'm sure I can log in.
If you are randomly checked, you will be asked to show your account(s) to the experimenter.

	I create public content	nonpublic contents	I don't create content	I don't have it
Facebook	☒	☐	☐	☐
Google+	☐	☒	☐	☐
Instagram	☐	☐	☒	☐
LinkedIn	☐	☐	☐	☒
Pinterest	☐	☐	☒	☐
Twitter	☐	☒	☐	☐
YouTube	☒	☐	☐	☐

Answers Not Checked	Checked & True	Checked & Not True
1.0 CHF	4.0 CHF	0.0 CHF

Confirm

Figure B.1: Screenshots of the Interface for Stage 3

The decision problem started with a screen that showed only three main answers in colored squares and a blank payment table at the bottom. When choosing the first main answer, "I would like to leave this question unanswered," or the second main answer, "I am not using any social media accounts," a subject earned 1 CHF in all three cases, regardless of whether the random check took place or not, because these two answers are unverifiable.³⁴ If a subject chose the third answer, "I am using following account(s), and I'm sure I can log in," the screen would then show a table with various

³⁴ Notice that subjects were indifferent between choosing answers 1 and 2 and could only earn additional money when choosing the answer 3. This design gives subjects who used some social media accounts but did not want to be randomly checked a higher incentive to honestly indicate that they would like to leave the question answered, instead of misreporting that they are not using any social media accounts. Allowing subjects to leave a question unanswered leads to data attrition (9 out of 216 subjects in this question, and 18 out of 216 subjects leave at least one question unanswered), but the reported data is expected to be less noisy.

social media accounts and choices with different degrees of content sharing behaviors.

In this case, Subjects were required to indicate one answer for each social media account and would see an increment of 0.5 CHF of the payoff under the case "Checked and True" when choosing a verifiable answer (either "I create public content," "nonpublic contents" or "I don't create content" in this example) for a social media account.³⁵ The "Checked and Not True" payoff was always zero since a subject earned nothing if any answer was found incorrect. Finally, a notice was shown below the main answer to remind subjects that their choices will be verified if the random check takes place. The same procedure was applied to all questions in Stage 3 to incentivize subjects to provide correct information regarding their use of personal information.

³⁵ Since the answer "I don't have it" is not verifiable in the experiment, choosing this answer did not increase the "Checked & True" payment.

Appendix C: Factor Analysis for Daily-life Personal Information Sharing

We conduct the factor analysis using the four variables of real-world data sharing behaviors as inputs, with orthogonal Varimax rotation. The rotated factor loadings, the eigenvalues, the percentages of variance captured by the two factors and the uniqueness of the four variables are summarized in Table C.1.

Following the Kaiser criterion (Kaiser, 1960), we retain these two factors with eigenvalues larger than one that explain a total of 66.59% of the variance. Inspecting the factors provides a clear interpretation. Factor 1 is related to social networking due to its high loadings for *Facebook Public*, the number of public Facebook personal information items (0.8370), and *Social Media Public*, the number of social networking websites for which individuals create public content (0.8271). The social-networking indicator explained 37.89% of the variance. We interpret Factor 2 as representing the exchange of personal information for money or services because of its high loadings for *Memberships*, the number of store club memberships in use (0.8473), and *Location Shared*, sharing one's location with at least some apps (0.6542). The variance explained by Factor 2 is 28.70%.

Table C.1: Factor Analysis for Daily-life Personal Information Sharing Measures

Variable	Rotated Factor Loadings (n=198)		
	Factor1:	Factor2:	Uniqueness
Facebook Public	0.8370	-0.0213	0.2990
Social Media Public	0.8271	0.0400	0.3143
Memberships	-0.1208	0.8473	0.2675
Location Shared	0.3412	0.6542	0.4556
Eigenvalue	1.5157	1.1480	
% of Variance	37.89	28.70	
Total Variance			66.59%

The uniqueness of our four variables is somewhat low overall, with the variable "*Location Shared*" having a mildly more substantial unique variance (45.56%) that is not shared with other variables. This characteristic indicates that our daily-life personal information sharing measures are indeed related to each other, and this set of variables are legitimate for factor analysis.

Finally, we create two standardized indicators of daily-life information sharing domains for each subject using the regression scoring coefficients in Table C.2.

Table C.2: Scoring Coefficients
(Method: regression; based on varimax rotated factors)

Variable	Factor1	Factor2
Facebook Public	0.5598	-0.0849
Social Media Public	0.5484	-0.0302
Memberships	-0.1475	0.7555
Location Shared	0.1758	0.5491

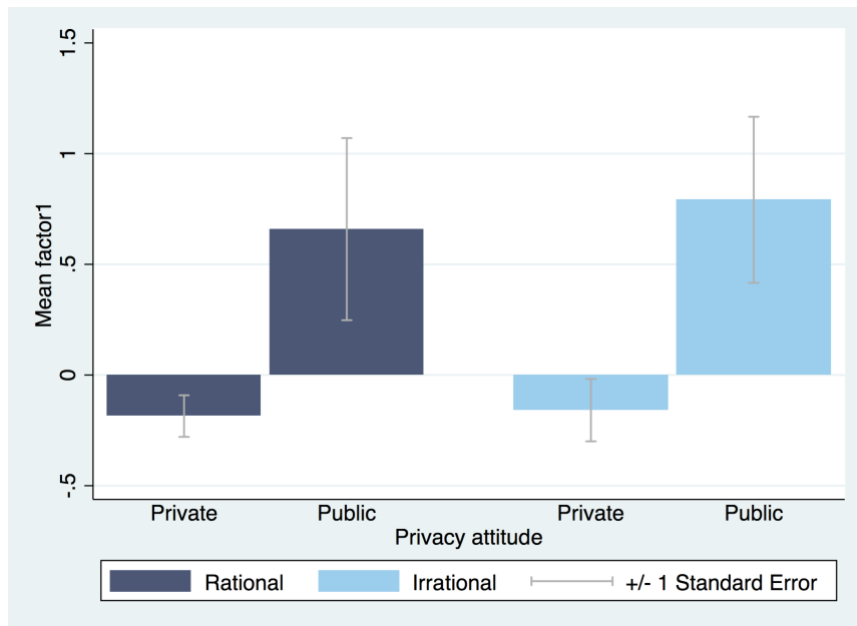
Appendix D: Collective-level Analysis on Domain-specific Daily-life Information Sharing

In this appendix, we test whether the privacy attitude and the rationality in this study correlate to how people behave in the two domains of daily-life personal data sharing: social-networking (Factor 1) and the exchange of personal information for money or services (Factor 2) at the collective level. We find that people classified as the public type in the lab share more personal information publicly in their daily life than the private type in the social-networking domain but not in the domain of the exchange of money and services. Figure D.1(a) shows that this trend holds for both rational and irrational types. Rank-sum tests confirm that public types share significantly more than private types in the social-networking domain for both rational and irrational subjects at the 5% level ($z = -2.170$ for rational types and $z = -2.312$ for irrational types).³⁶ On average, pooling across rational and irrational types, the public type scores 0.7317 in the social-networking domain. A t-test adjusted for the unequal variances shows that this score is significantly higher than the mean score of the private types: -0.1781 at 1% level ($t = -3.2347$). A rank-sum test further shows the difference between the scores of these two types is significant at 0.1% level ($z = -3.285$). Hence, public types share significantly more than private types in the social-networking domain.

