Scarcity: Why Having Too Little Means So Much

Eldar Shafir
Princeton University
Two Dominant Views of Behavior under Poverty

Rational Choice view
– Consistency, Willpower, Well-defined preferences,..
– Behavior: calculated adaptation to prevailing circumstances

Pathology view
– Psychological pathologies specific to the poor
– Impatient, no planning, confused
– Behaviors endemic to “culture of poverty”

An alternative:
Neither rational nor pathological; just plain human…
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: If saved a little (& borrowed less), in **50 days**
  will have doubled **income**

• Significant foregone income
Adherence...
Low income: One of the most consistent correlates of low adherence

Weeding...
High return: losses due to uncontrolled weed growth (>25%...)
Consistent finding: Poor less likely to weed

Parenting...
Attention, consistency, engagement,...
Consistent finding: Poor are worse parents

Payday Loans...
Short-term high (extremely high) interest loans...
Understanding Behavior in Poverty

Is there something intrinsic to poverty? (besides the many covariates..)

The psychology of scarcity...

Conditions of scarcity (in money, time…) produce their own psychology.

This psychology, in contexts of scarcity, produces characteristic behaviors.
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 don’t fit
- hard to maintain any slack

• Slack makes it easier to pack; Complexity higher when suitcase tight
  – Slack reduces cognitive cost: requires less focus, less vigilance

• Bigger suitcase means slack is “cheaper”
  – What you give up to maintain slack is (marginally) cheaper
Focus – quite successfully -- on immediate prices & tradeoffs...
(but less mind left for other things…)

The poor: A greater focus on tradeoffs
(% who think about what they would not buy instead…)

The poor: Know prices better
(Taxi fare when you first get in? South Station, Boston)

The poor: Know prices better
(Taxi fare when you first get in? South Station, Boston)

The poor: Know prices better
(Taxi fare when you first get in? South Station, Boston)
Percent willing to travel 45 mins to save $50:

- $100: 50%
- $500: 30%
- $1,000: 10%
Percent willing to travel 45 mins to save $50:

- HI (PrincetnNJT)
- LI (Soup Kitchen)
Willingness to travel to save $25…
(out of $800 / $100)
(South Station, Boston)

Across a wide set of classic behavioral findings…

The poor’s assessment of price and value: more robust; less affected by context and “frame”…
Heritage Foundation, 2011 Report: the poor in America “have air conditioning, cable TV, and a host of other modern amenities.”

“This report proves that poor people are just not living down to our expectations. If you still have the strength to brush the flies off your eyeballs, you’re not really poor.”

Stephen Colbert

“I’d never realized that poor people in this country had it so good. No wonder the middle class is pouring into their ranks in droves!”

Jon Stewart

"A linen shirt, for example, is…not a necessity of life. The Greeks and Romans lived…very comfortably though they had no linen. But in the present times, through the greater part of Europe, a creditable day-labourer would be ashamed to appear in public without a linen shirt. …”

Adam Smith, *Wealth of Nations*
<table>
<thead>
<tr>
<th>Poor in...</th>
<th>Money</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Tradeoffs:</strong></td>
<td>If I buy this, what do I <em>not</em> buy instead?</td>
<td>If I do this, what do I <em>not</em> do instead?</td>
</tr>
<tr>
<td><strong>Temptations:</strong></td>
<td>Basic goods turn into “luxuries”</td>
<td>Basic activities turn into “luxuries”</td>
</tr>
<tr>
<td><strong>Indulgences:</strong></td>
<td>Given what you owe, what are you doing spending?!</td>
<td>Given what you owe, what are you doing here schmoozing?!</td>
</tr>
<tr>
<td><strong>More consequential:</strong></td>
<td>When there’s lack of slack, bad tradeoffs, giving into temptation / indulging - all more consequential!</td>
<td></td>
</tr>
</tbody>
</table>
SCARCITY

A source of demand on cognitive capacity…
Cognitive Capacity

Is Captured by Scarcity (a limited resource)

Automatically (we focus...)

our mind has a life of its own...
SCARCITY IS TOP OF MIND

WATER

JUICE

SODA

THIRST

CHAIR

FRIENDS

TREES

TALKING
Search times – for neutral targets – by condition and group

and SCARCITY IS DISTRACTING…
FINANCIAL CHALLENGES

(in a NJ mall…)
Measures cognitive control & executive function…

“Driving test”…

RAVEN’S PROGRESSIVE MATRICES

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

“Intelligence test”…

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

COGNITIVE CONTROL TASK

RAVEN’S PROGRESSIVE MATRICES
COGNITIVE CONTROL

RAVEN’S MATRICES

Mani, Mullainathan, Shafir, & Zhao, *Science*, 2013
Raven's Matrices

Cognitive Control

Cognitive Control

Accuracy

RT (s)

Errors

Pre-harvest Post-harvest

Pre-harvest Post-harvest

Pre-harvest Post-harvest

***

***

***
So far...

Scarcity is demanding of attention (intentionally *and* automatically)

It focuses us on immediate problems of scarcity, often at the expense of other things; distracting us and shortening our horizons...

