Choices of Consequence:
Some Financial Decisions of the Rural Poor

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OVERVIEW

INTRODUCTION
THE RESEARCH ISSUE
BACKDROP
METHODOLOGY
RESULTS
CONCLUSION
INTRODUCTION

Financial decisions regarding living expenses, consumption, savings, investments and debt are common to all households.

The funds associated with these decisions usually come from work related income streams, prior savings and by borrowing from various sources (formal or informal).

Households in subsistence marketplaces:

- Unreliable income streams
- Minimal (no) surplus from earning streams
- Minimal prior savings and significant accumulated debt
- Negative net worth

Yet, they are not financially disengaged but are active money managers for whom common financial decisions related to life contingencies involve consequential choices.

(Collins, Morduch, Rutherford and Ruthven 2009 – *Portfolios of the Poor*)
THE RESEARCH ISSUE

Life contingencies that create draws on financial resources include:
- Common social obligations
- Personal (or family) medical emergencies
- Small investment (business) opportunities

The financial choices stemming from these contingencies involve decisions regarding:
- Size (amount) of the expenditure (smaller versus larger)
- Timing of the expenditure (sooner versus later)
- Source (savings, additional earnings, borrowing)

The size and timing decisions typically set up a trade-off between smaller outcomes received sooner versus larger outcomes received later - common in studies of hyperbolic discounting and time inconsistent preferences.

(see e.g., Laibson, QJE 1997; Frederick, Loewenstein and O’Donoghue, JEL 2002; Read, JDM 2004)
THE RESEARCH ISSUE

However, as a point of departure, we do not examine simple time inconsistency in these choices. Rather, we ask more mundane questions:

Does the trade-off outcome differ by the specific contingency to be addressed?
   - Social obligation vs. Personal medical expense vs. Investment opportunity
   - Base expenditure level (Relatively small, medium or large, defined in context)

Does the trade-off outcome differ as a function of how the resources are generated?
   Additional earnings (via extra work) vs. borrowing (at contextual interest rates).

The focus of-course is on subsistence marketplace consumers (rural women in households below the poverty line; INR 100: < $2 per day).

Note: The Rangarajan commission’s 2014 assessment of rural (urban) income poverty line in India is INR 32 (47)
BACKDROP

Qualitative interviews (each lasting around 2 hours) were conducted with ten women drawn from DWACRA (Development of Women and Children in Rural Areas) constituents in rural areas near Hyderabad, India. These were used to explore respondent background and employment, earnings, savings, consumption and debt contexts.

Information gathered in these interviews was used to design the main study protocol which included the following elements (with corresponding maximum time estimates):

- General information on participant (10 minutes)
- Contemporary life/consumption priorities (10 minutes)
- Three decision scenarios (10 minutes of discussion each)
- Close (5 – 10 minutes)

The average interview in the main study lasted between 45 – 60 minutes.
The interview protocol (described next) was written in English by the first two authors. It was then translated into Telugu by the third author. Another bilingual speaker read the translation and back-translated the protocol. Editorial changes were made to the Telugu protocol to address discrepancies.

Study respondents were 300 women from the villages of West Godavari district, Andhra Pradesh, India. All participants earned incomes of Rs 100 (approximately $2 or less) per day.

The research was implemented with the help of the Byrraju Foundation (a Hyderabad-based NGO) which runs rural social welfare programs in 16 villages. A random subset of 6 of these villages was chosen. BF’s social workers identified five local people who were trained (2-day period) to conduct the interviews. Ten test interviews (not analyzed) were conducted in the presence of the third author before the main data were collected.