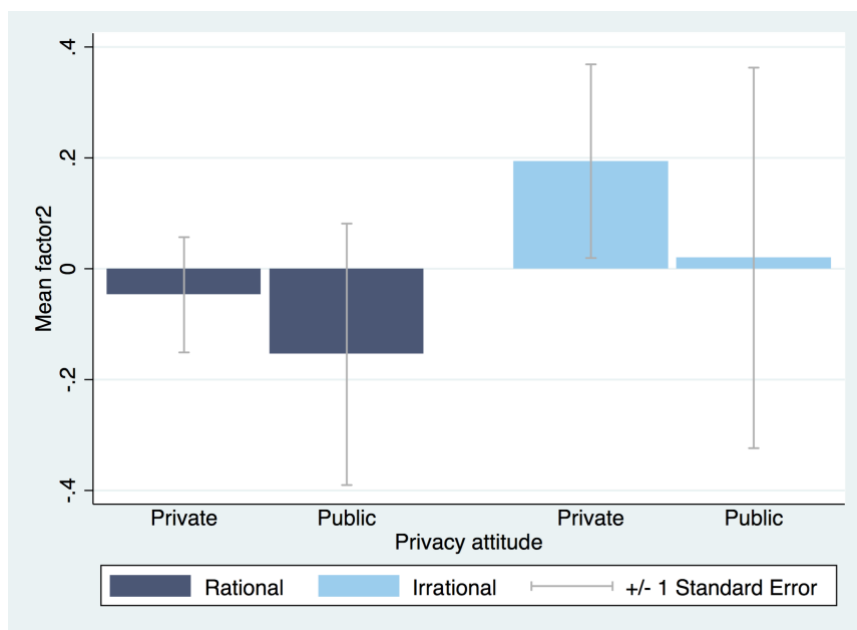
However, Figure D.1(b) indicates that public and private types exhibit no systematic significant differences when sharing personal data for the exchange of money and services. Nevertheless, we observe some evidence that people who are irrational when deciding the privacy levels for different information items in Part 1 give over more personal information for money or services than the rational types. Figure E.1(b) shows this trend for both the private and public types. On average, the mean score of sharing personal information in exchanging for money or services for the *irrational* types (pooling private, IQ+, BF+ and public) is 0.1607. However, this score is only marginally significantly higher than the score for the *rational* types: -0.0918 at the 10% level ($t = -1.6712$, two-tail),³⁷ so we hesitate to make too much of this relationship.

³⁶ Due to the nature of the limited number of observations of public types (with 9 observations of rational-public type and 11 observations of irrational-public type), we employ rank-sum tests to compare the value difference between public and private types.

³⁷ A rank-sum test confirms a similar result ($z = -1.606$).



(a) Social networking



(b) Exchange for money or services

Figure D.1: Domain-specific daily life information sharing

Appendix E: Collective-level Analysis on General Privacy Attitude

When comparing the general privacy attitude between subjects with different choice-based privacy attitudes, Figure E.1 shows that, on average, the private type of both the rational and irrational categories considers general privacy more important than the corresponding public types. Overall, a rank-sum test shows that this difference in self-reported privacy attitudes between the private and the public types is strongly significant at the 0.01% level ($z = 4.178$). This difference is significant for both the rational types (significant at 1 % level, with $z = 3.215$) and for the irrational types (significant at 5 % level, with $z = 2.484$).

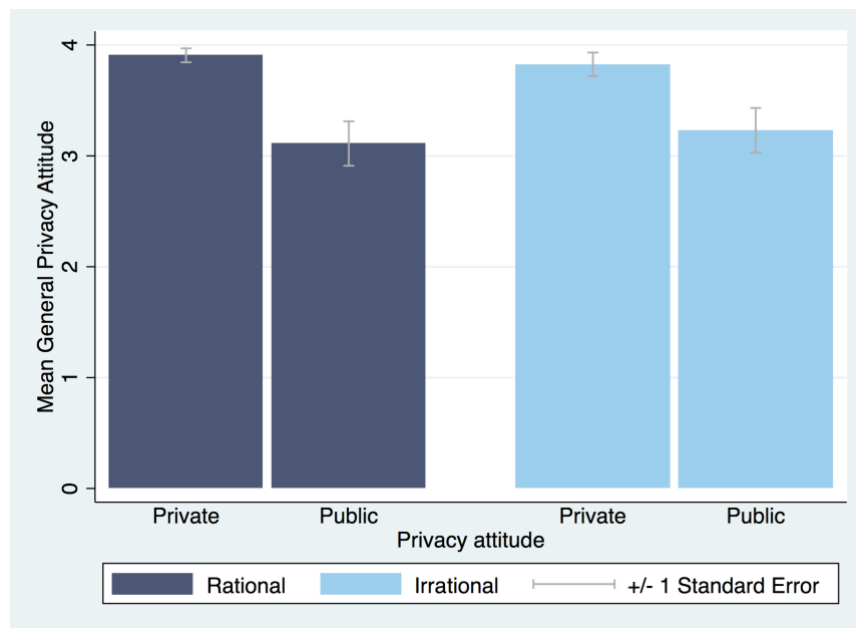


Figure E.1: Self-reported General Privacy Attitudes

Appendix F: Rationality when Making Monetary Choices

Appendix F.1 Classification of Monetary Attitudes

We classify each of our subjects in the follow-up condition into one of four types of monetary attitudes: valuing money (preferring less monetary loss in both accounts), not-valuing-money (preferring more monetary loss in both accounts, (D)) and two account-dependent types (only valuing money in the BLUE account (B) and only valuing money in the RED account (R)). Using subjects' choices in the unrestricted two-dimensional money-attitude questions, we classify each of our subjects into the monetary attitude that generates predictions that are closest to the subject's choices in the two-dimensional monetary attitude questions.

Unlike privacy attitudes, people's monetary attitudes are much more homogenous. The majority (91 out of 94) of subjects in the money condition is classified as valuing money. Figure F.1(a) shows the percentage of subjects of valuing-money types and other types money attitudes, classified as described above, and the proportions of each type who exhibit consistency with GARP. When making monetary choices, 97 percent of subjects value money in both accounts. The remainder are presented as "Others," consisting of around 3 percent of the R type and 1 percent of the not-valuing-money type. Thus, most of our subjects prefer less monetary loss in both accounts in this context, which is consistent with our expectations.

Appendix F.2 Conformity with GARP

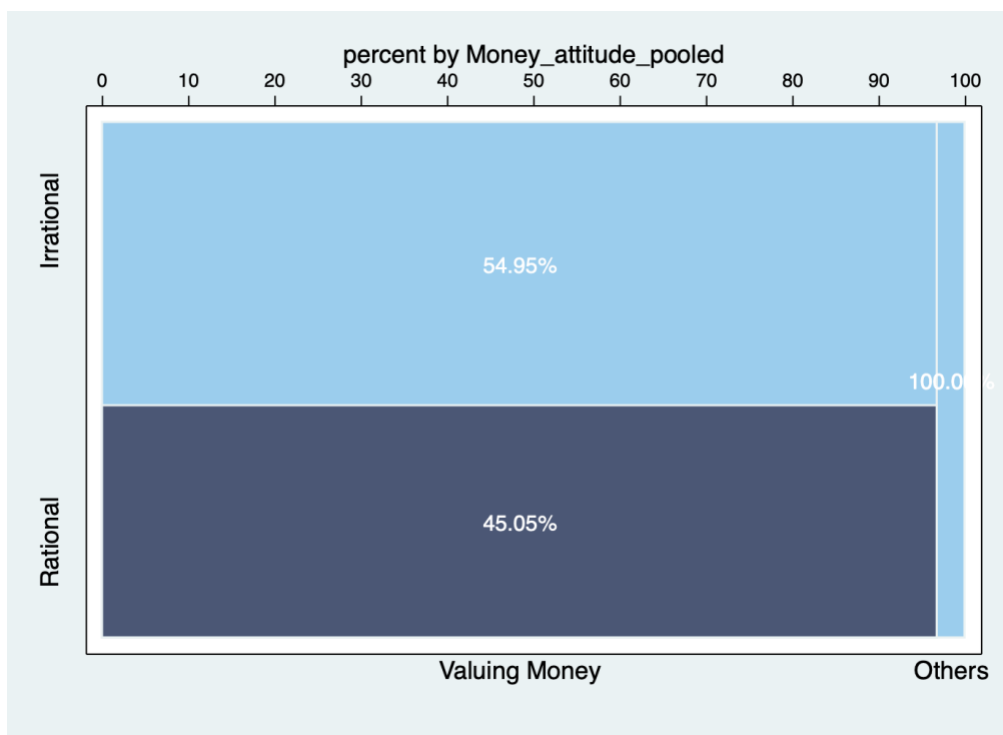
We adapt the rationality test according to the different monetary attitudes—i.e., the direction of preferences on the monetary losses in accounts. We find in total, around 44 percent of subjects exhibit perfect consistency with GARP. As shown in Figure 3(a), the degree of rationality is the highest among individuals we separately classify as valuing-money types: more than 45 percent of the valuing-money subjects are rational. The rational percentages corresponding to other types (R and the not-valuing-money types) are both 0 percent.

