Measuring Hearts and Minds: A Validated Survey Module on Inequality Aversion and Altruism

ONLINE APPENDIX

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A Survey Items and Analyses

A.1 Survey Items

Table 1: Altruism items

Item	Description
altGeneral	Are you generally willing to share with others without expecting something in return, or are you not willing to do so?
altStranger	Are you generally willing to share with strangers, or are you not willing to do so?
altResponsability	I feel personally responsible for helping others when I am in a position to do so.
altShame	I would feel uncomfortable keeping all available resources for myself while others have less.
altWellBeing	I value the well-being of others more than maximizing my own personal benefit.
altGoodness	I would rather give to others than see them go without, even if it means I have less.
altMorality	I believe that sharing with others, even when not required, is the right thing to do.
altUniversalism	When I have the chance to give, I do so willingly, regardless of who benefits.
altSatisfaction	I feel fulfilled when I can give something to others, even if it costs me personally.
altKnow	I am willing to share what I have with others, whether I know them well or not.
altOpportunity	If I had the opportunity to help someone financially, I would, even if it is a complete stranger.

Note. The scale is as follows. For altGeneral item: *"0: completely unwilling to do so"* to *"10: very willing to do so."* For altStranger item: *"0: completely unwilling to share with strangers"* to *"10: very willing to share with strangers."* For tailored items: *"0: does not describe me at all"* to *"10: describes me perfectly."* The items altGeneral and altStranger are adapted from Falk et al. (2023) and have been rephrased in what we believe to be a simpler and more accessible form.

Table 2: Comparison items

Item	Description
cmpGeneral	Do you generally compare what you have with others or not?
cmpStranger	Do you generally compare what you have with strangers or not?
cmpPossession	Overall, I am affected by what others have compared to what I have.
cmpInjusticeDis	Overall, I feel a sense of injustice when others have more than I do.
cmpInjusticeAdv	I feel a sense of injustice when some people have significantly less than what I have.
cmpIndifference	Whether others have more or less than I do is irrelevant to me.
cmpIndifferenceAdv	It does not affect me if I am better off than someone else.
cmpUnease	Overall, I am uneasy when I am better off than others.
cmpSatisfaction	In a situation where wealth is redistributed, I am satisfied as long as I get something, even if someone else gets much more.
cmpSuperiority	I particularly enjoy situations where I am better off than others.
cmpEnvy	When I see someone enjoying more resources, I feel a desire to have the same.
cmpDiscomfort	I would feel uncomfortable if I perceive advantages or privileges that are not perceived by others.

Note. The scale is as follows. For cmpGeneral item: *"0: I absolutely do not compare what I have with others"* to *"10: I absolutely compare what I have with others."* For cmpStranger item: *"0: I absolutely do not compare what I have with strangers"* to *"10: I absolutely compare what I have with strangers."* For tailored items: *"0: does not describe me at all"* to *"10: describes me perfectly."*

Table 3: Inequality aversion items

Item	Description
`inqGeneral`	Are you generally willing to redistribute resources with others to reduce inequality, or are you not inclined to do so?
`inqStranger`	Are you generally willing to redistribute resources with strangers to reduce inequality, or are you not inclined to do so?
`inqKnow`	I believe it's important to share equally with others, even if I don't know them personally.
`inqEqualityDis`	In situations where others would earn more than me for the same effort, I would be willing to set an income limit for everyone.
`inqEqualityAdv`	In situations where I would earn more than others for the same effort, I would feel the need to limit my income at a certain point, even if I could earn more.
`inqEquity`	I would prioritize equity over maximizing my own benefits if I were in a situation where I had to distribute resources with others.
`inqSelfishness`	If I have the choice to distribute resources with strangers, I would rather keep more for myself and give less to others.
`inqAltruism`	If I have the choice to distribute resources with strangers, I would rather give more to others and keep less for myself.
`inqMorality`	When I have more than someone else, I feel like I should share what I have.
`inqSacrifice`	I would be willing to sacrifice a large part of my income to slightly reduce that of those less well off than me.
`inqSpitefulness`	I would be willing to sacrifice a little of my income to drastically reduce that of the most fortunate.

Note. The scale is as follows. For `inqGeneral` item: *"0: completely unwilling to do so"* to *"10: very willing to do so."* For `inqStranger` item: *"0: completely unwilling to redistribute resources with strangers to reduce inequality"* to *"10: very willing to redistribute resources with strangers to reduce inequality."* For tailored items: *"0: does not describe me at all"* to *"10: describes me perfectly."* We intentionally reverse-coded `inqSelfishness` to check participants' consistency in responses, although this item is not intended to serve as a screener. We do observe consistency in responses, as the α and β parameter values are positively correlated when the scale is adjusted (see Figure 5).

A.2 Hypothetical Questions

The first question (hypGeneral) is a hypothetical version of the incentivized choice tasks, involving a trade-off between the self's payoff and the other's payoff. The other questions (hypLottery and hypAmount) are adapted from Falk et al. (2023), but decomposed into two parts: the subject first indicates whether he/she would donate to charity, and only then specifies the amount (we believe this slight modification reduces priming).

Table 4: Hypothetical questions

Item	Description
hypGeneral	Imagine you are in a situation where you have to distribute money between yourself and an anonymous person. Neither of you will ever see or interact with the other. You have absolutely no information about the other person's circumstances (such as his/her wealth). The only thing you know is that nobody, except you and the other person, will ever know your choice. What would you do? I would...
hypLottery	Imagine the following situation: you won $1,000 in a lottery. Considering your current situation, would you donate a part of your gains to charity?
hypAmount	If you would, how much would you donate to charity? (Please indicate '0' if you would not.)

Note. The alternatives are as follows (with the associated strategy in parentheses). For hypGeneral: *"keep everything for myself"* (selfish), *"take a larger portion for myself and leave a smaller portion for the other"* (ineqselfish), *"make an approximately equal distribution between myself and the other person"* (egalitarian), *"take a smaller portion for myself and leave a larger portion to the other person"* (ineqaltruism), *"give everything to the other person"* (altruism), *"do something else"* (see below) (other: open text field). For hypLottery: Yes/No. For hypAmount: open text field.

Table 5 documents the number of respondents that chose one of the six possible strategies in the hypothetical survey question. 187 respondents (37.3%) stated the selfish or the mainly selfish (ineqselfish) strategy. 301 respondents (60%) stated the egalitarian strategy. Only a few subjects chose one of the other strategies.

Table 5: Number of respondents' strategies in the hypothetical question hypGeneral

Variable	Count
selfish	72
ineqselfish	115
egalitarian	301
altruism	1
ineqaltruism	4
other	9

A.3 Real-World Behavior

We adapted the real-world behavior questions from Falk et al. (2023) by replacing references to "charity" with "association/volunteering community" to make them more general, except for one question, which specifically addressed donations. We also included one item assessing people's support for policies aimed at reducing inequality.