The full set of interviews were completed over a period of about 2 months. Each interviewer met a quota of 60 usable responses (15 participants did not complete the study).
METHODOLOGY

The interview protocol embedded the experimental decision scenarios (administered verbally). The scenarios were used to create the following manipulations:

Decision Type: 3 levels *within* participant (300 observations per level)
(Social obligation, Personal Medical Expense; Investment opportunity)

Base Expenditure: 3 levels (between participant - 100 observations per level)
(INR 100/150; INR 500/750; INR 1000/1500)
(1/5 weeks; 5/9 weeks; 10/14 weeks)

Source of Funds: 2 levels (between participants – 150 observations per level)
(Earning or Borrowing)
METHODOLOGY

Choice: For each decision category
   For each expenditure level
   For each fund source

Decision between Smaller-sooner versus Larger-later outcomes
   INR 100 in 1 week versus INR 150 in 5 weeks
   INR 500 in 5 weeks versus INR 750 in 9 weeks
   INR 1000 in 10 weeks versus INR 1500 in 14 weeks

Debriefing asked for a brief explanation of the choice.
   first open-ended and then prompted for specific reasons (if not stated)
   social standing; work loss; perceived risk, etc.
DECISION SCENARIO 1
SOCIAL OBLIGATION

You have just learned your (favorite sibling or very close friend) will be getting married three weeks from now and you have to give a monetary gift to the bride and groom. The person is very close and special to you and you have decided to give a gift in the Rs. 100 to Rs. 150 range. However, you do not have money in your savings, will not be able to get a loan, and must earn this money by working extra on an upcoming Sunday (day off).

Since such extra jobs are not always easy to find, you approach your supervisor to see if any such work is available. After thinking about it, he tells you that there are two options that he can offer you. You can pick only one of the options since he would like to give the other option to another co-worker who also has a similar need for extra money. Also, you have promised yourself that you will give the entire money you earn that day as a gift. Your supervisor wants a quick answer from you since he needs to fix up the work schedules for you and your co-worker.
DECISION SCENARIO 1
SOCIAL OBLIGATION

The first option is to take up a one day job (8 hours) similar to your current job next week on a Sunday (your day off). This job will pay you Rs. 100 in cash net (after Rs. 10 in transportation cost). The money will enable you to make a less expensive gift, but you will be able to give it at the wedding.

The second option is to take up a one day job (8 hours) also similar to your current job. However, this job will only become available on a Sunday (your day-off) five weeks from now. This job will pay you Rs 150 in cash net (after Rs. 15 in transportation cost). The money will enable you to make a more expensive gift, but you will not be able to give it at the wedding, but only later.

Please think about the two options. The first option will pay you Rs. 100 which will enable you to make a less expensive gift, but give it at the wedding. The second option will pay you Rs. 150 which will enable you to buy a more expensive gift, but you will be able to give it only after the wedding.

Which option will you choose?
- The Rs. 100 job next week.
- The Rs. 150 job 5 weeks from now.
DECISION SCENARIO 2: PERSONAL MEDICAL EXPENSES

You have developed an illness that is making you quite sick for the past few weeks. Your local doctor has said that the problem may or may not be serious. However, to avoid later complications, he has suggested that you need some critical treatments. He has said that the treatment can cost between Rs. 500 to Rs. 750, depending on its likely effectiveness. However, you do not have money in your savings, will not be able to get a loan, and must earn this money by working extra on upcoming Sundays (days off).

As before, you approach your supervisor to see if any such work is available. Once again, he tells you that there are two options that he can offer. You can pick only one of the options since he would like to give the other option to a co-worker with a similar need for extra money. Also, you have promised yourself that you will spend the entire extra money that you earn on getting the treatment. As before, your supervisor wants a quick answer from you.
DECISION SCENARIO 2
PERSONAL MEDICAL EXPENSES

The first option is to take up a job (8 hours daily) similar to your current job for each of 5 Sundays (off-days) starting next week. This job will pay you Rs. 500 in cash net (after Rs. 50 in transportation cost) once you have completed five days of work, one day a week starting next Sunday (day off). This will enable you to get a less expensive, but also a less effective treatment.