Figure F.1(b) shows the e^* scores, arranged in increasing order, for individuals with different monetary attitudes. The average e^* scores for each type are also displayed in Table 2. This score averaged 1.0599 for the valuing-money types (97% of subjects in this condition), which implies that, on average, the monetary budget needs to be reduced by about 6 percent to eliminate all GARP violations by a valuing-money subject. This score is not statistically different from that in our privacy condition.

Among valuing-money types, the proportion of rational subjects in this follow-up study (ranging from 45.1 to 78.0 percent, depending on whether one uses the 0.95 CCEI threshold

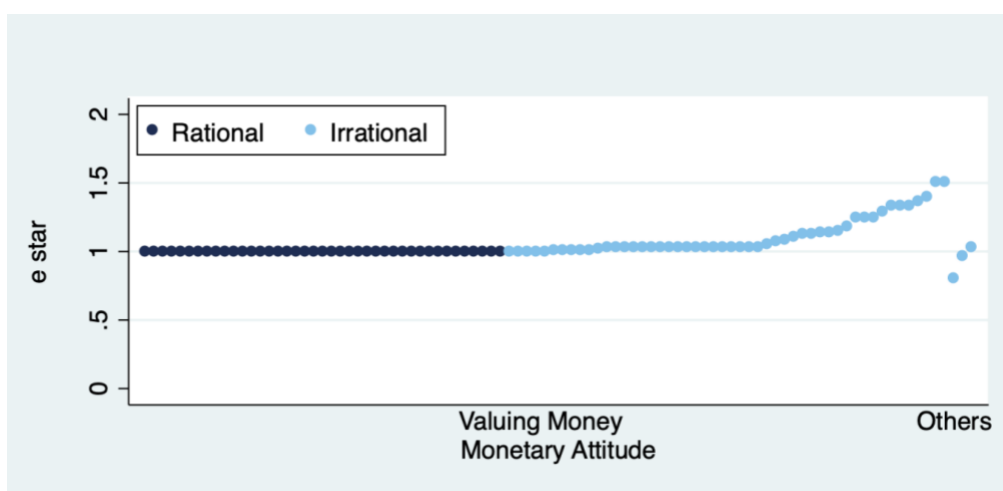
proposed by Varian (1991) to allow for minor violations)³⁸ is more similar to that in most of the previous studies included in Table 2, compared to our privacy study. Given this follow-up condition is studying monetary tradeoffs that were studied in earlier studies, it is not surprising we see this pattern. Similar to the results in our privacy condition, the proportion of individuals who allocate privacy levels rationally in our study does not seem to differ substantially from the rational proportion of individuals facing economic tradeoffs in earlier studies.

³⁸ Depending on whether we require full rationality (zero GARP violations) or allow small violations that forfeit less than 5 percent of their privacy/monetary budgets (the 0.95 threshold of CCEI proposed in Varian (1991)).



(a) Percentage of choices satisfying GARP by privacy type

Notes: The plot depicts the proportion of rational and irrational subjects within each monetary attitude. The width of the bar indicates the percentage of subjects of the corresponding monetary attitude.



(b) Efficiency score: CCEI (e^*)

Notes: The scatterplot depicts the distribution of the efficiency measure, e^* , for subjects with different monetary attitudes. Each dot represents the e^* of one subject. Within each attitude, rational subjects (subjects with no GARP violations) are plotted first with navy dots. The e^* of irrational subjects are sorted in ascending order, represented by light blue dots.

Figure F.1: Rationality Measures for Monetary Choices

Appendix G: Instructions

Appendix G.1 Privacy Experiment

Welcome

This experiment is about decision making. You will be paid for your participation, and the amount of money you earn will be determined by your decisions and also partly by chance. The entire experiment lasts no more than 2 hours.

For completing this experiment, you receive a standard payment of CHF 40. However, you might add to this payment during this experiment. Your final payment will range from CHF 40 to possibly more than CHF 100. Please pay attention to the instructions; this will help you make sound decisions and earn a greater amount of money.

The experiment has three stages. You will now proceed to Stage 1. As in every experiment, you may stop participating at any point. However, if you decide to suspend your participation, you will only receive CHF 20 after completing the shorter version of this experiment.

Stage 1: Specifying 20 most preferred uses of your personal information

In this stage, you will see 20 decision problems. In each decision problem you will specify your most preferred use of the personal information contained in your assessment reports, in the form of "report-viewing combinations."

In each decision problem, you will see different possible numbers of viewers of your reports, by using your slider or sliders on the screen. Your task is to choose your most preferred use of your personal information from all the possibilities. Each of the combinations chosen in Stage 1 will be equally likely to be selected to determine the use of your personal information at the end of the experiment, regardless of what you choose. Moreover, the numbers of viewers you choose will NOT influence the randomly drawn offer price for selling your personal information. Therefore, it is in your best interest to select the report-viewing combination that you would most prefer to have implemented, rather than trying to select a different one in the hope that it will give you more money.

Specifically, choosing your most preferred combination from all the possibilities will give you the following two advantages. First, you can guarantee that your most preferred combination will be one of the 40 combinations that may determine the use of your personal information at the end of the experiment. Second, the more you prefer a combination, the less likely you will be willing to give up money to avoid having your information used in that

manner. Hence, you can expect to earn more money at the end of the experiment by selecting the combination that you most prefer in every case.

This stage consists of two parts: Stage 1A and Stage 1B. The choice interface will work slightly differently in each part. Please pay attention to the detailed instructions on how the interface works in each part.

In the following screens, you will be given a quiz to make sure you understand how Stage 1 works before starting it. Please answer each of the questions before proceeding.

(Subjects then saw one comprehension question in each screen; explanation will be shown on the screen if the wrong answer was chosen. Subjects must choose a correct answer to move on to the next screen.)

Q1: How does the number of viewers you choose in Stage 1 affect the randomly drawn offer price for selling your personal information at the end of the experiment?

- I may receive a higher price for selling my information when choosing more viewers for my report(s).
- The numbers of viewers I choose will never influence the randomly drawn offer price I receive.

Explanation: You will not receive a higher offer price by selecting more or fewer viewers.

Q2: How does the number of viewers you choose in Stage 1 affect the possible price range for the randomly drawn offer price?

- I may receive a range with higher offer prices when choosing more viewers for my report(s).
- The possible price range is fixed-- the number of viewers I choose cannot affect it.

Explanation: The possible price range is fixed and all possible values in this range are equally likely to be the offer price.

Q3: Which of the following is in your best interest?

- Choose a combination that is acceptable but less preferable-- this will likely earn me more money.

- Choose the combination that I most prefer-- this will likely earn me more money than choosing a less preferable one.

Explanation: Choosing a less preferable combination means that you may end up giving up money to avoid implementing it.

Stage 1A: Specifying preferred uses of your personal information

This part consists of 4 decision problems. In each decision problem, you choose your most preferred use of your personal information, separately for EACH report. That is, you choose the number of viewers that you most prefer to view each assessment report, independently of how many will view the other report. Once you set the number of viewers for each report, this will create a report-viewing combination that corresponds to a possible use of your personal information.

