Pre-Analysis Plan: Default effects in fairness preference elicitation.*

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1 Introduction

The purpose of this study is to establish whether there are default effect when conditional fairness preferences are elicited using the industry standard spectator method (e.g. of fairness preferences, e.g. Almås et al., 2020), and to explore the methodological implications of default effect to inform best practices in eliciting conditional fairness preferences.

2 Theoretical Framework and Research Questions

The experiment is designed to test the suitability of the standard techniques (see for example Almås et al., 2020) to elicit conditional fairness preferences. We primarily test the following model (Model 1), which is based on the assumption spectator preferences condition only on the institution for allocating payments based on a real effort task (e.g. Luck or Merit).

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In sum, under this model, each individual has an ideal point for the distribution of payoffs under each institution, which is the only determinant of spectator preferences. Therefore, defaults do not matter for the elicitation of conditional fairness preferences, since they do not change the institution for allocating payments, and any differences in the elicited spectator preferences across treatments that change the default, but hold the institution for allocating payments constant, will falsify the model.

Conditional on falsifying Model 1, we will develop a new model incorporating the observed default effects (Model 2). Importantly, we will use the model to highlight whether there is a need to control for systematic differences in default effects between populations when making cross-population comparisons of conditional fairness preferences. This will allow us to comment on whether differences in fairness preferences between populations are properly identified in the standard elicitation techniques, and to suggest alternative elicitation techniques that may mitigate this identification problem.

Lastly, we will also discuss the implications of these results on the common practice of dividing subjects into different "types," and propose alternative classifications.

2.1 Model 1

We follow the theoretical framework in Almås et al. (2020), formalizing the implicit assumption that individual preferences condition only on the institution that determines the interim distribution of workers' payoffs for a real effort task. To make formalize this assumption, we need to first introduce an "Institutional space"—i.e. the set of all possible institutions for allocating interim payoffs. Take $\mathbb{I}$ to be the space of all institutions, with typical element $I \in \mathbb{I}$; for example, $I =$ "Luck."

Next, take the interim worker payoff to be $(1-d, d)$ with $d \in [0, 1]$ (interim in the sense that the workers have completed the real effort task and been informed about "initial" earnings). The agent, i is shown $(1-d, d)$, and is then given the opportunity to change the earnings to $(1-y, y)$, with $y \in [0, 1]$.

Agent i's utility function maps the distribution of workers' payoffs $(1-$

$y, y)$ into $\mathbb{R}$:

$$V_i(y_i, I) = -\frac{\beta}{2}(y_i - m_i(I))^2, \tag{1}$$

where $m_i(I) \in [0, 1]$ represents i's distributional "ideal point" conditional on institution I.

Note that under this framework, the interim worker payoffs $(1-d, d)$ do not enter the utility function. Therefore, the model gives the simple result:

Result 1 *The agent selects y_i equal to $m_i(I)$ for any d.*

That is, Model 1 gives the testable prediction that subjects will select the same ex post distribution of payments regardless of the interim distribution.

3 Experiment and Data Collection

The full details of the data collection are detailed in the PAP for a companion project, "Fair Institutions" (see AEA RCT trial). This pre-analysis plan was submitted to the AEA RCT trial prior to the researchers accessing the data.[1]

For this project, we collect data from three different treatments, split between two population—a representative US sample and a representative Swedish sample. The English-language questionnaires used in the three treatments are provided in Section 5.

In all treatments, the interim payoffs are selected randomly; i.e. the institution for allocating interim payoffs is "Luck."

3.1 Treatments

We will run two different treatments.[2] In the benchmark "Unequal Default" treatment, prior to selecting a payment plan, subjects are informed that the workers were told that the winning worker would receive a bonus of

[1] Due to an administrative error, the researchers were sent a copy of the data prior to submitting the PAP. However, none of the researchers conducted any analysis on the data, or even opened the data file.

[2] Additionally, we will discuss a third treatment but will not conduct any formal hypothesis testing for this treatment.

6, while the losing worker would receive a bonus of 0. Additionally, they were told that the workers were informed that a third person would have a chance to change this payment plan. This treatment is analogous to the standard elicitation question for fairness preferences (**?**).

In the "Equal Default" treatment, subjects are informed that the workers were told that the both workers would receive a bonus of 3. Additionally, they were told that the workers were informed that a third person would have a chance to change this payment plan.

Lastly, we will discuss a third "No Default" treatment. This treatment will be discussed illustrative purposes only.

Table 1: Treatments: Number of Spectators

	USA	Scandinavia
Unequal Default 6/0	250	250
Equal Default 3/3	250	250
No Default (Ex-Ante)	*250*	*250*
Total	750	750

4 Empirical strategy

This section outlines the hypotheses and empirical strategy of the project.

4.1 Hypotheses

We test the following two hypotheses, based on the predictions of the theoretical framework.