The second option is to take up a job (8 hours daily) similar to your current job for each of 5 Sundays (off-days). However, this job will only become available starting five weeks from now. This job will pay you Rs 750 in cash net (after Rs. 75 in transportation cost) once you have completed five days of work, one day a week, starting five weeks from now. This will enable you to get a more expensive, but also a more effective treatment.

Please think about the two options. The first option pays a total of Rs. 500 in 5 weeks, which you can spend in getting a less expensive treatment, but which is also less effective. The second option pays a total of Rs.750 in 9 weeks, which you can spend in getting a more expensive treatment, but which is more effective.

Which option will you choose? The job paying Rs. 500 in 5 weeks from now. The job paying Rs. 750 in 9 weeks from now.
DECISION SCENARIO 3: INVESTMENT OPPORTUNITY

Your best friend has approached you with a very good business opportunity involving a partnership in the agency of a large company (e.g., Reliance). The offer is part of the company’s business development scheme for the urban poor. The opportunity is available for only a limited time since there is a large demand from many qualified people. You can make an up-front investment of Rs. 1,000 or Rs. 1,500 depending on the degree of ownership you wish. Like any business investment, this opportunity has risk, but also promises very good payoffs, which are higher for the higher level of ownership. As before, you do not have money in your savings, cannot get a loan, and must earn this money by working extra on upcoming Sundays (days off).

You approach your supervisor to see if any such work is available. He tells you that there are two options that he can offer. You can pick only one of the options since he would like to give the other option to a co-worker with a similar need for extra money. Also, you have promised yourself that you will spend the entire extra money on the investment. Your supervisor wants a quick answer from you.
DECISION SCENARIO 3
INVESTMENT OPPORTUNITY

The first option is to take up a job (8 hours daily) similar to your current job for each of 10 Sundays (off-days) starting this upcoming week. This job will pay you Rs. 1,000 in cash net (after Rs. 100 in transportation cost) once you have completed ten days of work, one day a week starting next Sunday (day off). This will provide sufficient money for the lower level of investment in the business opportunity.

The second option is to take up a job (8 hours daily) similar to your current job for each of 10 Sundays (off-days). However, this job will only become available starting five weeks from now. This job will pay you Rs. 1,500 in cash net (after $150 in transportation cost) once you have completed ten days of work, one day a week, starting five weeks from now. This will provide sufficient money for the higher level of investment in the business opportunity.

Please think about the two options. The first option pays a total of Rs. 1,000 in 11 weeks, which you can invest in the lower level business opportunity, but which has less future income potential. The second option pays a total of Rs.1,500 in 15 weeks, which you can invest in the higher level business opportunity that has higher future income potential.

Which option will you choose?
- The job paying Rs. 1,000 in 11 weeks from now.
- The job paying Rs. 1,500 in 15 weeks from now.
DECISION SCENARIOS
(EARNING VERSUS BORROWING)

Borrowing scenarios were identical to those above, except that the job options were replaced by options to borrow identical net amounts from the local money lender (10% interest deducted up front at the time of the loan). Note that this amount equalled the corresponding transportation cost in the earning options.

No reference was made to a repayment time frame (we expected that referring to a repayment would make the eventual need to earn salient and suppress differences).
RESULTS

Binary choice data (smaller sooner versus larger later).
DV = Proportion choosing the smaller-sooner outcome

A binary logit analysis shows:

All three main effects (decision; expenditure level; source) are significant. (p’s < .001)
All three 2-way interactions are significant (p’s < .02)
The three way interaction is significant (p < .001)
RESULTS

% CHOOSING SMALLER-SOONER OVER LARGER-LATER OUTCOME

- 100/150
- 500/750
- 1000/1500
SUMMARY OF RESULTS

Social Obligations:

When the base expenditure level is low, significantly greater proportions chose the smaller sooner outcome when the resources are borrowed (86%) versus earned (44%).

When the base expenditure level is mid-range, borrowed (76%) versus earned (73%) source of resources did not affect the proportion of smaller-sooner outcome choices (which remains relatively high).