Two examples of your decision screen in this part appear below.

Stage 1A: Example
Choose your most preferred use of your personal information

In this choice, you select:
Between 0 and 100 viewers for your Intelligence Score
(The viewers of your Body Composition is fixed at 0.)
Move pointer along the bar(s) to select the preferred use.
(Left click to choose, right click to cancel.)

YOUR NAME
YOUR BODY COMPOSITION INFORMATION
0 viewers

YOUR NAME
YOUR INTELLIGENCE INFORMATION

Intelligence Score: _____

My most preferred use of my personal information:
Body Composition report: 0 viewers
Intelligence Score report: _____ viewers

NOTE: Choose the report-viewing combination that you prefer, to ensure it will be a possible use of your personal information.
The numbers of viewers in the chosen combination will not influence the randomly drawn price for selling your personal information.
Every chosen combination will be one of the 40 possible uses of your personal info. Every possible use is equally likely to be selected.

Stage 1A: Example
Choose your most preferred use of your personal information

In this choice, you select SEPARATELY:
Between 0 and 100 viewers for your Body Composition
Between 0 and 100 viewers for your Intelligence Score
Move pointer along the bar(s) to select the preferred use.
(Left click to choose, right click to cancel.)

YOUR NAME
YOUR BODY COMPOSITION INFORMATION

YOUR NAME
YOUR INTELLIGENCE INFORMATION

Body Composition: _____

Intelligence Score: _____

My most preferred use of my personal information:
Body Composition report: _____ viewers
Intelligence Score report: _____ viewers

NOTE: Choose the report-viewing combination that you prefer, to ensure it will be a possible use of your personal information.
The numbers of viewers in the chosen combination will not influence the randomly drawn price for selling your personal information.
Every chosen combination will be one of the 40 possible uses of your personal info. Every possible use is equally likely to be selected.

- The example on the left corresponds to the case in which the number of viewers of your Body Composition report is fixed at 0 viewers, and you can choose between 0 and 100 viewers for your Intelligence Score report. This means that your Body Composition report will not be shown to any viewers if this report-viewing combination is selected to determine the use of your personal information. In this case, you do not see the bar corresponding to your Body Composition report and you would only choose your preferred number of viewers for your Intelligence Score report.

- The example on the right corresponds to the case in which you can choose SEPARATELY between 0 and 100 viewers for your Body Composition report, and between 0 and 100 viewers for your Intelligence Score report.

To start a decision problem, move your mouse to any point on one of the slider bars. Then the number of viewers for the indicated report, corresponding to that point, will appear. Move your pointer along each bar to explore available choices and find your preferred number

of viewers for the corresponding report. Notice that the numbers of bars, the numbers of viewers on the bars, and how the numbers of viewers for each report increase or decrease from point to point may vary across decision problems.

When you are ready to make your decision, please left click your mouse on the corresponding point on the slider bar to indicate your most preferred number of viewers for that report. Then, your preferred report-viewing combination will be automatically entered in the answer space on your screen. Below, you see two examples.

Stage 1A: Example
Choose your most preferred use of your personal information

In this choice, you select:
Between 0 and 100 viewers for your Intelligence Score
(The viewers of your Body Composition is fixed at 0.)
Move pointer along the bar(s) to select the preferred use.
(left click to choose; right click to cancel)



75 viewers



0 viewers



75 viewers

My most preferred use of my personal information:
Body Composition report: 0 viewers
Intelligence Score report: 75 viewers

Confirm

NOTE: Choose the report-viewing combination that you prefer, to ensure it will be a possible use of your personal information.
The numbers of viewers in the chosen combination will not influence the randomly drawn price for selling your personal information.
Every chosen combination will be one of the 40 possible uses of your personal info. Every possible use is equally likely to be selected.

Stage 1A: Example
Choose your most preferred use of your personal information

In this choice, you select SEPARATELY:
Between 0 and 100 viewers for your Body Composition
Between 0 and 100 viewers for your Intelligence Score
Move pointer along the bar(s) to select the preferred use.
(left click to choose; right click to cancel)



0 viewers



0 viewers



0 viewers



0 viewers

My most preferred use of my personal information:
Body Composition report: 0 viewers
Intelligence Score report: 0 viewers

Confirm

NOTE: Choose the report-viewing combination that you prefer, to ensure it will be a possible use of your personal information.
The numbers of viewers in the chosen combination will not influence the randomly drawn price for selling your personal information.
Every chosen combination will be one of the 40 possible uses of your personal info. Every possible use is equally likely to be selected.

- The example on the left corresponds to the case in which the number of viewers of your Body Composition report is fixed at 0 and you choose 75 viewers for your Intelligence Score report. This decision means that you prefer having 75 viewers for your Intelligence Score report over ANY other available numbers of viewers in this decision problem. This includes ALL numbers of viewers greater than 75 (such as 100) and ALL numbers of viewers fewer than 75 (such as 0).
- The example on the right corresponds to the case in which you choose 0 viewers for your Body Composition report and 0 viewers for your Intelligence Score report. This decision means that you prefer having 0 viewers for your Body Composition report and Intelligence Score report over ANY other available numbers of viewers in this decision problem. This includes ALL numbers of viewers greater than 0 (such as 100), for either report.

Of course, the numbers of viewers that you select separately for each report depends on how you want your personal information to be used. You are free to make any choice in the range of possible choices separately for each report. However, as we note earlier, it is in your best interest to always select the combination that you find most preferable in all decision problems.

If you want to cancel your choice, please right click your mouse to continue exploring available choices.

After choosing your most preferred numbers of viewers in a decision problem, confirm your decision by clicking on the "confirm" button. You will then proceed to the next decision problem.

For each of the first two decision problems in Stage 1A, you will see the decision screen twice. We do this to make sure everyone understands the choices they are making, before proceeding to the remaining decision problems. In the first two decision problems, you will see the decision screen and make your choice. After you select a combination, an extra screen will then explain to you, in detail, the possible consequences of your choice. You will then return to the same decision screen in order to enter your final choice. This will be the procedure for the first and second decision problems, regardless of what you choose. However, for the remainder of the decision problems in Stage 1, you will only encounter each decision problem once and cannot change your answer after leaving the decision screen. So please choose carefully and finalize your decision before clicking the confirm button.

Note: The numbers of viewers you choose for a combination will not influence the randomly drawn offer price for selling the use of your personal information. Therefore, it is in your best interest to select the report-viewing combination that you would most prefer to have implemented, rather than trying to select a different one in the hope that it will give you more money.

Stage 1B: Specifying preferred uses of your personal information

This part consists of 16 decision problems. In each decision problem, you now choose your most preferred use of your personal information, jointly for BOTH reports. That is, you simultaneously choose the combination of numbers of viewers that you most prefer to view each assessment report. Once you set the numbers of viewers for both reports, this will create a report-viewing combination that corresponds to a possible use of your personal information.

An example of your decision screen in this part appears below.

Stage 1B: Example

Choose your most preferred use of your personal information

In this choice, you select JOINTLY:
Between 0 and 100 viewers for your Body Composition
Between 0 and 100 viewers for your Intelligence Score
(Tradeoff: 2 Body Composition = 1 Intelligence Score)
Move pointer along BOTH bars to select your preferred use.
(left click to choose; right click to cancel)

Body Composition
Intelligence Score

YOUR NAME
YOUR BODY COMPOSITION INFORMATION
0 100

YOUR NAME
YOUR INTELLIGENCE INFORMATION
0 100

My most preferred use of my personal information:
Body Composition report: ___ viewers
Intelligence Score report: ___ viewers.

NOTE: Choose the report-viewing combination that you prefer, to ensure it will be a possible use of your personal information.
The numbers of viewers in the chosen combination will not influence the randomly drawn price for selling your personal information.
Every chosen combination will be one of the 40 possible uses of your personal info. Every possible use is equally likely to be selected.