Table 6: Real-world behavior

Item	Description
`member`	I am a member of an association/volunteering community.
`hours`	Please specify as precisely as possible how many hours per month you volunteer for an association/volunteering community. (If you do not, simply indicate '0'.)
`relatives`	How many people (approximately) know that you commit time to an association/volunteering community? (If you do not, simply indicate '0'.)
`donor`	I am a donor to an association/volunteering community (regular or not).
`amount`	Please specify as precisely as possible what amount you have given to charity over the past year. (If you have not, please enter '0'.)
`policy`	I support policies aimed at reducing inequality, such as taxing the rich to help the poor.

Note. The alternatives are as follows. For `member` and `donor`: Yes/No. For `hours`, `relatives` and `amount`: open text field. For `policy`: *"0: does not describe me at all"* to *"10: describes me perfectly"*.

A.4 Structural Estimation Results

Figure 1 depicts the association between individual aheadness and behindness aversion parameters. The positive correlation between domain-specific inequality aversion discussed in the main text is clearly visible.

Figure 1: Association between aheadness and behindness aversion parameters

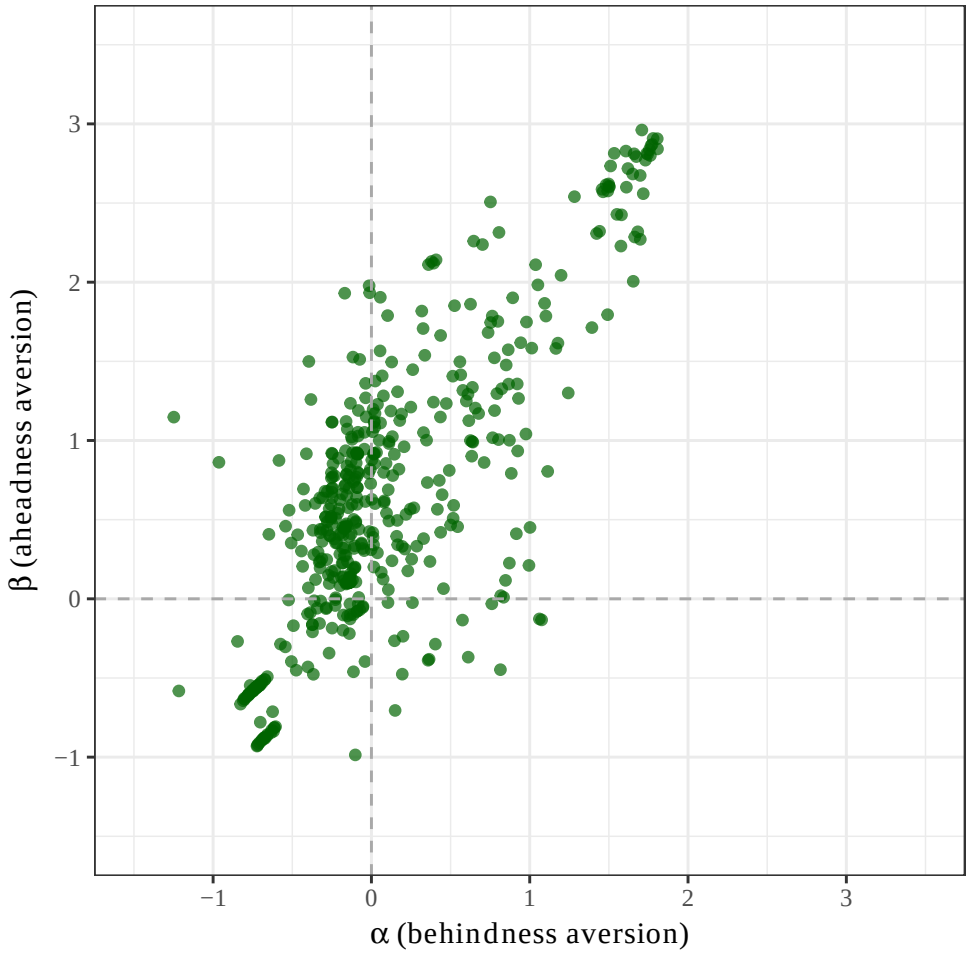
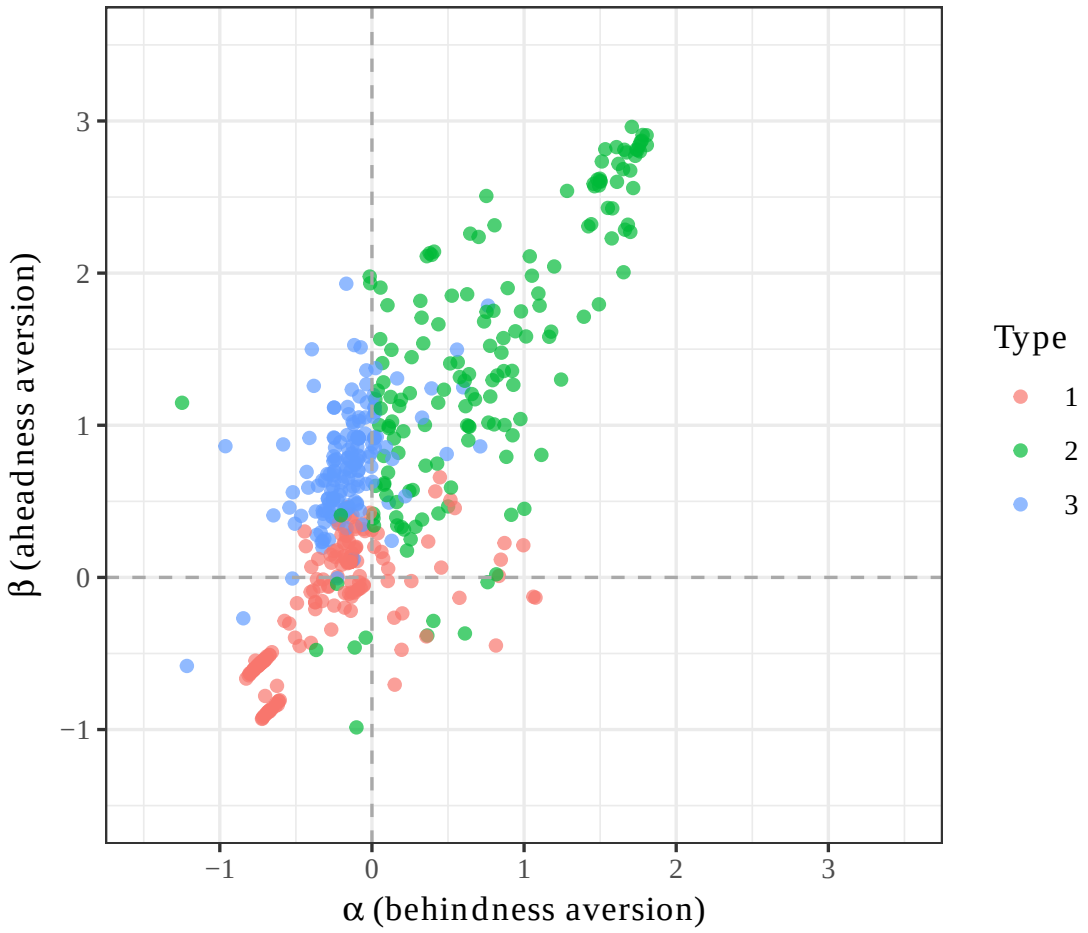


