

# A Behavioral Perspective on Financial Literacy and Decision Making

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## The predominant view (Rational agent model):

well informed; stable preferences (mostly about tangibles); controlled, self-interested (selfish), calculating...

Implications: people maximize; know what's knowable, exploit opportunities; need no help from others, and no protection from themselves.

## Behavioral (empirical/experimental) view:

mediocre judgment; malleable preferences; impulsive, myopic, distracted...

Implications: inconsistent, ineffective; could benefit from some attention and help.

# Milgram's Obedience Studies

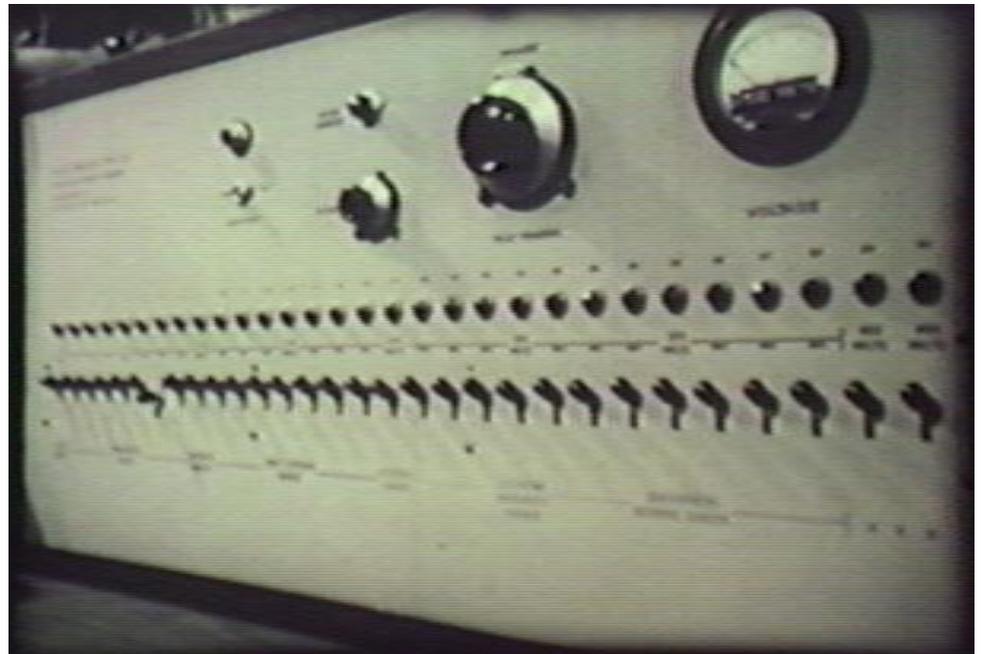
“Teachers” punish “learners” (confederates) errors with a shock generator...



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”...



MAX.

MAX.

135  
VOLTS

MAX.

MAX.

MAX.

105  
VOLTS

MAX.



STRONG  
SHOCK

VERY STRONG  
SHOCK

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

A trivial but profound fact:

