Decision-Making in the Context of Poverty and the Application of Behavioral Research to Policy

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Milgram’s Obedience Studies

“Teachers” punish “learners’” (confederates’) errors with a shock generator...
Voltage increased with each incorrect answer, from 15 volts ("mild shock"), to 375 volts ("Danger: severe shock"), to 450 volts ("XXX")

- 75, 90, 105 volts: grunts
- 150 volts: “Get me out of here! I told you I had heart trouble. My heart’s starting to bother me now. I refuse to go on!” …
- 270 volts: screams of agony …
- 330 volts: silence

Prods: “please continue”
“the experiment requires that you continue”
“it is absolutely essential that you continue”
“you must go on”…
At what point will the “teacher” refuse to obey?

Milgram asked psychiatrists, students, and other adults for their predictions:

- everyone predicted disobedience
- average prediction: 135 volts
- no one predicted they would go beyond 300 volts
- psychiatrists predicted 1/1000 would go to 450 volts

Instead:

Every participant obeyed up to 300 volts!
65% went all the way to 450 volts!
The Power of the Situation

The Tendency to Underestimate the Power of the Situation
Smoke-filled room…

Alone, with 2 strangers, or 2 confederates
Within 4 minutes of smoke pouring into room from vent…

   Alone = 75% reported smoke
   2 strangers = 38%
   2 passive confederates = 10%

Other people’s lack of a reaction as a cue...

(Latane & Darley, 1968)
The social sciences implicate the person and the situation.

Both are fundamentally unique when it comes to the poor.

The situation is complex and difficult to maneuver.

The people are cognitively taxed, depleted, and hence error prone...
Indian fruit vendors (debt traps...)

- Indian fruit vendors: Persistent borrowers
  - (70% borrow daily…; average: 9.5 years of taking daily loans!!)

- At very high rates (4.9% average daily interest rate)

- Stark implication:
  - Very small daily savings: In 30 days will have doubled income

- Significant foregone income
Conditions of scarcity (in money, time...) produce their own psychology. This psychology, in contexts of scarcity, produces characteristic behaviors.

Situation: complex and difficult to maneuver

Person: cognitively taxed, depleted, error prone...
The Packing Problem: A Suitcase metaphor

Larger suitcase:
- pack everything important w. room to spare
- easy to leave slack, in case something comes up

Smaller suitcase:
- pack the very essentials
- need to choose among important items that can’t fit
- hard to maintain any slack

Result: Constant tradeoff thinking
Vigilance, Attn to size of items
Tradeoffs:
% who think about what they would not buy instead…

(US)

(India)
Taxi fare when you first get in?... (South Station)
Psychology of Scarcity

- Persistent tradeoff thinking
- More complicated / demanding packing...
- Greater vigilance (attentiveness, knowledge...)

→

- Tunneling
  - Horizon shortening ("myopia...")
- Distraction
  - Depletion, Error...
20 rounds
“Rich”: 50 sec / rnd (1000 sec total)
“Poor”: 15 sec / rnd (300 sec total)
No borrowing vs. High Interest Borrowing

How about giving this one a try?

(1)
(2)
(3)
(4)
(5)

Name a specific item that you have on the patio...

chair

enter guess!
Rounds Completed

Points Earned

P < .001
Calorie Scarcity Hypothesis: Tempting foods monopolize the attention of dieters (more than of non-dieters...)

Scarcity can be distracting..
### Food condition

![Word Search](image)

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**CAKE**

- TREE
- DONUT
- CLOUD
- SWEETS
- LAMP
- INDULGE
- RAIN
- DESSERT
- DOOR
Control condition

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**STREET**
- TREE
- PICTURE
- CLOUD
- CARPET
- LAMP
- DAYTIME
- RAIN
- VACUUM
- DOOR
Search times – for neutral targets -- by condition and group

(3 practice trials)
Interaction: Significant!
Financial challenges...

In a NJ mall: Participants think about financial challenges, and complete cognitive tasks...

*Imagine that your car...requires a...[hard: $1,500; easy: $150] service... How would you go about making this decision?...*
Cognitive control task

press the same side as the heart
press the opposite side as the flower

Measures cognitive control & executive function…

“Driving test”…

Raven's Progressive Matrices

“Measures high-level observation skills, clear thinking ability, and intellectual capacity.”

“Intelligence test”…
Cognitive Control

Performance in financial challenge

Raven’s Matrices

Rich

Poor

Easy (cheap)

Hard (Expensive)
Sugar cane farmers in India…

Significantly greater # of errors pre-harvest compared to post-harvest…

(Also heart rate, blood pressure, etc.)
Institutions/contexts can impact ease of packing

- Part time versus salary (Entrepreneurs/farmers versus jobs)
- Predictability, accounting ease.
- Insurance, family, no-interest loans, etc.
- Channel factors; Nudges (e.g., defaults)

Bad design of programs

- Flood (disaster) relief payments, EIC, are paid in lump sum
- Microfinance repayment rigidity complicates packing problem
- Psychic taxes… Default deposits / payments, forms…

Scarcity: function of environment (not just income..)