In this example, you can choose JOINTLY between 0 and 100 viewers for your Body Composition report, and between 50 and 0 viewers for your Intelligence Score report. Notice that, in this example, reducing the number of viewers for your Body Composition report by 2 increases the number of viewers for your Intelligence Score report by 1. This tradeoff rate may vary across decision problems, but your decision screen will always inform you of the tradeoff for every problem.

To start a decision problem, move your mouse to any point on one of the slider bars. Then the numbers of viewers for BOTH reports, corresponding to that point, will appear. Move your pointer along bars to explore available choices and find your most preferred combined numbers of viewers for the corresponding reports. Remember that the numbers of viewers on the bars and how the numbers of viewers for each report increase or decrease from point to point may vary across decision problems.

When you are ready to make your decision, please left click your mouse on the corresponding point on the slider bars to indicate your most preferred combined numbers of viewers for both reports. Then, your preferred report-viewing combination will be automatically entered in the answer space on your screen.

Below, you see an example that corresponds to the case in which you choose 36 viewers for your Body Composition report and 32 viewers for your Intelligence Score report.

Stage 1B: Example
Choose your most preferred use of your personal information

In this choice, you select JOINTLY:
Between 0 and 100 viewers for your Body Composition
Between 50 and 0 viewers for your Intelligence Score
(Tradeoff: 2 Body Composition = 1 Intelligence Score)
Move pointer along BOTH bars to select your preferred use.
(Left click to choose; right click to cancel)

36 viewers
Body Composition

32 viewers
Intelligence Score

YOUR NAME
YOUR BODY COMPOSITION INFORMATION
36 viewers

YOUR NAME
YOUR INTELLIGENCE INFORMATION
32 viewers

My most preferred use of my personal information:
Body Composition report: 36 viewers
Intelligence Score report: 32 viewers

Confirm

NOTE: Choose the report-viewing combination that you prefer, to ensure it will be a possible use of your personal information.
The numbers of viewers in the chosen combination will not influence the randomly chosen prior for selling your personal information.
Every chosen combination will be one of the 40 possible uses of your personal info. Every possible use is equally likely to be selected.

This decision means that you prefer having the combination with 36 viewers for your Body Composition report and 32 viewers for your Intelligence Score report over ANY other available combination in this decision problem. This includes ALL combinations that consist of more viewers for your Body Composition report and fewer viewers for your Intelligence Score report (such as 100 viewers for your Body Composition report and 0 viewers for your Intelligence Score report) and ALL combinations that consist of fewer viewers for your Body Composition report and more viewers for your Intelligence Score report (such as 0 viewers for your Body Composition report and 50 viewers for your Intelligence Score report).

Of course, the numbers of viewers that you select jointly for both reports depends on how you want your personal information to be used. You are free to make any choice in the range of possible combined choices for both reports. However, as we note earlier, it is in your best interest to always select the combination that you find most preferable in all decision problems.

If you want to cancel your choice, please right click your mouse to continue exploring available choices.

After choosing your most preferred numbers of combined viewers in a decision problem, confirm your decision by clicking on the "confirm" button. You will then proceed to the next decision problem.

Remember that for all of the remaining 16 decision problems, you will only see the decision screen once. You cannot change your answer after leaving the decision screen. So please choose carefully and finalize your decision before clicking the confirm button.

Note: The numbers of viewers you choose for a combination will not influence the randomly drawn offer price for selling the use of your personal information. Therefore, it is in your best interest to select the report-viewing combination that you would most prefer to have implemented, rather than trying to select a different one in the hope that it will give you more money.

Stage 2: Reviewing and selling the use of your personal information

In this stage, you will review all 40 report-viewing combinations that may be selected to determine the use of your personal information contained in the assessment reports. You chose 20 combinations in Stage 1, and the computer chose the other 20. Each of the 40 report-viewing combinations you will encounter in Stage 2 is equally likely to be selected to determine the use of your personal information at the end of this experiment.

In each decision problem, you will specify which prices you are willing and not willing to accept in exchange for selling your personal information so that it is used in the manner specified by the report-viewing combination. Specifically, you will indicate the lowest price that you are willing to accept, meaning that you accept that price or any price that is higher.

In each decision problem, you will see a possible use of your personal information: how many random viewers at UZH or ETH will see each of your reports. You will then specify the lowest price, between CHF 0 and CHF 40 that you are willing to accept to sell your personal information and have it used in this manner. If you are unwilling to accept any price between CHF 0 and CHF 40, you may also indicate that the lowest price is "more than CHF 40," which guarantees that you will not sell your personal information at any possible price.

To choose a specific amount, move your pointer to the corresponding point on the slider bar. This will highlight all of the values that are at least as high as the value you select, which means you consider any price offer in this range to be acceptable. When you are ready to make your decision, left click on the corresponding point on the bar, and the amount will be automatically entered in the answer space on your screen. If you want to cancel your choice, please right click your mouse.

The use of your personal information

At the end of this experiment, one of the 40 report-viewing combinations in Stage 2 will be randomly selected. Every combination in Stage 2 is equally likely to be selected. The computer will also randomly select a price to offer you for using your personal information according to that combination. All prices between CHF 0 and CHF 40 are equally likely to be selected. The lowest acceptable price that you indicated for the selected report-viewing combination and the randomly drawn offer price will determine whether or not you sell your personal information and allow it to be used in the manner specified in that combination.

- If the randomly drawn offer price is lower than the lowest acceptable price you specified, then you will not sell your personal information to be used as specified in the selected report-viewing combination. The randomly drawn offer price will not be added to your payment for this experiment, and you will shred all three envelopes with your assessment reports and pictures in them at the end of the experiment.
- If the randomly drawn offer price is greater than or equal to the lowest acceptable price you specified, then you will sell your personal information to be used as specified in the selected report-viewing combination. The randomly drawn offer price will be added to your payment for this experiment, and your assessment report(s), with your name, signature and profile photo will be shown to the corresponding number of UZH or ETH viewers.

NOTE

In the following screens for Stage 2, you will specify the lowest price at which you are willing to sell your personal information contained in the assessment reports and allow it to be used as specified in the presented report-viewing combination. Please choose the lowest acceptable prices carefully, since one of them will determine whether or not your personal information will be sold and used in the manner specified by the report-viewing combination and whether the randomly drawn offer price will be added to your payment.

Also note that your decision of the lowest price you are willing to accept does not affect the randomly drawn offer price that you end up receiving, only whether or not you end up being paid the randomly drawn offer price in exchange for the use of your personal information. Therefore, it is in your best interest to honestly indicate the smallest amount of money, such that you would like to sell your personal information when receiving a price greater than or equal to that amount and would like to receive zero and not sell your personal information for any lower price. Misrepresenting the lowest price you are willing to accept may lead to outcomes that you regret.

For example, suppose your actual lowest acceptable price for a certain use is CHF 10, but you instead state that the lowest price you are willing to accept is CHF 30. Then, if the computer randomly draws a price of CHF 20, you will end up not receiving this amount and not selling your personal information, even though you would have preferred to sell it for any price greater than CHF 10, including a price of CHF 20.

As another example, suppose your actual lowest acceptable price for a certain use is CHF 30, but you instead state that the lowest price you are willing to accept is CHF 10. Then, if the computer randomly draws a price of CHF 20, you will end up receiving CHF 20 and selling your personal information, even though you would have preferred not to sell it for any price below CHF 30, including a price of CHF 20.

In the following screens, you will be given a quiz to make sure you understand how Stage 2 works before starting it. Please answer each of the questions before proceeding.

(Subjects then saw one comprehension question in each screen; explanation will be shown on the screen if a wrong answer was chosen. Subjects must choose a correct answer to move on to the next screen.)

Q1: Suppose you make a decision as shown in the picture below, and the randomly drawn price is CHF 20. What will happen if this report-viewing combination is randomly selected?