However, when the base expenditure level was high, fewer (46%) people choose the smaller sooner outcome when the resources are borrowed versus earned (61%). In other words, a majority chooses the larger later outcome when the resources are borrowed.

With small and moderate sized obligations, timeliness had strong status associations. When the obligation is more substantial, timeliness matters less. Respondents associated status more with gift size. This emphasis is acted on more via borrowing versus earning.

The search for status may create large obligations that exacerbate indebtedness. Yet, participant protocols explain the behavior by expectations of reciprocity in their own time of need.
RESULTS

% CHOOSING SMALLER-SOONER OVER LARGER-LATER OUTCOME
SUMMARY OF RESULTS

Medical Expenses:

The vast majority chose the smaller sooner outcome irrespective of whether the resources are borrowed (80%; 80% and 76%) or earned (63%; 65% and 62%). The size of the base obligation had little impact.

With earned (versus borrowed) resources, the propensity to choose the larger later outcome was higher (37% vs. 21%). Still, the proportion of people choosing the more expensive but more effective treatment was relatively small.

Respondents said that they want a quicker check because they might get sicker and lose work time. Fear of work loss led to heavy discounting of the more effective later treatment in all conditions. The choice was insensitive to the baseline amount involved.

The absence of a “safety net” of savings seems to drive the more expedient (less expensive) option. Interestingly, earned resources provide some degree of “permission” to seek the more effective treatment.
RESULTS

% CHOOSING SMALLER-SOONER OVER LARGER-LATER OUTCOME
SUMMARY OF RESULTS

**Investment Opportunity**

When the base investment level is low, significantly greater proportions chose the smaller sooner investment when the resources are borrowed (86%) versus earned (54%).

When the base investment level is mid-range, borrowed (67%) versus earned (71%) resources did not affect the proportion of smaller-sooner investment choices (both are relatively high).

However, when the base investment level is high, a majority chose the smaller sooner investment when the resources are borrowed (67%) versus when they are earned (25%). In other words, the vast majority chose the larger later outcome only when the resources are earned.

Respondents express concern regarding investment risk and were unwilling to invest borrowed money for fear of loss. However, with earned money, they are more willing to choose the larger later outcome (i.e., make the larger investment) because they feel safer risking earned versus borrowed money.

The behavior seems counter to leveraging principles in conventional entrepreneurial investment decisions. Whether this has economic and/or cultural roots remains an open question and is important to assess in positioning interventions to promote entrepreneurial activity in subsistence markets.
CONCLUSION

Limitations

Study Context: Inherently limited scenario study, but…
Situations were constructed based on real circumstances revealed in preliminary interviews.

Fieldwork: The locally trained interviewers did not always pursue conversations to a desirable depth. There is a possibility of socially desirable responses to someone from their own community. However, the interviewers’ community embed may have helped damp fabrication and, in any case, was critical to collecting any data at all. “Losses in translation” and lack of researcher familiarity with language and respondents.

Design: The trade-off always involved alternative options. “No choice” was not an option.
Limited insights into the decision floor (no gift, no test, no investment).
Prior calibration guided the amount chosen.
Repayment time frame unspecified (not controlled or manipulated) in the borrowing condition.
Individual (versus group) decision focus of study – no assessment of social influence.
CONCLUSION

Ongoing Work

Contrasts with affluent samples:
- Managing social obligations (status, timeliness and reciprocity concerns)
- Medical treatment choices (self versus family; time inconsistency drivers – procrastination or affordability)
- Investment decisions (attitude towards investment, borrowing and leveraging)
- Individual differences (economic, cognitive, motivational, and socio-cultural anchors)

Emic Perspectives:
- Overcoming the limitations of the present data – eliminating assessment losses.
- Language skills in interpretation (US, West Bengal, Bangladesh and North Indian samples)
- Co-investigators (Rwanda, Peru and Ecuador)

Other Consumption Issues
- Temporal construal (c.f. Ledgerwood, Trope and Liberman, in press)
- Do the poor really have a richer construal of distant events?