And this is not about *the* poor – it’s about *being* poor...
20 rounds
“Rich”: 50 sec / rnd (1000 sec total)
“Poor”: 15 sec / rnd (300 sec total)
No borrowing vs. High Interest Borrowing

Debt Traps

Smoothing consumption

Figure 2. Average observer ratings of parent behavior on days with high and low perceived workload.
Irony of Poverty

• Poor must make higher quality decisions
  – Greater packing challenges under scarcity
  – Greater attention consumed under scarcity
  – More temptations under scarcity
  – Can’t afford mistakes under scarcity

• Poor are in worse position to make high quality decisions
  – Distracted by stressors/decisions/conditions
  – Depleted by challenges/temptations/load
  – Hampered by context/culture/stereotype
  – Unappreciated! (Both they and their packing problems...)
POLICY MAKERS NEED TO CARE ABOUT BANDWIDTH

Scarcity (e.g., in money) causes scarcity in bandwidth. (regressive tax).

Scarcity: function of one’s environment (not just income)!

- buffer savings, insurance to deal w. shocks, family/friends, can mean less scarcity at same level of income. (*Portfolios of the Poor…*)

Institutions/contexts can impact ease of packing

- Predictability (work hours, salary); Accounting ease; Nudges (defaults), Channel-factors (in vs out of the “tunnel”); Insurance
- Dodd-Frank, Consumer Protection, Qualified mortgages,…

Bad design of programs; psychic taxes, in/outside the tunnel…

- Relief payments (flood disaster), EIC, are paid in lump sum
- “Character obstacles” - time, self-presentation, planning…
- Lifetime welfare limits (SNAP); Penalize but fail to motivate
- Recertification (SNAP), long forms…
POLICY MAKERS NEED TO CARE ABOUT BANDWIDTH

Retirement Savings

FAFSA forms

(Bettinger, Long, Oreopoulo & Sanbonmatsu, 2009)
PUT A LOCK ON MARKET GAINS

Portfolio Insurance: Can You Afford It? Go Without It?
Portfolio insurance is being termed the most important new investment product of the decade. Billions of dollars of pension fund, endowment, and trust assets now enjoy the security of Leland O’Brien Rubenstein’s portfolio protection programs, without missing the potential for further upside gain. With the market at new highs, isn’t it time to consider locking in your gains? Leland O’Brien Rubenstein (LOR) originated portfolio insurance programs more than five years ago with the introduction of Dynamic Asset Allocation. But we aren’t resting on our laurels. The leader moves further ahead.

We are now offering four major enhancements to give pension funds even more flexibility at lower cost:

- PERPETUAL PROTECTION ” allows insurers to leave protection programs in place as long as they wish. With no artificial expiration date, traders feel protected and retain more flexibility. Many programs can start unbundled, minimizing protection costs when markets rise.
- INFLATION EQUITY PROTECTION ” provides the assurance of meeting pension liabilities. In contrast to traditional dedicated bond portfolios, LOR allows significant participation in equity markets, making it the logical successor to dedicated strategies.
- TRADING OPTIMIZATION ” optimizes trading 'rules' that reduce turnover while achieving investment objectives.
- OPTIONS INTERVENTION ” extends index options as well as index futures to minimize required trading and reduce protection costs.

Only LOR’s system offers this full range of protection programs and enhancements. It is available from LOR or the following organizations:
- Aetna Life Insurance Company
- BMA Associates, Inc.
- Audax Capital Management
- Collins Investment Advisors
- Capstone Asset Management
- First Chicago Investment Advisors
- Webster Capital Management
- Wells Fargo Investment Advisors
- Western Asset Management Company

For further information, call Larry Edwards, President, (212) 644-3377.

LELAND O’BRIEN RUBENSTEIN ASSOCIATES INCORPORATED
707 Wilshire Boulevard, Suite 1320
Los Angeles, CA 90017


DAVIS TOWN, ST. ANN

The Urban Development Corporation has residential and commercial serviced lots for sale in Davis Town on the Main Road from Lydhood to Steer Town in the parish of St Ann.

- Residential
  Lot sizes range from 200 sqm to 400 sqm
  Prices range from J$ 636,020.00 to J$ 843,700.00

- Commercial
  Lot sizes range from 200 sqm to 703 sqm
  Prices range from J$778,800.00 to J$1,677,400.00

- Paved Roads
- Water and Electrical Supply available

Interested persons may contact:
Davis Town Sales Office
Shop 5
Ocean Village Shopping Centre, Ocho Rios
Tel: 974-8863

Marketing and Property Development Department

Liberty Mutual

“People and Ideas Working Together”

Why do we work at Liberty Mutual? It’s for the collaboration and teamwork. Liberty Mutual is a $67 billion industry leader totally focused on providing a better future for both customers and employees alike. For us, that not only speaks volumes, it says it all.

Career opportunities are available throughout the country in the following areas:

- Claims
- Sales
- Writing
- Accounting/Finance

We offer our employees exciting career growth opportunities, flexible time-off, tuition reimbursement, medical and dental coverage, 401(k) retirement benefits, and much more. Interested candidates, please forward your resume, indicating Source Code (e.g., Corporate Employment, Mail Stop D1C, Source Code: NA10001), Boston, MA 02117.
Email: careers@libertymutual.com, Fax: (603) 422-9670.

Liberty Mutual is an equal opportunity employer committed to workforce diversity. Helping people live safer, more secure lives.
Behavioral ("Marketing") Manipulations:

- # of loan examples shown
- subtle peripheral cues; photos

Some results:
1 vs. 4 examples: ~ 2.3 percent. points
For males: female picture = ~ 4.5 points
Design life’s cockpit with scarcity & bandwidth in mind…

Aim to provide more bandwidth (pay day, work shifts, child care, transportation)
Aim to demand less bandwidth (reminders, flex demands, Financ. literacy?!?!)
Create more scarcity-proofing… (e.g., prof. training, consumer protection)

Because it’s the only bandwidth we got…
Thank you!