Stage 2: Example

Choose the lowest price at which you are willing to sell your personal information according to the use below

Move your pointer along the bar to set the lowest acceptable price.
(left click to choose; right click to cancel)

0 CHF 30 > 40

lowest acceptable price

YOUR NAME



YOUR BODY COMPOSITION INFO

10 20 30 40 50 60 70 80 90 100

YOUR NAME



YOUR INTELLIGENCE INFO

10 20 30 40 50 60 70 80 90 100

52 viewers23 viewers

I would like to receive at least CHF 30 for using my personal information as follows:

Body Composition report: 52 viewers

Intelligence Score report: 23 viewers.

Confirm

Your personal information will be SOLD for the use indicated above only when the randomly drawn offer price is higher than or equal to the lowest acceptable price you choose.

All prices between CHF 0 and CHF 40 are equally likely to be selected as the randomly drawn offer price.

If SOLD: you will receive the randomly drawn offer price in exchange for the use indicated above.

- My personal info. will be sold and used accordingly, and I will receive CHF 30.
- My personal info. will be sold and used accordingly, and I will receive CHF 20.
- My personal info. will not be sold and used accordingly, and I will receive CHF 0.

Explanation: Your personal info. will not be sold and used accordingly-- the drawn price (CHF 20) is lower than your lowest acceptable price (CHF 30).

Q2: Suppose you make a decision as shown in the picture below, and the randomly drawn price is CHF 20. What will happen if this report-viewing combination is randomly selected?

Stage 2: Example

Choose the lowest price at which you are willing to sell your personal information according to the use below

Move your pointer along the bar to set the lowest acceptable price.
(left click to choose; right click to cancel)

CHF 0  > 40
lowest acceptable price

YOUR NAME



YOUR BODY COMPOSITION INFO

52 viewers

YOUR NAME



YOUR INTELLIGENCE INFO

23 viewers

I would like to receive at least CHF 0 for using my personal information as follows:

Body Composition report: 52 viewers

Intelligence Score report: 23 viewers.

Confirm

Your personal information will be SOLD for the use indicated above only when the randomly drawn offer price is higher than or equal to the lowest acceptable price you choose.

All prices between CHF 0 and CHF 40 are equally likely to be selected as the randomly drawn offer price.

If SOLD: you will receive the randomly drawn offer price in exchange for the use indicated above.

- My personal info. will be sold and used accordingly, and I will receive CHF 0.
- My personal info. will be sold and used accordingly, and I will receive CHF 20.
- My personal info. will not be sold and used accordingly, and I will receive CHF 0.

Explanations 1: If your personal info. is sold and used accordingly, you will receive the drawn offer price but not your lowest acceptable price.

Explanations 3: Your personal info. will be sold and used accordingly-- the drawn price (CHF 20) is higher than your lowest acceptable price (CHF 0).

Q3: Suppose you make a decision as shown in the picture below. What will happen if this report-viewing combination is randomly selected?

Stage 2: Example

Choose the lowest price at which you are willing to sell your personal information according to the use below

Move your pointer along the bar to set the lowest acceptable price.
(left click to choose; right click to cancel)

0 more than CHF 40
 > 40
lowest acceptable price

The maximum price the computer may select is CHF 40.
Choosing "more than CHF 40" as the lowest acceptable price:
you ensure your personal info. will not be sold for this use;
you will receive no extra payments if this is the selected use.

YOUR NAME

YOUR BODY COMPOSITION INFO

52 viewers

YOUR NAME

YOUR INTELLIGENCE INFO

23 viewers

I would like to receive more than CHF 40 for using my personal information as follows:

Body Composition report: 52 viewers
Intelligence Score report: 23 viewers.

Confirm

Your personal information will be SOLD for the use indicated above only when the randomly drawn offer price is higher than or equal to the lowest acceptable price you choose.

All prices between CHF 0 and CHF 40 are equally likely to be selected as the randomly drawn offer price.

If SOLD: you will receive the randomly drawn offer price in exchange for the use indicated above.

- My personal info. will be sold and used accordingly, I will receive more than CHF 40.
- I don't know, because I don't know the randomly drawn price.
- My personal info. will not be sold and used accordingly, and I will receive CHF 0.

Explanation for options 1 and 2: Your personal info. will not be sold and used accordingly-- the highest possible drawn price is CHF 40.

Q4: Suppose you make a decision as shown in the picture below, and the randomly drawn price is CHF 20. What will happen if this report-viewing combination is randomly selected?

Stage 2: Example

Choose the lowest price at which you are willing to sell your personal information according to the use below

Move your pointer along the bar to set the lowest acceptable price. (left click to choose; right click to cancel)

0 CHF 20 > 40

lowest acceptable price

YOUR NAME



YOUR BODY COMPOSITION INFO

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40

YOUR NAME



YOUR INTELLIGENCE INFO

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40

52 viewers23 viewers

I would like to receive at least CHF 20 for using my personal information as follows:

Body Composition report: 52 viewers

Intelligence Score report: 23 viewers.

Confirm

Your personal information will be SOLD for the use indicated above only when the randomly drawn offer price is higher than or equal to the lowest acceptable price you choose.

All prices between CHF 0 and CHF 40 are equally likely to be selected as the randomly drawn offer price.

If SOLD: you will receive the randomly drawn offer price in exchange for the use indicated above.

- My personal info. will not be sold and used accordingly, and I will receive CHF 20.
- My personal info. will be sold and used accordingly, and I will receive CHF 20.
- My personal info. will not be sold and used accordingly, and I will receive CHF 0.;

Explanation for options 1 and 3: Your personal info. will be sold and used accordingly-- the drawn price (CHF 20) is equal to your lowest acceptable price (CHF 20).

Options for selling the use of your personal information

In Stage 2, you will review all 40 report-viewing combinations that may be selected to determine the use of your personal information contained in the assessment reports. You can indicate the lowest price you are willing to accept for selling your personal information to be used as specified in each of the possible report-viewing combinations.

You may decide to skip this stage. If you choose to skip Stage 2, you give up the opportunity to review possible uses of your personal information and specify the lowest acceptable price for selling your personal information. Hence, the computer will not present report-viewing combinations to you and will specify CHF 0 as the minimum amount for any potential report-viewing combinations in Stage 2. That is, you essentially give permission for any of the 40 possible uses of your personal information that the computer may select from Stage 2, in return for receiving any potential randomly drawn offer price between CHF 0 and CHF 40.

Please indicate which option for determining the use of your personal information you would like to have. The rest of this experiment will proceed accordingly.

☐ I would like to complete Stage 2. I care about having control over selling the use of my personal information.

I hereby only give permission to sell the use of my personal information for which I will receive at least the minimum amount I specify in Stage 2, after reviewing how my information will be used in every possible case.

☐ I would like to skip Stage 2. I do not care about having control over selling the use of my personal information.

I hereby give permission to sell the use of my personal information for which I will receive an amount greater than or equal to CHF 0, without knowing in advance how my information will be used in all possible cases.

Stage 3: Earning Bonus Payments by Answering Verifiable Questions

In this final stage, you have the opportunity to earn bonus payments by answering verifiable questions regarding your real-life behavior. The bonus payments you receive will depend on your answers and on whether or not the experimenters can verify the truthfulness of your responses. At the end of the experiment, you will be asked to toss a 10-sided die. If you roll a zero, then a random check will be conducted to verify all your answers. Please answer all questions honestly, since you will earn the highest bonus payments when doing so.

For each question, the bottom of the screen will display your bonus payments if you are not checked (if you roll 1 through 9) and if you are checked for honesty (if you roll 0). You earn CHF 1 for answering each main question honestly. For each additional component in your answer that can be verified to be true at the end of the experiment, you earn an additional CHF 0.5 if you are randomly checked and that particular component is verified to be true. However, if you are caught providing any dishonest answer for a question (or any answer that cannot be verified), then you forfeit all bonus payments from this stage. Hence, to earn the highest possible bonus payment, please provide as many verifiable components as possible and answer questions honestly.

