Results of Experiment 2

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1 Sample

In this experiment, each subject was required to complete a same survey. The survey contains 4 choice questions for consistency check, 14 fill-in-the-blank questions as the main task, and one additional choice question for measuring impatience.

In each fill-in-the-blank question, participants will face two reward sequences - Option A and Option B. Option A offers two rewards at two specific times: one today and another after a certain delay (e.g. "receive £185 today and £60 in 6 months"). Option B offers an unknown amount today and no amount after the same delay. Participants have to identify which level of this unknown amount would make them value the two options equally, and fill in the blank with their answer. Figure 1 presents an example question. We term their answer as the "indifference point" between the two options. Throughout the survey, the back-end amount in Option A is fixed at £60. We set up seven levels for the front-end amount (£25, £105, £185, £265, £345, £425, £505), and two levels for the delay (6 months and 12 months. Overall, there are 14 fill-in-the-blank questions, presented in a random order.

Before participants start doing the main task, there are four consistency check questions. Each consistency check question contains two options: one is the same as Option A in a subsequent fill-in-the-blank question; the other is framed in the way as Option B, offering a specific amount today and no amount in the certain delay. In the latter option, the amount

Figure 1: Screenshot of an fill-in-the-blank question

offered today is either the same as that of the former option, or above the total money in the former option. Participants are required to choose the option they prefer. We exclude the participants whose choices are incompatible with their answers in the correponding fill-in-the-blank questions. For example, a participant may face a choice between "receive £185 today and £60 in 6 months" and "receive £300 today and £0 in 6 months". If she choose the latter option, then when she meets the former option in a subsequent fill-in-the-blank question, she should fill in an amount smaller than £300. Finally, at the end of the survey, we add one additional question to measure the participants' impatience. The question is the same as the "Preference for Earlier vs Later Income" (PELI) task in Burro et al. (2022).

Two hundred subjects (female: 50%) were recruited via Prolific, of which 197 subjects completed the survey[1]. The median age for those who completed the survey is 38, the median completion time is 4.8 minutes. The minimum completion time is 1.83 minutes. We offer £1.2 for each participant. There were 157 subjects having passed the consistency check. Given that each subject completed 14 fill-in-the-blank questions, we construct a sample of 2,198 observations.

[1]When a question was loaded multiple times during the survey completion process, the survey will be automatically ended and submitted, in order to prevent duplicate responses. This situation occurred with three participants. We thus abort their answers.

2 Heterogeneity in Responses

3 Regression Results

4 Discussion

Reference

Burro, G., McDonald, R., Read, D., and Taj, U. (2022). Patience decreases with age for the poor but not for the rich: an international comparison. *Journal of Economic Behavior & Organization*, 193:596–621.

Table 1: Regression Results

	(1) Pool	(2) Pool	(3) FE	(4) FE	(5) RLM	(6) RLM
$Y_1 \cdot 1\{T = T_L\}$	-0.005**		-0.005*		-0.005***	
	(0.002)		(0.002)		(0.001)	
$Y_1 \cdot 1\{T = T_H\}$	-0.006***		-0.005**		-0.006***	
	(0.002)		(0.002)		(0.001)	
$Y_1 \cdot 1\{T = T_L\}\times$CL1		0.022***		0.002		0.0
		(0.004)		(0.002)		(0.001)
$Y_1 \cdot 1\{T = T_H\}\times$CL1		0.023***		0.003		-0.0
		(0.004)		(0.002)		(0.001)
$Y_1 \cdot 1\{T = T_L\}\times$CL2		-0.06***		-0.019***		-0.017***
		(0.005)		(0.004)		(0.002)
$Y_1 \cdot 1\{T = T_H\}\times$CL2		-0.062***		-0.021***		-0.022***
		(0.005)		(0.004)		(0.002)
PELI	-0.239	-0.645	9.187***	7.215***	2.181***	2.206***
	(3.95)	(2.638)	(0.015)	(0.364)	(0.319)	(0.31)
Constant	53.742***	54.037***	46.434***	47.965***	52.158***	52.385***
	(3.619)	(2.684)	(0.485)	(0.432)	(0.361)	(0.351)
observations	2186	2186	2186	2186	2198	2198
adj-R^2	0.0	0.334	0.648	0.654		
Muller-Welsh					128.457	122.183

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. Standard errors are reported in the parentheses. Model (1)-(2) are pooled OLS models, model (3)-(4) are fixed-effect OLS models, model (5)-(6) are fixed-effect robust linear regressions (RLM). For OLS, standard errors are clustered at the subject level, and p-values are calculated using t-tests. For RLM, each model is estimated using Huber's M-estimator (the threshold for loss function is set at 1.345) and the scale estimator is Huber's proposal 2 estimator. Each p-value for RLM is calculated based on a normal distribution with i.i.d. assumption. A smaller Muller-Welsh score indicates the model has a greater ability to both parsimoniously fit the data and predict new independent obeservations. Y_1 and T denote the front-end amount and the sequence length in Option A. T_L and T_H are 6 months and 12 months, respectively. Clustering results are obtained through k-means method.