Figure 2 makes the results of Figure **??** visible in the scatter plot. The selfish type's parameters scatter around zero. The inequality averse type shows a more heterogeneous distribution with largely positive inequality aversion in the aheadness and behindness domain. Lastly, the altruistic type's parameters lie mostly in the upper left quadrant of the figure.

Figure 2: Association between aheadness and behindness aversion parameters by type



A.5 Ability of the Structural Model to Capture Features of the Data

Figures 3 and 4 split the α_i and β_i parameters into deciles labeled as D1 (low value) to D10 (high value). As the figures illustrate, subjects who got estimated a high value of the parameters indeed exhibit more inequality aversion in the respective domain. Thereby, α_i seems to more clearly separate the deciles in the behindness domain, whereas β_i seems to more clearly separate the deciles in the aheadness domain. Note, however, that the two parameters are highly correlated in our data.

Figure 3: Deciles α_i (behindness aversion)

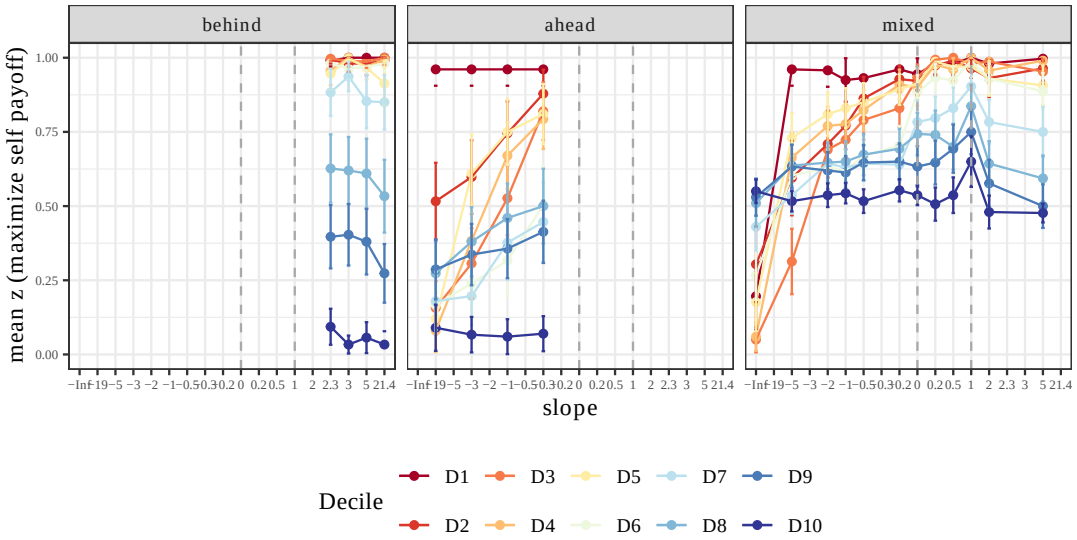
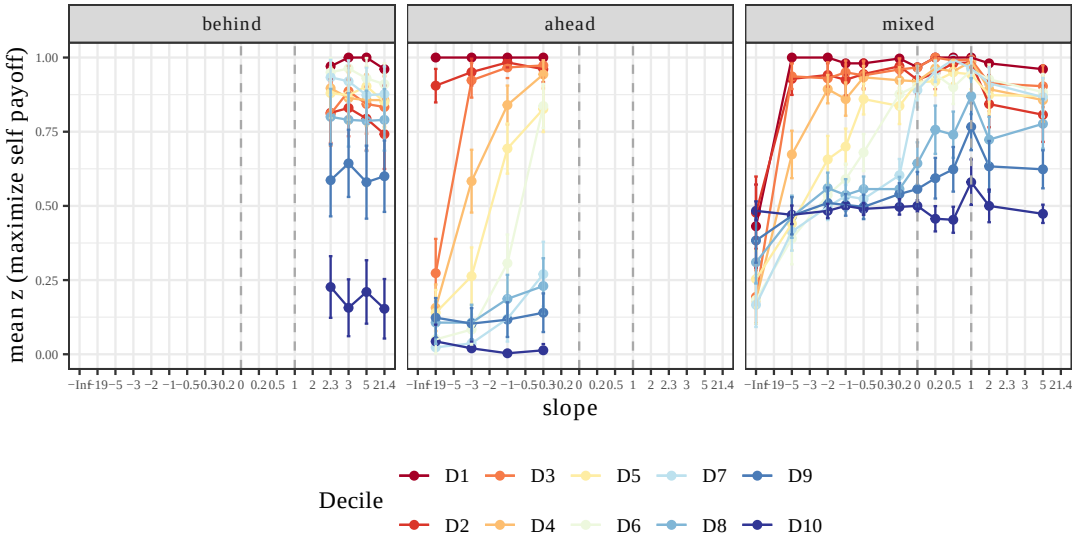


Figure 4: Deciles β_i (aheadness aversion)



A.6 Survey Responses

The responses to the survey items exhibit substantial heterogeneity, reflecting the diverse perspectives of participants. Figure 5 provides an initial exploration of the relationship between survey responses and the inequality aversion parameters estimated from the incentivized choice task. For each candidate variable, the figure presents a heat map illustrating the association with the two inequality aversion parameters α_i and β_i. Although the associations are not unequivocal for every individual variable, a general pattern emerges: higher levels of inequality aversion (depicted by darker tones in the heat map) tend to correspond to higher response values on the survey items. This suggests a meaningful relationship between self-reported attitudes and the estimated preference parameters we obtained from our incentivized elicitation task.