Questionnaire

You are now close to the end of this experiment. Please complete a brief questionnaire before receiving your payment.

For questions without a confirm button, please type your answer and it will appear on the screen. Press the "Enter" key for a line break and press the "Esc" key to finish answering and move on to the next question.

Appendix G.2 Abbreviated Experiment

The instructions for the abbreviated experiment consist of the welcome screen below and instructions for Stages 3 and 4 in Appendix H.1

Welcome

This experiment is about decision making. You will be paid for your participation, and the amount of money you earn will be determined by your decisions and also partly by chance. The entire experiment should last no more than 1 hour.

For completing this experiment, you receive a standard payment of CHF 20. However, you might add to this payment during this experiment. Your final payment will range from CHF 20 to CHF 20+bonus payments. Please pay attention to the instructions; this will help you make sound decisions and earn a greater amount of money.

Appendix G.3 Follow-up Monetary Experiment

Welcome

This experiment is about decision making. You will be paid for your participation, and the amount of money you earn will be determined by your decisions and also partly by chance. The entire experiment lasts no more than 1 hour.

For completing this experiment, you receive a standard initial payment of CHF 40. During the experiment, the majority of your earnings will be denominated in points, with an exchange rate of CHF 1 = 5 points.

The points you receive in this experiment will be placed in two accounts: a BLUE account and a RED account. Both accounts have a starting balance of 200 points in them. At the end of the study, the computer will randomly select only one of the two accounts to count for your payment. Each account is equally likely to be selected, but you will not know which account will be the one that is selected until the end of the study. During the experiment, you will make choices that may subtract points from your two accounts. You will also make some choices that might give you additional bonus earnings.

Your final payment will range from CHF 20 to possibly CHF 60. Please pay attention to the instructions; this will help you make sound decisions and earn a greater amount of money.

The experiment has two stages. You will now proceed to Stage 1.

Stage 1: Specifying 20 most preferred distributions of losses

In this stage, you will see 20 decision problems. In each decision problem, you will distribute losses between your two accounts: the BLUE account and the RED account. When facing a decision problem, you can see all possible distributions of possible losses for that decision problem in points by using your slider or sliders on the screen. Your task is to choose your most preferred distribution of possible losses from all the possibilities.

Your payments from this stage will be determined as follows. At the end of the experiment, the computer will randomly select one decision problem and will randomly select one of the two accounts, the BLUE account or the RED account. Each decision problem in Stage 1 will be equally likely to be selected, regardless of what you choose.

Within the selected decision problem, both accounts have an equal probability of being selected. According to your choice in the selected decision problem, the points lost that you distribute to the account that is selected will determine your payment for the experiment. The points lost that you distribute to the other account will not influence your earnings.

This stage consists of two parts: Stage 1A and Stage 1B. The choice interface will work slightly differently in each part. Please pay attention to the detailed instructions on how the interface works in each part.

Stage 1A: Specify possible losses separately for each account

This part consists of 4 decision problems. In each decision problem, you choose your most preferred distribution of possible losses, separately for EACH account. That is, you choose the possible loss in points for your BLUE account independently of the possible loss in points for your RED account.

Two examples of your decision screen in this part appear below.

Stage 1A: Example
Choose your most preferred distribution of possible losses across two accounts

In this choice, you select:
Between 0 and 100 points for your RED account.
(The loss to your BLUE account is fixed at 0.)
[Slide slider along the bar to select the preferred distribution.
(You click to choose, right click to cancel.)]

RED ACCOUNT	BLUE ACCOUNT
Prob.=0.5	Prob.=0.5

- 0 points

My most preferred distribution of possible losses:
RED account : 0 points Prob.=0.5
BLUE account : 0 points Prob.=0.5

NOTE: Remember that you will only win 20 points in each account. At the end of the experiment, only one account will be randomly selected to determine your payment. The earnings are not points. CH 1

Stage 1A: Example
Choose your most preferred distribution of possible losses across two accounts

In this choice, you select SEPARATELY:
Between 0 and 100 points for your RED account.
Between 0 and 100 points for your BLUE account.
[Slide slider along the bar to select the preferred distribution.
(You click to choose, right click to cancel.)]

RED ACCOUNT	BLUE ACCOUNT
Prob.=0.5	Prob.=0.5

My most preferred distribution of possible losses:
RED account : 0 points Prob.=0.5
BLUE account : 0 points Prob.=0.5

NOTE: Remember that you will only win 20 points in each account. At the end of the experiment, only one account will be randomly selected to determine your payment. The earnings are not points. CH 1

- The example on the left corresponds to the case in which the possible loss for your BLUE account is fixed at 0, and you can choose a possible loss between 0 and 100 points for your

RED account. This means that if this decision problem is selected and the computer randomly selects the BLUE account then no points will be subtracted from your BLUE account and you will receive 200 points. If, instead, the computer randomly selects the RED account then the loss in points that you select will be subtracted from your RED account. In this decision problem, you do not see the bar corresponding to your BLUE account and you only choose your preferred possible loss for your RED account. Nevertheless, both accounts have an equal probability of being selected as the account that counts for this decision problem.

- The example on the right corresponds to the case in which you can choose SEPARATELY a possible loss between 0 and 100 points for your BLUE account, and a possible loss between 0 and 100 points for your RED account. Again, both accounts have an equal probability of being selected as the account that counts for this decision problem. In this case, the loss in the account that is randomly selected would be subtracted from your initial 200 points.

To start a decision problem, move your mouse to any point on one of the slider bars. Then the loss for the indicated account, corresponding to that point, will appear. Move your pointer along each bar to explore available choices and find your preferred possible loss for the corresponding account. Notice that the numbers of bars, the distributions of losses, and how many points are lost for each account along the bars may vary across decision problems.

When you are ready to make your decision, please left-click your mouse on the corresponding point on the slider bar to indicate your most preferred possible losses of points for the two accounts. Then, your preferred distribution of possible losses will be automatically entered in the answer space on your screen. Below, you see two examples.

Stage 1A: Example
Choose your most preferred distribution of possible losses across two accounts

In this choice, you select:
Between 0 and 100 points for your RED account.
Between 0 and 100 points for your BLUE account.
Your selected losses will be subtracted from your initial 200 points.

RED ACCOUNT

Prob.=0.5

-75 points

BLUE ACCOUNT

Prob.=0.5

-0 points

My most preferred distribution of possible losses:

RED account : - 75 points Prob.=0.5
BLUE account : - 0 points Prob.=0.5

Confirm

NOTE: Remember that you start with 200 points in each account. At the end of the experiment, only one account will be randomly selected to determine your payment. The exchange rate is 1 point = CHF 1.

Stage 1A: Example
Choose your most preferred distribution of possible losses across two accounts

In this choice, you select SEPARATELY:
Between 0 and 100 points for your RED account.
Between 0 and 100 points for your BLUE account.
Your selected losses will be subtracted from your initial 200 points.

RED ACCOUNT

Prob.=0.5

-0 points

BLUE ACCOUNT

Prob.=0.5

-0 points

My most preferred distribution of possible losses:

RED account : - 0 points Prob.=0.5
BLUE account : - 0 points Prob.=0.5

Confirm

NOTE: Remember that you start with 200 points in each account. At the end of the experiment, only one account will be randomly selected to determine your payment. The exchange rate is 1 point = CHF 1.

- The example on the left corresponds to the case in which the possible loss for your BLUE account is fixed at 0 points, and you choose a possible loss of 75 points for your RED account. This decision means that you prefer losing 75 points in your RED account over ANY other available choices in this decision problem. This includes ALL losses greater than 75 points (such as losses of 100 points) and ALL losses smaller than 75 points (such as losses of 0 points). If this decision problem is randomly selected, you will receive 200 (200-0) points if the BLUE

account is selected to count, or receive 125 (200-75) points if the RED account is selected to count. Both accounts have an equal probability of being selected as the one that counts.

