

Technical Appendix to CHOICE UNDER UNCERTAINTY: EVIDENCE FROM ETHIOPIA, INDIA AND UGANDA

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Appendix B: Experimental Procedures

The same experimental procedures and instructions were applied in all five locations in which our experiment was conducted. There were a few minor variations in order to adapt to the conditions we encountered in specific locations. We highlight these where appropriate.

B.1. Field Laboratories

The experimental laboratories we used in the field were school or community halls or, in the case of Ethiopia, a field in the shade of trees. Our subjects were part of a household survey. For purposes of the experiments we worked with groups of approximately 10 subjects at a time. Each of our subjects was allocated a helper.

The experiments in Uganda were conducted in October 2001. One location was Sironko township, and the other was Bufumbo sub-county, both in the Mbale district of east Uganda. During the 1990s Uganda had a sustained economic recovery following the brutal dictatorships of Amin and Obote and was not suffering from any major disturbances at the time of the experiments.

The experiments in Ethiopia were conducted in February 2002. All experiments were conducted in Mana wereda (district) in the Jimma administrative zone of the Oromiya region. At that time Ethiopia was in particularly dire economic straits, after a border war with Eritrea between 1998 and 2000, and recurrent droughts that only ended in 2003.

The experiments in India were conducted in April 2002. One location was Vepur village, and another was Guddimalakapuru village, both in the Mahabubnagar district in the state of Andhra Pradesh. This region was in the midst of a severe drought at the time.

B.2. Preparation and Translation

The experiment organiser read-out instructions and procedures which were 'liaison translated'. In order to prepare the translation, the experiment organiser met with around five key helpers, including the translator, before the experiments started. The experiment organiser explained what would be said to the subjects and the translator

explained to the other helpers how they intended to translate instructions. The helpers then commented on the translation of instructions in order to highlight any language which may require adapting to the context of the particular locale. During these discussions it was emphasised that the instructions should be kept as neutral as possible.

The representation of lotteries and the tasks faced by the subjects is as explained in the main body of the article. The use of coloured balls representing specific prizes and bags was discussed with our enumerators prior to the experiments in order to establish that our subjects would understand this representation of lotteries. Discussions with helpers who had extensive local knowledge allowed us to confirm that our experimental design, representations of risk and decisions problems were appropriate for each location. The fact that helpers in each location confirmed that our procedures would be appropriate enabled us to control for variation in procedures and representations of problems which may otherwise have been necessary.

B.3. Instructions

The experiment organiser stood in front of the subjects and explained, via translation, the experiment as follows:

We are about to play some games with you for real money. These games are to find out about what you prefer – there are no right or wrong answers. The information will be used by researchers in the UK. It will be used only for research purposes – for us to understand better how people in this area think and behave.

An example of the type of decision you will be asked to make is as follows:

[At this point subjects were asked to look at a piece of paper which their helper placed in front of them with a visual representation of a pair-wise choice problem using the marbles in bags format. The sheet displayed two bags with appropriate number of differently coloured balls, with the appropriate cash amount they represented written underneath. The experiment organiser physically placed the corresponding balls into actual bags in front of the subjects whilst explaining what they were doing. In India, rather than using individual sheets of paper, the decision problems were shown on a large board located on a stage in front of the subjects].

In each decision problem you should indicate which of the bags you prefer by pointing to it. Your helper will record your choice.

[Helpers recorded choices so we could avoid asking the less literate subjects to use a pen. Subjects were then given the opportunity to practice with an example decision problem and to ask any questions they may have about the decisions. Each session progressed onto the real problems only when the helpers and organiser were sure that everyone understood the example problem.]

You will now make eight decisions of the type you have just made. We will pay you the outcome of your choice in one of the decision problems. When you have finished these questions we will randomly select one by drawing a number from this bag which contains pieces of paper numbered consecutively (from 1-8). We will then look at how you chose in this

problem and play out your chosen alternative by selecting a ball from this bag (containing balls as appropriate). If you win you will be paid in cash on the spot. Because you will not know which of these problems will be paid for real money until all problems have been answered you should consider each of them carefully and as if they are all for real money.

[Subjects then made their choices. The procedure described above was followed for each of the problems. i.e. helpers gave the subject a sheet of paper describing the decision problem, the organiser demonstrated the problem by placing balls in bags as appropriate, the choice was indicated, recorded by the helper and then the helper removed that decision sheet and gave the subject the next decision sheet. When everyone had finished, the payment procedure commenced and subjects were paid in cash on the spot.]

B.4. Additional Details

Some standard experimental controls were incorporated into the procedures. Subjects were spatially separated from each other and told that talking to each other during the experiment would lead to exclusion. Each experimental session took around 3 hours to complete.

To control for possible order effects, roughly one half of the subjects had the tasks presented in one order, and the other half in reverse order. Using the task numbers listed in Table 1 and, using $H_b(H_v)$ to denote a hypothetical binary choice (valuation) task not listed in Table 1, one order was $H_b, H_v, H_b, H_v, 1, 5, 7, 2, 4, 3, 6$ and 8. So this order starts with four hypothetical tasks and the other order has these hypothetical tasks after the real tasks.

There were several additional tasks that we do not report here. After our task 6 some subjects were asked a hypothetical question about livestock losses and some subjects were asked to place a certainty-equivalent value on the lotteries in our task 7.