Hypothesis 2 *Respondents are equally likely to accept inequality in the Unequal Default and Equal Default treatments.*

Hypothesis 3 *The difference between inequality acceptance in the US and Scandinavia is the same in the Unequal Default and Equal Default treatments.*

4.2 Specifications and Analysis

In the analysis, we use two measures of the inequality acceptance of spectator i. First, we measure the inequality implemented by spectator i:

$$u_i = \frac{|Income\ Worker\ A_i - Income\ Worker\ B_i|}{Total\ Income} \in [0, 1], \tag{2}$$

This inequality measure is equivalent to the Gini coefficient in a two-person situation. It is equal to one if the spectator decides on a 6-0 split and zero if the spectator decides to equalize the incomes between the two workers.

Second, as a descriptive measure, we also measure inequality acceptance as an indicator variable, u_i', for whether the spectator decides to equalize the income of the two workers, i.e., whether the spectator is not willing to accept any inequality between them.

The main empirical specification we will use to study the treatment effects on inequality acceptance is:

$$\begin{aligned} u_i = \alpha &+ \delta_0 EqualDefault_i + \delta_1 Sweden_i \\ &+ \delta_2 EqualDefault_i\ Sweden_i + \gamma \mathbf{X}_i + \epsilon_i \end{aligned} \tag{3}$$

where $EqualDefault_i$ is and indicator variables for spectator i being in the Equal Default treatment (as opposed to the Unequal Default treatment), $Sweden_i$ is an indicator variable for spectator i being from Sweden, and $\mathbf{X}_i$ is a vector of control variables. Since the Unequal Default treatment is the base treatment, the estimated value of δ_0 and δ_2 provide us with the causal effects of the equal default on, respectively, the level of accepted inequality and the difference in accepted inequality between the US and Swedish samples. We will also report the results both with and without control variables (age, gender, education, income; see PAP for "Fair Institutions" for details).

We will also report descriptive statistics, along with u_i', across all three treatments (Unequal Default, Equal Default and No Default) and country samples.

5 Questionnaire

Treatment 1: Unequal Default

In contrast to traditional survey questions that are about hypothetical situations, we now ask you to make a choice that has consequences for a real life situation. A few days ago two individuals, let us call them worker A and worker B, were recruited via an international online market place to conduct an assignment.

Worker A and worker B were each offered a participation compensation of 2 USD regardless of what they were paid for completing the assignment. After they had completed the assignment, they were told that it was randomly decided that one of them would earn an additional 6 USD for the work on the assignment while the other would not earn anything additional for the work on the assignment. However, they were also told that a third person could change how the additional earnings would be divided between the two of them and thus determine how much they were paid for the assignment.

You are the third person and we now want you to choose whether to change the earnings for the assignment between worker A and worker B. Your decision is completely anonymous. The workers will receive the payment that you choose for the assignment within a few days, but will not receive any further information.

Worker A was randomly selected to earn 6 USD for the assignment, thus worker B earned nothing for the assignment. Please state which of the following alternatives you choose:

I do not change the earnings:

- worker A is paid 6 USD and worker B is paid 0 USD.

I do change the earnings:

- worker A is paid 5 USD and worker B is paid 1 USD.
- worker A is paid 4 USD and worker B is paid 2 USD.
- worker A is paid 3 USD and worker B is paid 3 USD.

Treatment 2: Equal Default

In contrast to traditional survey questions that are about hypothetical situations, we now ask you to make a choice that has consequences for a real life situation. A few days ago two individuals, let us call them worker A and worker B, were recruited via an international online market place to conduct an assignment.

Worker A and worker B were each offered a participation compensation of 2 USD regardless of what they were paid for completing the assignment. After they had completed the assignment, they were told that it was randomly decided that both of them would earn an additional 3 USD for the work on the assignment. However, they were also told that a third person could change how the additional earnings would be divided between the two of them and thus determine how much they were paid for the assignment.

You are the third person and we now want you to choose whether to change the earnings for the assignment between worker A and worker B. Your decision is completely anonymous. The workers will receive the payment that you choose for the assignment within a few days, but will not receive any further information.

Please state which of the following alternatives you choose:

I do not change the earnings:

- worker A is paid 3 USD and worker B is paid 3 USD.

I do change the earnings:

- worker A is paid 6 USD and worker B is paid 0 USD.
- worker A is paid 5 USD and worker B is paid 1 USD.
- worker A is paid 4 USD and worker B is paid 2 USD.

Treatment 3: No Default (Ex-Ante)

In contrast to traditional survey questions that are about hypothetical situations, we now ask you to make a choice that has consequences for a real life situation. In a few days two individuals will be recruited via an international online market place to conduct an assignment.

The workers will each be offered a participation compensation of 2 USD regardless of what they are paid for completing the assignment. Before completing the assignment, the workers will be told that a third person chose how the earnings for completing the assignment would be divided between the two of them, and they will be informed about the third person's choice.

You are the third person and we now want you to choose how the earnings will be divided between the two workers. Your decision will be completely anonymous. The workers will receive the payment according to your choice for the assignment within a few days, but will not receive any further information.

Please state which of the following alternatives you choose:

- one worker is randomly selected to be paid 6 USD and the other worker is paid 0 USD.
- one worker is randomly selected to be paid 5 USD and the other worker is paid 1 USD.
- one worker is randomly selected to be paid 4 USD and the other worker is paid 2 USD.
- both workers are paid 3 USD.

References

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