If have buffer stock of savings, insurance to deal w. shocks, family/friends, etc. may experience less scarcity at same level of income. \textit{(Portfolios of the Poor...)}

Policy Implications...
Figure 1: Caloric Intake Over the Month
Smoothing consumption from windfalls

(LS: 300 sec; HS: 1000sec; N=135)
Subsidized bank accounts, (Bertrand, Mullainathan, & Shafir; Center for Economic Research & Shorebank; Providing low-fee bank accounts to poor)

- Prior program: limited effectiveness (<50% take-up)
- Follow-up surveys: 90% reported intending to; but forgot, misplaced relevant forms, etc…

- Standard (2-hr) workshop; If workshop participant interested in FA:
  - Referral letter to take to the bank, OR
  - Sign up on site w. bank representative present at workshop

  Presence of a bank rep.: significantly increased opening / keeping an account; decreased check cashing & borrowing from family.

(Intervention -- ~10 pct. pts. -- has greater impact than choosing to be there or not, ~8 pct. pts…)
Actual prob. of behavior: often does not increase with intention strength ("failed" educ.)

Manipulations designed to strengthen intentions to carry out a behavior:
larger impact on self-predictions but not on behavior ("misjudgment")

Manipulations designed to influence ease with which intentions are translated into behavior (e.g., access, reminders):
larger impact on behavior than on self-predictions (increased welfare!)

(Koehler & Poon, 2006)
401(k) participation by tenure at firm: Company B

- Hired before automatic enrollment
- Hired during automatic enrollment
- Hired after automatic enrollment ended

FAFSA Forms

(Bettinger, Long, Oreopoulos & Sanbonmatsu, 2009)
Payment Information

New Balance Total ........................................... $897.30
Current Payment Due ........................................... $15.00

Total Minimum Payment Due .......................... $15.00
Payment Due Date ........................................... 4/12/10

Late Payment Warning: If we do not receive your minimum payment by the
date listed above, you may have to pay a late fee of up to $39.00.

Minimum Payment Warning: If you make only the minimum payment each
period, you will pay more in interest and it will take you longer to pay off your
balance. For example:

<table>
<thead>
<tr>
<th>If you make additional charges using this card and each month you pay</th>
<th>You will pay off the balance shown on this statement in about</th>
<th>And you will end up paying an estimated total of</th>
</tr>
</thead>
<tbody>
<tr>
<td>Only the minimum payment</td>
<td>7 years</td>
<td>$1,249.23</td>
</tr>
<tr>
<td>$28.91</td>
<td>36 months</td>
<td>$1,040.76 (Savings = $208.47)</td>
</tr>
</tbody>
</table>

If you would like information about credit counseling services, call
1-866-300-5238.

Account Summary

Previous Balance ........................................... $0.00
Payments and Other Credits ................................ 0.00
Purchases and Adjustments .................................. 897.30
Fees Charged .................................................. 0.00
Interest Charged ............................................. 0.00

New Balance Total ........................................... $897.30
Credit Line ..................................................... $10,000.00
Credit Available ............................................ $9,102.70
Statement Closing Date ..................................... 3/16/10
Days in Billing Cycle ...................................... 31
For closing balance of $2720.12, APR: 15.24%, and minimum required payment is $54.

<table>
<thead>
<tr>
<th>If you make no additional charges using this card and each month you pay...</th>
<th>You will pay off the balance shown on this statement in about...</th>
<th>And you will end up paying an estimated total of...</th>
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<td>21 years</td>
<td>$5,936</td>
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<tr>
<td>$95</td>
<td>3 years</td>
<td>$3,411 (Savings=$2,525)</td>
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Re-design: Fault tolerant policy with psychic taxes in mind

- What do we charge for programs?
- What are the psychic taxes for programs?
- Conditional cash transfers.
- Training programs. (unforgiving of lapses.)
- One point of access to broad program network: fluid enrollment...
- More fault tolerance
A poor ‘identity’

Identity salience in the context of welfare benefits programs (EITC and local VITA sites) ...

<table>
<thead>
<tr>
<th>Condition</th>
<th>Neutral</th>
<th>Affirmation</th>
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<td>Stopped to consider</td>
<td>44%</td>
<td>58%</td>
</tr>
<tr>
<td>Of those, took the information</td>
<td>36%</td>
<td>79%</td>
</tr>
<tr>
<td>(Total take up:)</td>
<td>16%</td>
<td>46%</td>
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</table>
Cognitive control task

press the same side as the heart
press the opposite side as the flower
Ironic of Poverty

- Poor must make higher quality decisions
  - Packing problems are harder under scarcity
  - Many more temptations under scarcity
  - Can’t afford mistakes under scarcity

- Poor are in worse position to make high quality decisions
  - Distracted by other stressors/decisions/conditions
  - Depleted by challenges/temptations/past failures
  - Hampered by context/culture/stereotype
  - Unappreciated! (Both they and their packing problems...)
Thank you!