In addition to the survey items, we also included a question about preferred strategies in a hypothetical scenario where participants were asked to decide between the following six options when faced with another participant: (i) take the entire stake (`selfish`), (ii) take more for themselves, but leave some to the other person (`ineqselfish`), (iii) choose an equal allocation (`egalitarian`), (iv) give more to the other person, but keep some to oneself (`inequaltruism`), (v) give the entire stake to the other person (`altruism`), or (vi) select another strategy (`other`) (see Appendix A.2 for the detailed wording).[1] The distribution of responses across these six options was highly uneven, with some strategies (`altruism`, `ineqaltruism`, and `other`) being only rarely chosen (see Table 5 for details). To simplify the analysis, we constructed a binary variable, `hypGeneralSelfish`, which indicates whether a participant selected a selfish strategy. Overall, 37.3% of participants opted for a selfish strategy, aligning closely with the proportion of selfish types identified in our clustering exercise.

As shown in Table 7, while these responses contain some predictive signal regarding participants' actual choices, the signal is imperfect, reflecting a notable discrepancy between stated preferences and revealed preferences. Consequently, this survey question appears to offer limited discriminatory power for distinguishing between the two social preference types.

Table 7: Contingency table of subjects stating any selfish strategy *vs.* the three types identified *via* clustering

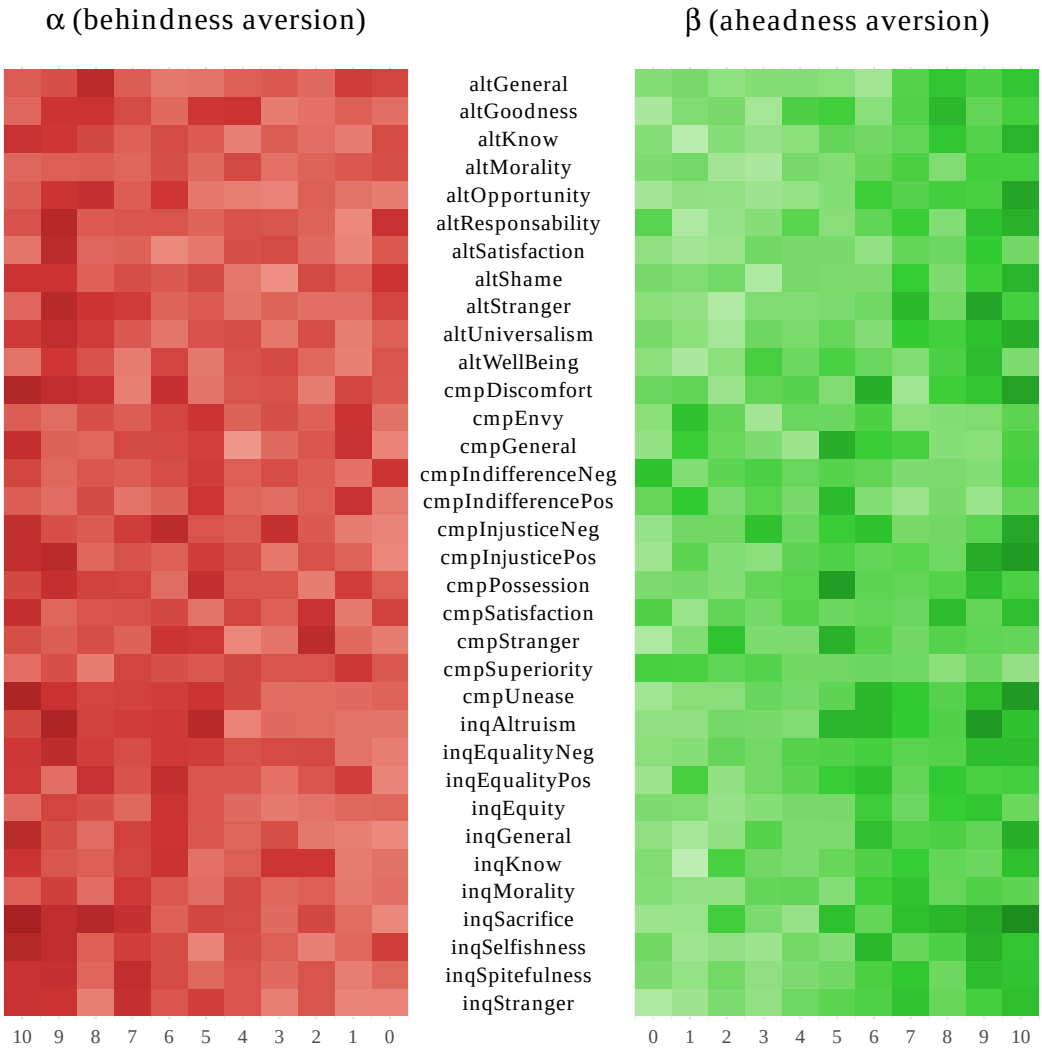
	Type 1: Selfish	Type 2: Inequality averse	Type 3: Altruistic
any selfish strategy	**24.9%**	5.4%	7.0%
other strategy	11.4%	**26.9%**	**24.5%**

Note. The table reports proportions. Stated selfish strategies are indicative for being a selfish preference type as inferred from revealed preference data. However, this signal is far from perfect.

To further assess the effectiveness of strategy responses in predicting allocation choices, consider Figure 6. This figure illustrates the response patterns for four strategy types:

[1] This survey question appeared at a random point in the survey, either early on, preceding the choice task, or later, following the choice task. We find no evidence that the position of this survey question influenced participants' responses to the task, nor that task responses affected how participants answered the survey question.

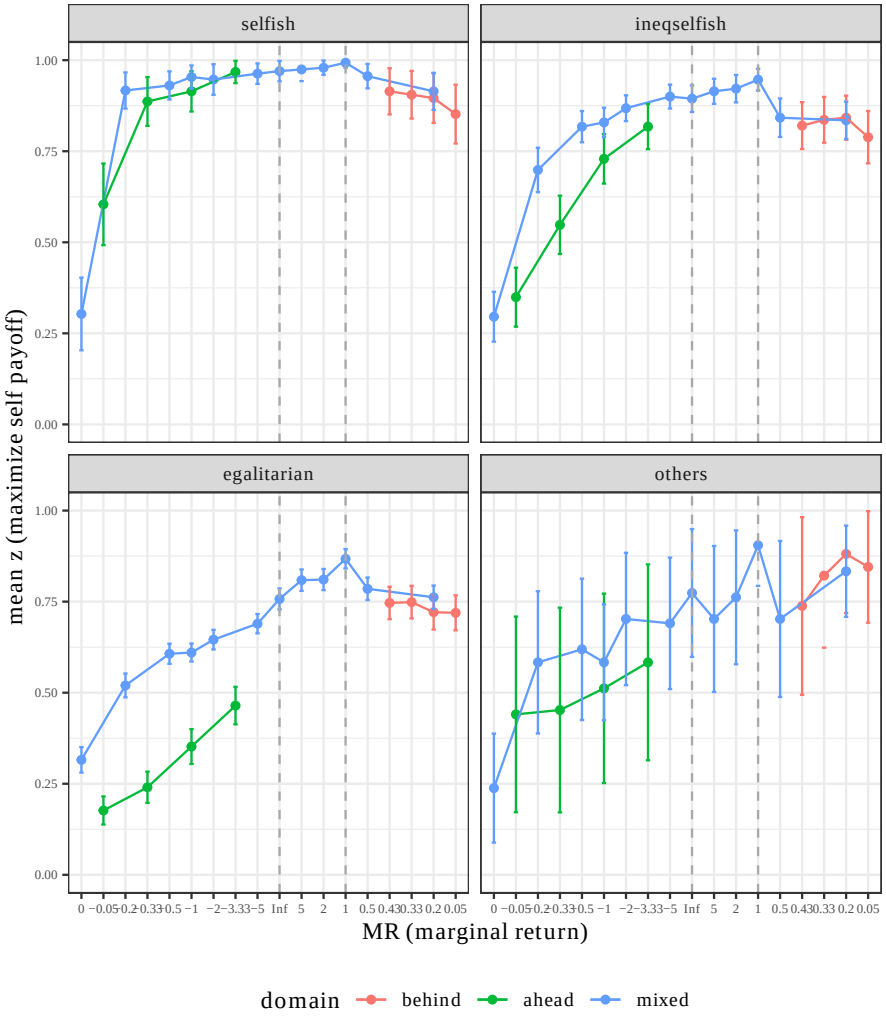
Figure 5: Association between 11-point Likert-scale responses and inequality aversion parameters in the 34 survey items