- The example on the right corresponds to the case in which you choose a loss of 0 points for your BLUE account and a loss of 0 points for your RED account. This decision means that you prefer losing 0 points in your BLUE and RED accounts over ANY other available choices in this decision problem. This includes ALL possible losses greater than 0 (such as losses of 100 points), for either account. If this decision problem is randomly selected, you will receive 200 (200-0) points regardless of which account is selected to count.

If you want to cancel your choice, please right-click your mouse to continue exploring available choices.

After choosing your most preferred distribution of possible losses in a decision problem, confirm your decision by clicking on the "confirm" button. You will then proceed to the next decision problem.

For each of the first two decision problems in Stage 1A, you will see the decision screen twice. We do this to make sure everyone understands the choices they are making, before proceeding to the remaining decision problems. In the first two decision problems, you will see the decision screen and make your choice. After you select a distribution of possible losses, an extra screen will then explain to you, in detail, the possible consequences of your choice. You will then return to the same decision screen in order to enter your final choice. This will be the procedure for the first and second decision problems, regardless of what you choose. However, for the remainder of the decision problems in Stage 1, you will only encounter each decision problem once and cannot change your answer after leaving the decision screen. So please choose carefully and finalize your decision before clicking the confirm button.

In the following screens, you will be given a quiz to make sure you understand how Stage 1 works before starting it. Please answer each of the questions before proceeding.

(Subjects then saw one comprehension question in each screen; explanation will be shown on the screen if the wrong answer was chosen. Subjects must choose a correct answer to move on to the next screen.)

Q1: How does the computer select which decision problem will determine your payment?

- The computer will select the decision problem that minimizes my payment.
- Each decision problem is equally likely to be selected.

Explanation: Your choice in each decision problem has no effect on whether it will be selected.

Q2: Suppose you select to allocate a possible loss of 60 points to your RED account and 100 points to your BLUE account. What will your earnings be if this decision is selected?

- I will lose 160 points from my initial 200 points, so I will receive 40 points.
- One of the accounts will be randomly selected, meaning that I will end up with either $200 - 100 = 100$ or $200 - 60 = 140$ points.

Explanation: The computer will randomly select only one of the two accounts to count for your payment.

Q3: For a selected decision problem, which account will be selected?

- The account with a larger loss will be selected.
- Both accounts are equally likely to be selected.

Explanation: The computer will randomly select only one of the two accounts to count for your payment.

Stage 1B: Specify possible losses jointly for both accounts

This part consists of 16 decision problems. In each decision problem, you now choose your most preferred distribution of possible losses, jointly for BOTH accounts. That is, you choose the loss in points for your BLUE account and the loss in points for your RED account simultaneously. Remember that if a decision problem is selected to count, the computer will randomly select one of the two accounts as the account that counts for that decision problem, and both accounts have an equal probability of being selected.

An example of your decision screen in this part appears below.

Stage 1B: Example
Choose your most preferred distribution of possible losses across two accounts

In this choice, you select **JOINTLY**.
Between 0 and 100 points for your BLUE account.
Between 50 and 0 points for your RED account.
(2 point lost in BLUE account = 1 point lost in RED account)
When you are done, click on the account you prefer to use.
DO NOT click on the account you do not prefer to use.

BLUE ACCOUNT
Prob.=0.5

RED ACCOUNT
Prob.=0.5

My most preferred distribution of possible losses:
 BLUE account : points Prob.=0.5
 RED account : points Prob.=0.5

NOTE: Remember that you start with 100 points in each account. At the end of the experiment, only one account will be randomly selected to determine your payment. The exchange rate is 1 point = CHF 1.

In this example, you can choose JOINTLY a possible loss between 0 and 100 points for your BLUE account, and a possible loss between 50 and 0 points for your RED account. Notice that, in this example, reducing the loss in the BLUE account by 2 points increases the loss in the RED account by 1 point. This tradeoff rate may vary across decision problems, but your decision screen will always inform you of the tradeoff for every problem.

To start a decision problem, move your mouse to any point on one of the slider bars. Then the possible losses for BOTH accounts, corresponding to that point, will appear. Move your pointer along bars to explore available choices and find your preferred distribution of possible losses for the two accounts. Remember that the distributions of losses, and the increase or decrease in points lost in each account as you move the slider may vary across decision problems.

When you are ready to make your decision, please left-click your mouse on the corresponding point on the slider bars to indicate your most preferred distribution of possible losses between the two accounts. Then, your preferred distribution of possible losses will be automatically entered in the answer space on your screen.

Below, you see an example that corresponds to the case in which you choose a possible loss of 36 points for your BLUE account and a possible loss of 32 points for your RED account.

Stage 1B: Example
Choose your most preferred distribution of possible losses across two accounts

In this choice, you select **JOINTLY**.
Between 0 and 100 points for your BLUE account.
Between 50 and 0 points for your RED account.
(2 point lost in BLUE account = 1 point lost in RED account)
When you are done, click on the account you prefer to use.
DO NOT click on the account you do not prefer to use.

BLUE ACCOUNT
Prob.=0.5

RED ACCOUNT
Prob.=0.5

My most preferred distribution of possible losses:
 BLUE account : - 36 points Prob.=0.5
 RED account : - 32 points Prob.=0.5

Confirm

NOTE: Remember that you start with 100 points in each account. At the end of the experiment, only one account will be randomly selected to determine your payment. The exchange rate is 1 point = CHF 1.

This decision means that you prefer possibly losing 36 points in your BLUE account and possibly losing 32 points in your RED account over ANY other possible combinations of losses in this decision problem. This includes ALL distributions that consist of a greater possible loss for your BLUE account and a smaller possible loss for your RED account (such as losing 100 points in your BLUE account and losing 0 loss points in your RED account) and ALL distributions that consist of a smaller possible loss for your BLUE account and a greater possible loss for your RED account (such as losing 0 points in your BLUE account and losing 50 in your RED account). If this decision problem is randomly selected, you will receive 164 (200-36) points if the BLUE account is selected to count, or receive 168 (200-32) points if the RED account is selected to count. Both accounts have an equal probability of being selected as the one that counts.

If you want to cancel your choice, please right-click your mouse to continue exploring available choices.

After choosing your most preferred distribution of possible losses in a decision problem, confirm your decision by clicking on the "confirm" button. You will then proceed to the next decision problem.

Remember that for all of the remaining 16 decision problems, you will only see the decision screen once. You cannot change your answer after leaving the decision screen. So please choose carefully and finalize your decision before clicking the confirm button.

Stage 2: Earning Bonus Payments by Answering Verifiable Questions

In the second stage, you have the opportunity to earn bonus payments by answering verifiable questions regarding your real-life behavior. The bonus payments you receive will depend on your answers and on whether or not the experimenters can verify the truthfulness of your responses. At the end of the experiment, you will be asked to toss a 10-sided die. If you roll a zero, then a random check will be conducted to verify all your answers. Please answer all questions honestly, since you will earn the highest bonus payments when doing so.

For each question, the bottom of the screen will display your bonus payments if you are not checked (if you roll 1 through 9) and if you are checked for honesty (if you roll 0). You earn CHF 1 for answering each main question honestly. For each additional component in your answer that can be verified to be true at the end of the experiment, you earn an additional CHF 0.5 if you are randomly checked and that particular component is verified to be true. However, if you are caught providing any dishonest answer for a question (or any answer that cannot be verified), then you forfeit all bonus payments from this stage. Hence, to earn the highest possible bonus payment, please provide as many verifiable components as possible and answer questions honestly.

Questionnaire

You are now close to the end of this experiment. Please complete a brief questionnaire before receiving your payment.

For questions without a confirm button, please type your answer and it will appear on the screen. Press the "Enter" key for a line break and press the "Esc" key to finish answering and move on to the next question.