Note. The heat maps illustrate the association between Likert-scale responses and inequality aversion in the *behind* (α) and the *ahead* (β) domain. Darker tones indicate higher degrees of inequality aversion. A smoothing of the parameter values has been applied since some variable feature bins with only a few observations. Overall, there is a tendency of higher degrees of inequality aversion toward higher Likert-scale responses (10). However, there are vast differences across variables.

(i) participants who chose the fully selfish strategy (`selfish`), (ii) those who selected a more balanced selfish strategy, taking more for themselves but leaving some for the other participant (`ineqselfish`), (iii) participants who stated an egalitarian strategy (`egalitarian`), and (iv) a residual group encompassing other or unspecified strategies (`others`). Stated strategies are roughly in line with the responses we expect in the different settings of the elicitation task (see also the figure notes).

Figure 6: Strategy response signatures



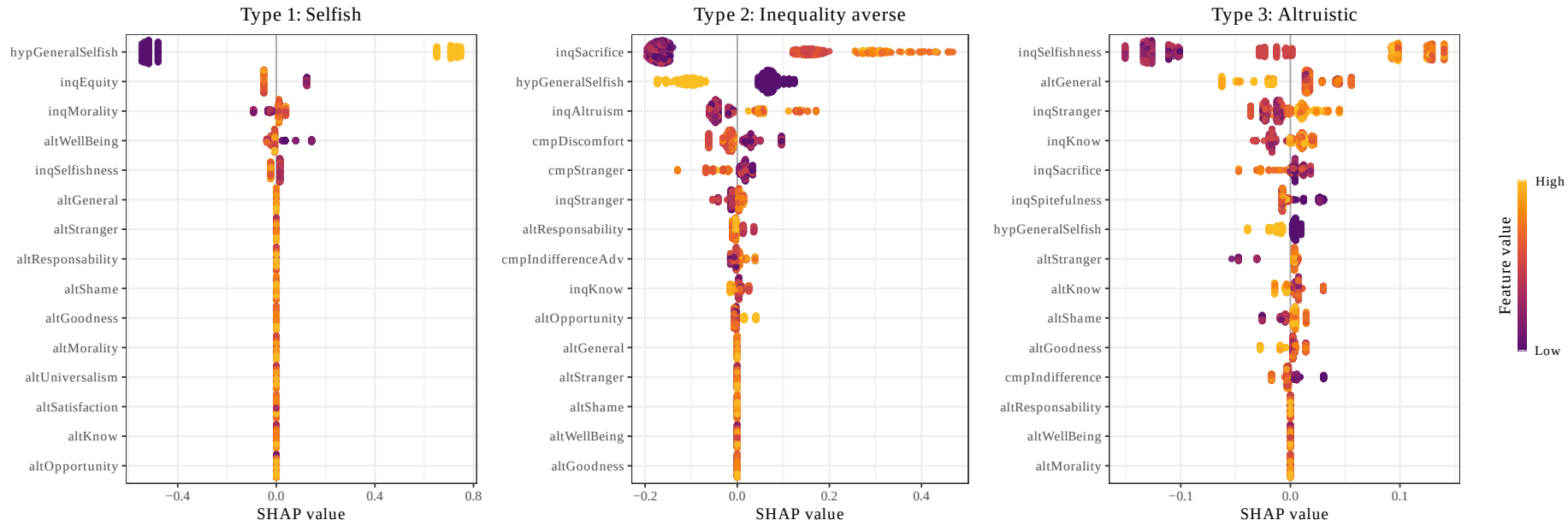
Note. Stated strategies are broadly in line with expected (revealed) behaviors. Respondents who stated the purely selfish strategy (`selfish`) exhibit selfish behavior across the board. The only exception is the area where the cost of redistribution is negligible. Respondents who stated the more balanced strategy of taking more for themselves, but still allocating a smaller part to the other person (`ineqselfish`), reveal a cost-sensitive response pattern. Respondents who stated the `egalitarian` strategy reveal a behavior that is closer to equal allocations, albeit only imperfectly. Finally, respondents who stated one of the other strategies reveal a wide variety of behaviors.

A.7 SHAP Values

Figure 7 below displays SHAP values by type. For each type, the most predictive variables (features) are listed from top to bottom in order of their overall importance (computed as the mean absolute SHAP value). Positive SHAP values indicate a contribution toward predicting assignment to that type, while negative values indicate a contribution away from predicting that preference type. Each point represents an individual data point for a specific variable. The color of the points (heat) correspond to the variable value (yellow for high values, purple for low values).[2] Looking at the points, we can see how variables affect SHAP contribution. A wider spread of the data points for a given variable indicates that the variable's impact on the prediction varies significantly across observations.

[2]Recall that our strategy variable `hypGeneralSelfish` is a binary variable with a value of 1 indicating a *selfish* strategy and a value of 0 indicating a *non-selfish* strategy.

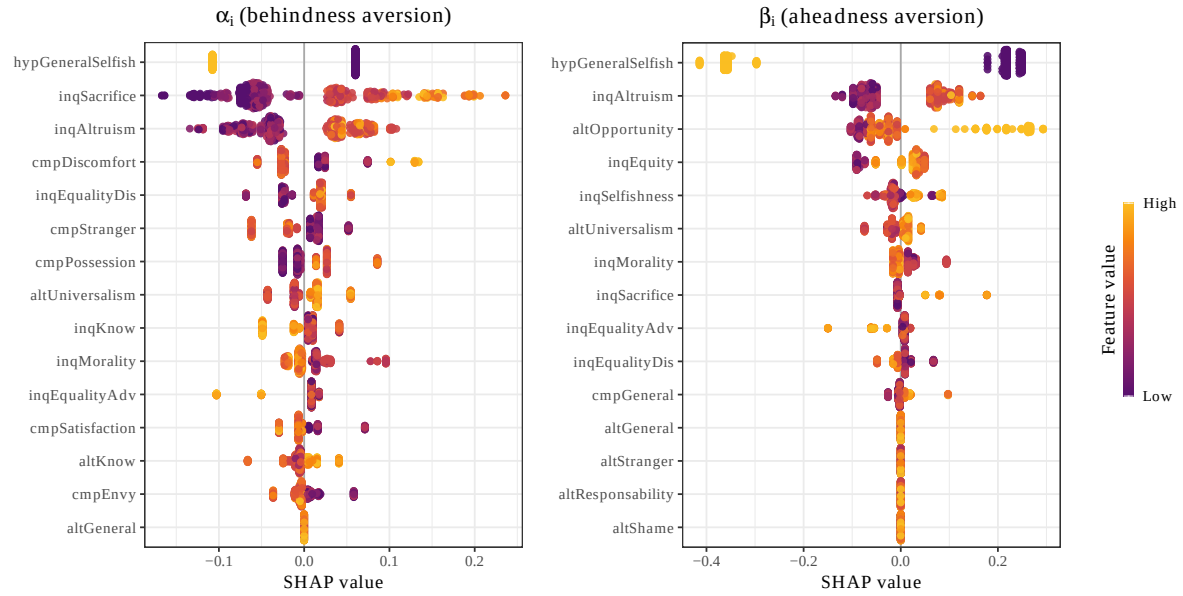
Figure 7: SHAP values by type



Note. The beeswarm plots show the SHAP values for the variables (features) of highest importance separately by preference type. The hypothetical strategy question (`hypGeneralSelfish`) discriminates well between selfish (Type 1) and inequality aversion (Type 2). However, it is less powerful in identifying altruistic types (Type 3). The survey item `inqSelfishness` performs particularly well in identifying altruism (Type 3), followed by `altGeneral`. Variables that have little to no predictive power are omitted.

Figure 8 shows the SHAP values by inequality aversion parameter (α and β). Respondents who indicated a selfish strategy in the hypothetical scenario are systematically predicted to have lower values for both α_i and β_i, suggesting that selfish strategies are associated with reduced concern to inequality in both domains. Among the survey variables, the inequality tailored items (particularly `inqAltruism`, `inqSacrifice`, and `inqSpitefulness`) again emerge as important predictors on our list. These variables provide valuable insights into respondents' attitudes toward inequality and their sensitivity to distributional preferences, making them central to the predictive models for both α_i and β_i.

Figure 8: SHAP values by inequality aversion parameter



Note. The beeswarm plots show the SHAP values by inequality aversion parameter based on two separate models. Stating a selfish strategy is associated with lower α_i and β_i values. The survey item `inqAltruism`—which is a similar type of question as `inqSelfishness` (see the type SHAP plots)—is the next best predictor for both aheadness and behindness aversion. Only the top 15 predictors are displayed.

B Sample Statistics and Validity

B.1 Attention Checks

We used three attention checks, also referred to as "screeners," adapted from Berinsky et al. (2021). These asked respondents about the most important problems facing the country, their favorite colors, and news websites. We positioned the screeners so that they were equally spaced throughout the whole experiment. Specifically, `screener1` appeared before the choice tasks, `screener2` after the choice tasks, and `screener3` midway through the survey items. The screeners were presented as follows and in the following order.

Table 8: Attention check items

Item	Description
`screener1`	Research shows that questions considered important by some people can influence their opinions on other topics. We also want to know if you are paying attention to the survey. If you do, please ignore the question below and select 'Crime'. Which of the following issues faced by the nation do you think is the most important?
`screener2`	Some research has shown that individual preferences and knowledge, as well as external factors, can have a significant impact on the decision-making process. To show that you have read carefully, choose 'Pink' from the options below, regardless of your favorite color. Yes, in order to show us that you are paying attention to this survey, please select 'Pink'. What is your favorite color?
`screener3`	When major news breaks, people often go online to find up-to-the-minute details on current events. We also want to know if you are paying attention to the survey. To show us that you do, please ignore the following question and select 'ABC News' as your answer. When major news breaks, which news website do you visit first?

Note. The alternative are as follows. For `screener1`: Health care, Unemployment, Public debt, War, Crime, Education, International relations. For `screener2`: White, Black, Red, Pink, Green, Blue. For `screener3`: The New York Times, The Washington Post, CNN, NBC, USA Today, ABC News, CBS News.

B.2 Representativeness

We targeted a sample of approximately 500 individuals from the U.S. adult population, aiming for representativeness based on three stratification criteria: age group, gender, and ethnicity. The following three tables illustrate that, after excluding participants who failed the three attention checks, the actual proportions in our sample closely align with the target quotas. Deviations per category are generally within ± 1 percentage point, demonstrating that we come very close to the targeted values.

Table 9: Age group

Age group	Target proportion	Actual proportion	Deviation
18 to 24	0.120	0.116	-0.004
25 to 34	0.173	0.172	-0.002
35 to 44	0.169	0.174	0.004
45 to 54	0.159	0.166	0.006
55 to 100	0.378	0.373	-0.005

Table 10: Gender

Gender	Target proportion	Actual proportion	Deviation
Female	0.508	0.499	-0.009
Male	0.492	0.501	0.009

Table 11: Ethnicity

Ethnicity	Target proportion	Actual proportion	Deviation
Asian	0.062	0.070	0.008
Black	0.118	0.116	-0.002
Mixed	0.104	0.116	0.012
Other	0.080	0.076	-0.004
White	0.637	0.623	-0.015

B.3 Type Characterization: Results for Two and Four Types

Table 12 and 13 show the proportions of subjects assigned to the emerging types. The Alluvial plot in Figure 9 depicts how subjects transition between assigned types when enforcing two, three, four and five types. As argued in the main text, the three type clustering yields a clear interpretation of the types. However, it appears that parts of this interpretation gets lost when forcing the algorithm to return only two types. In the 2-type clustering, the first type (Type 1) is an amalgam of selfish (red for three types) and altruistic (green for three types). The second type (Type 2) of the 2-type clustering contains nearly all inequality averse subjects from the three type clustering, but also a substantial portion of the altruists that we found there. Similarly, going from three to four and more types yields smaller types with less clear interpretation.

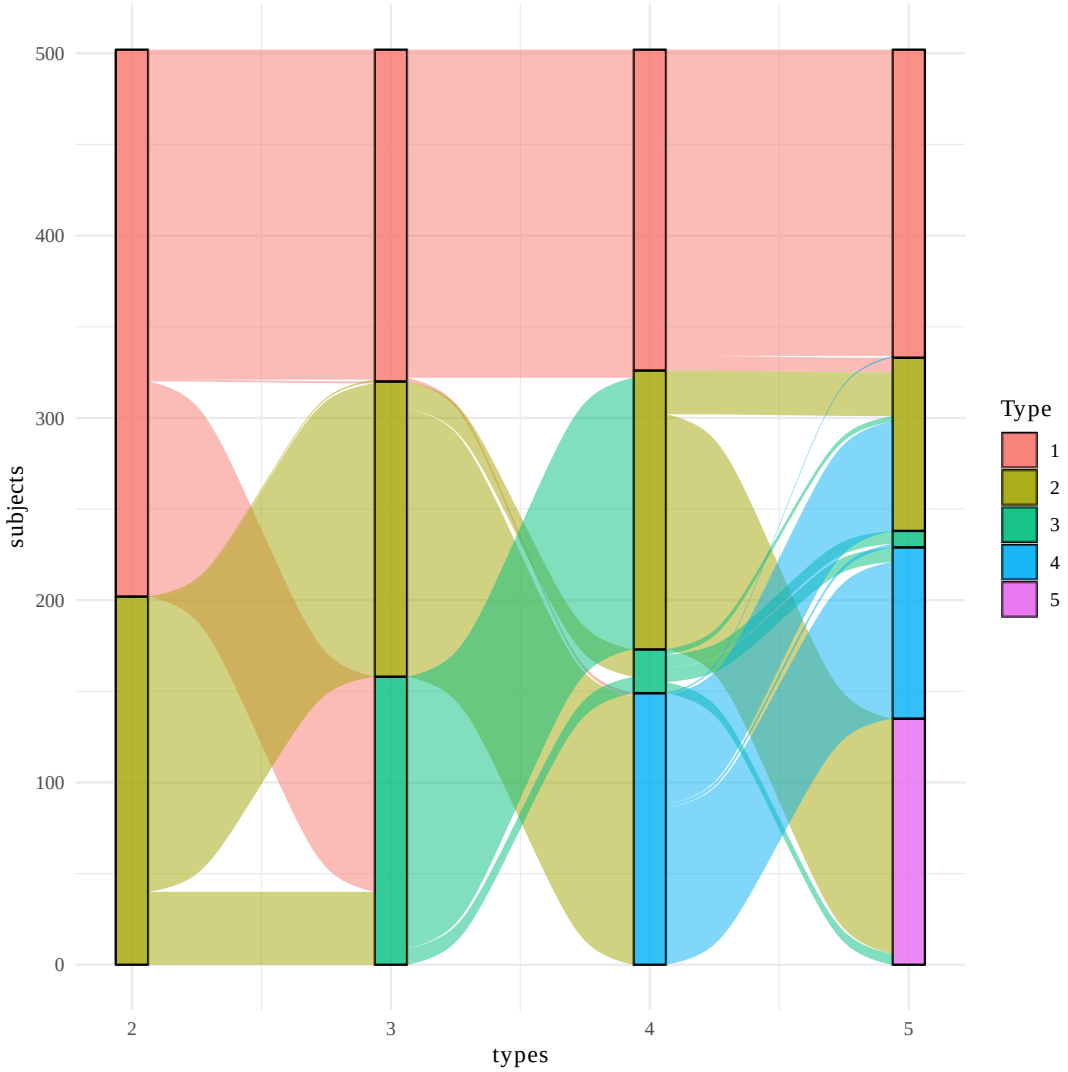
Table 12: Distribution of preference types | $k = 2$

Type	Proportion
1	59.76%
2	40.24%

Table 13: Distribution of preference types | $k = 4$

Type	Proportion
1	35.06%
2	30.48%
3	4.78%
4	29.68%

Figure 9: Alluvial plot



B.4 Additional Results on External Validity

Tables 14 and 15 document the bivariate relationships between our real-world and hypothetical survey items, and the estimated inequality aversion parameters and our module-based scores.

Table 14 presents results for Spearman rank correlation tests on the association between the continuous variables and the preference measures. Our module-based score is more strongly and significantly associated with the different stated behaviors than the preference parameters obtained from estimation.

Table 14: Bivariate associations between estimated preference parameters/module score and continuous real-world behaviors

Variable	(i) behind estim.	(ii) behind score	(iii) ahead estim.	(iv) ahead score
`hours`	0.127 (0.004)	0.222 (0.000)	0.069 (0.124)	0.180 (0.000)
`relatives`	0.105 (0.018)	0.213 (0.000)	0.081 (0.070)	0.182 (0.000)
`amount`	0.064 (0.152)	0.120 (0.007)	0.061 (0.169)	0.143 (0.001)
`hypAmount`	0.191 (0.000)	0.359 (0.000)	0.183 (0.000)	0.335 (0.000)
`policy`	0.055 (0.223)	0.149 (0.001)	0.125 (0.005)	0.240 (0.000)

Note. `behind` and ahead refer to the behindness aversion (α_i or score) and aheadness aversion (β_i or score) parameters, respectively. The table reports Spearman rank correlations between preference parameters obtained from the incentivized elicitation task, α_i and β_i (see columns i and iii), and a series of self-stated behaviors. It reports the same for our behindness aversion index prediction (column iii) and our aheadness aversion index prediction (column iv). p-values are stated in parentheses.

Table 15 reports results of Mann-Whitney U tests. More specifically, we test whether inequality aversion is higher for those who are participating in volunteering and donate to charities (one-sided test). As we see, this is indeed the case for all variables, with our scores performing better than estimated parameters.

Table 15: Bivariate associations between estimated preference parameters/module score and binary real-world behaviors

Variable	(i) behind estim.	(ii) behind score	(iii) ahead estim.	(iv) ahead score
`member`	0.180 (0.001)	0.105 (0.000)	0.158 (0.037)	0.150 (0.000)
`donor`	0.056 (0.098)	0.059 (0.001)	0.027 (0.232)	0.118 (0.000)
`hypLottery`	0.133 (0.003)	0.110 (0.000)	0.187 (0.003)	0.215 (0.000)

Note. `behind` and ahead refer to the behindness aversion (α_i or score) and aheadness aversion (β_i or score) parameters, respectively. The table reports differences in the means of the parameters for Variable=1 - Variable=0. The p-values are for one-sided Mann-Whitney U tests.

Table 16 presents regression results on the intensive margin of charitable giving after a hypothetical lottery win. The results here are a bit less clear, but according to our scores, there is evidence that behindness aversion is associated positively with the donated amount.

Similar results emerge for monetary donations to a volunteering community (see Table 17). Here it is the aheadness aversion that is positively associated with donations. Once again, it is our score that picks up this association, while estimated parameters do

Table 16: Regression Results for Amount of Donations after Windfall `hypAmount`

Variable	(1) estimated	(1c) estimated	(2) score	(2c) score
behindness av.	116.176 (78.104)	102.922 (80.552)	214.293 (89.938)**	206.777 (95.159)**
aheadness av.	120.767 (78.104)	142.933 (80.251)*	40.825 (87.148)	44.342 (92.457)
Intercept	9.688 (34.151)	14.307 (87.681)	1.764 (32.488)	-16.9 (89.131)
Controls	no	yes	no	yes
R^2	0.030	0.096	0.039	0.100

Note. The response variable is the amount donated after a hypothetical lottery win. Model (1) and (1c) use the inequality aversion parameters *estimated* from the incentivized preference elicitation task without and with controls, respectively. Model (2) and (2c) substitute the inequality aversion parameters with our survey module-based *scores*. The controls include age, immigrant status, income class, highest degree of education, civil status and a dummy for children in the household. p-values: $0 \leq^{***} < 0.01 \leq^{**} < 0.05 \leq^{*} < 0.1$.

not.

Table 17: Regression Results for Donations to Volunteering Community `donor`

Variable	(1) estimated	(1c) estimated	(2) score	(2c) score
behindness av.	0.114 (0.104)	0.07 (0.105)	0.052 (0.12)	0.009 (0.123)
aheadness av.	-0.025 (0.104)	0.022 (0.105)	0.213 (0.116)*	0.272 (0.12)**
Intercept	0.320 (0.046)***	0.209 (0.115)*	0.238 (0.043)***	0.116 (0.115)
Controls	no	yes	no	yes
R^2	0.003	0.11	0.025	0.135

Note. The response variable is a binary variable for whether the respondent donates to a volunteering community. We estimate a linear probability model. Model (1) and (1c) use the inequality aversion parameters *estimated* from the incentivized preference elicitation task without and with controls, respectively. Model (2) and (2c) substitute the inequality aversion parameters with our survey module-based *scores*. The controls include age, immigrant status, income class, highest degree of education, civil status and a dummy for children in the household. p-values: $0 \leq^{***} < 0.01 \leq^{**} < 0.05 \leq^{*} < 0.1$.

Tables 18 and 19 show two instances where we fail to detect any association with aheadness and behindness aversion. The results are consistent between estimated parameters and scores. While we find clear bivariate associations between these variables and our score (see Table 14), we do not find any support for such associations in the regressions. This results is not particularly surprising, however. The `relatives` item should possibly only be weakly related to own preferences. The number of people knowing about respondents' volunteering activities may crucially depend on other factors (social network and nature of the association, etc.), factors we cannot control for. Similarly, the amount donated to charities (`amount`) is heavily influenced by wealth and income. We have a rough measure for the latter and control for it in the regressions. However, there are likely more complex interactions at play here. For a discussion, see in particular Epper et al. (2024), who use third-party registered data on charitable donations.

Lastly, Table 20 presents results on the predictive power of estimated and scored inequality aversion measures on the extensive margin of charitable giving. We find an association of aheadness aversion and giving at the 5% significance level for our score.

Table 18: Regression Results for People Knowing about Volunteering `relatives`

Variable	(1) estimated	(1c) estimated	(2) score	(2c) score
Intercept	4.849 (4.16)	-2.753 (10.68)	0.956 (3.962)	-5.988 (10.867)
behindness av.	5.012 (9.514)	4.644 (9.812)	11.321 (10.969)	10.586 (11.602)
aheadness av.	1.306 (9.514)	-0.972 (9.775)	2.95 (10.628)	-1.766 (11.273)
Controls	no	yes	no	yes
R^2	0.002	0.072	0.008	0.074

Note. The response variable is the number of people the respondent knows that he/she commit time in volunteering. Model (1) and (1c) use the inequality aversion parameters *estimated* from the incentivized preference elicitation task without and with controls, respectively. Model (2) and (2c) substitute the inequality aversion parameters with our survey module-based *scores*. The controls include age, immigrant status, income class, highest degree of education, civil status and a dummy for children in the household. p-values: $0 \leq^{***} < 0.01 \leq^{**} < 0.05 \leq^{*} < 0.1$.

Table 19: Regression Results for Donations to Charities `amount` (Intensive Margin)

Variable	(1) estimated	(1c) estimated	(2) score	(2c) score
behindness av.	2329.22 (1960.58)	2021.83 (1921.79)	1882.88 (2267.08)	1424.00 (2275.26)
aheadness av.	-2361.19 (1960.58)	-2074.42 (1914.59)	154.37 (2196.77)	363.53 (2210.64)
Intercept	825.61 (857.25)	1204.29 (2091.87)	-204.36 (818.93)	210.10 (2131.13)
Controls	no	yes	no	yes
R^2	0.003	0.163	0.004	0.163

Note. The response variable is the (self-reported) amount of U.S. dollars donated to charities over the past year. Model (1) and (1c) use the inequality aversion parameters *estimated* from the incentivized preference elicitation task without and with controls, respectively. Model (2) and (2c) substitute the inequality aversion parameters with our survey module-based *scores*. The controls include age, immigrant status, income class, highest degree of education, civil status and a dummy for children in the household. p-values: $0 \leq^{***} < 0.01 \leq^{**} < 0.05 \leq^{*} < 0.1$.

However, estimated preferences fail to establish such a relationship (possibly due to reasons highlighted earlier).

Table 20: Regression Results for Donations to Charities `amount`>0 (Extensive Margin)

Variable	(1) estimated	(1c) estimated	(2) score	(2c) score
behindness av.	0.067 (0.108)	0.006 (0.107)	-0.017 (0.124)	-0.042 (0.126)
aheadness av.	0.098 (0.108)	0.155 (0.107)	0.278 (0.12)**	0.311 (0.122)**
Intercept	0.394 (0.047)***	0.152 (0.117)	0.353 (0.045)***	0.097 (0.118)
Controls	no	yes	no	yes
R^2	0.008	0.138	0.025	0.155

Note. The (binary) response variable is whether the (self-reported) amount of U.S. dollars donated to charities over the past year is positive. Model (1) and (1c) use the inequality aversion parameters *estimated* from the incentivized preference elicitation task without and with controls, respectively. Model (2) and (2c) substitute the inequality aversion parameters with our survey module-based *scores*. The controls include age, immigrant status, income class, highest degree of education, civil status and a dummy for children in the household. p-values: $0 \leq^{***} < 0.01 \leq^{**} < 0.05 \leq^{*} < 0.1$.

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