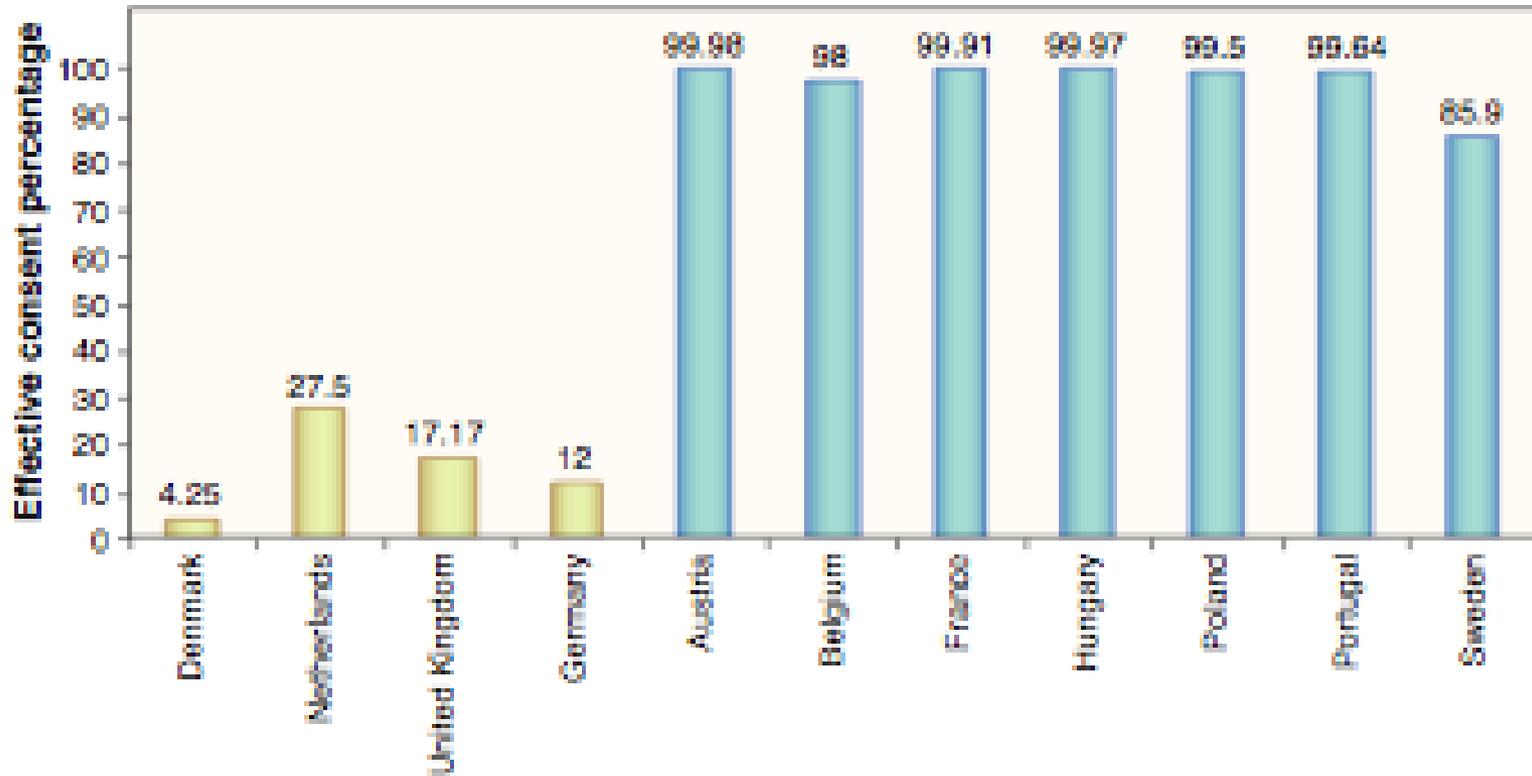
Decisions are not about objective states of the world,  
but about our mental representations of those states

Behavioral research: The importance of context and construal  
(in survey responses, language, perception, judgments, decisions, social /  
political life, etc...)

## Intention versus action

- ❖ Informational, educational, consciousness-raising campaigns, can alter intention.
- ❖ The design of helpful access, clever decision-aids, insightful contexts, can impact action.

# Attitudes and the Power of Defaults



Effective consent rates, by country. Explicit consent (opt-in, gold) and presumed consent (opt-out, blue).

Because context plays such a key role:  
Intention-Action tension

Actual prob. of behavior: often does not increase with intention strength (“failed” educ.)

Manipulations designed to strengthen intentions to carry out a behavior :

large 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!)

# The Save More Tomorrow Plan (SMarT; Benartzi & Thaler)

- People pre-commit to saving more in the future.
- Saving increases are synchronized with salary increases.
- People remain in the plan unless they drop out.

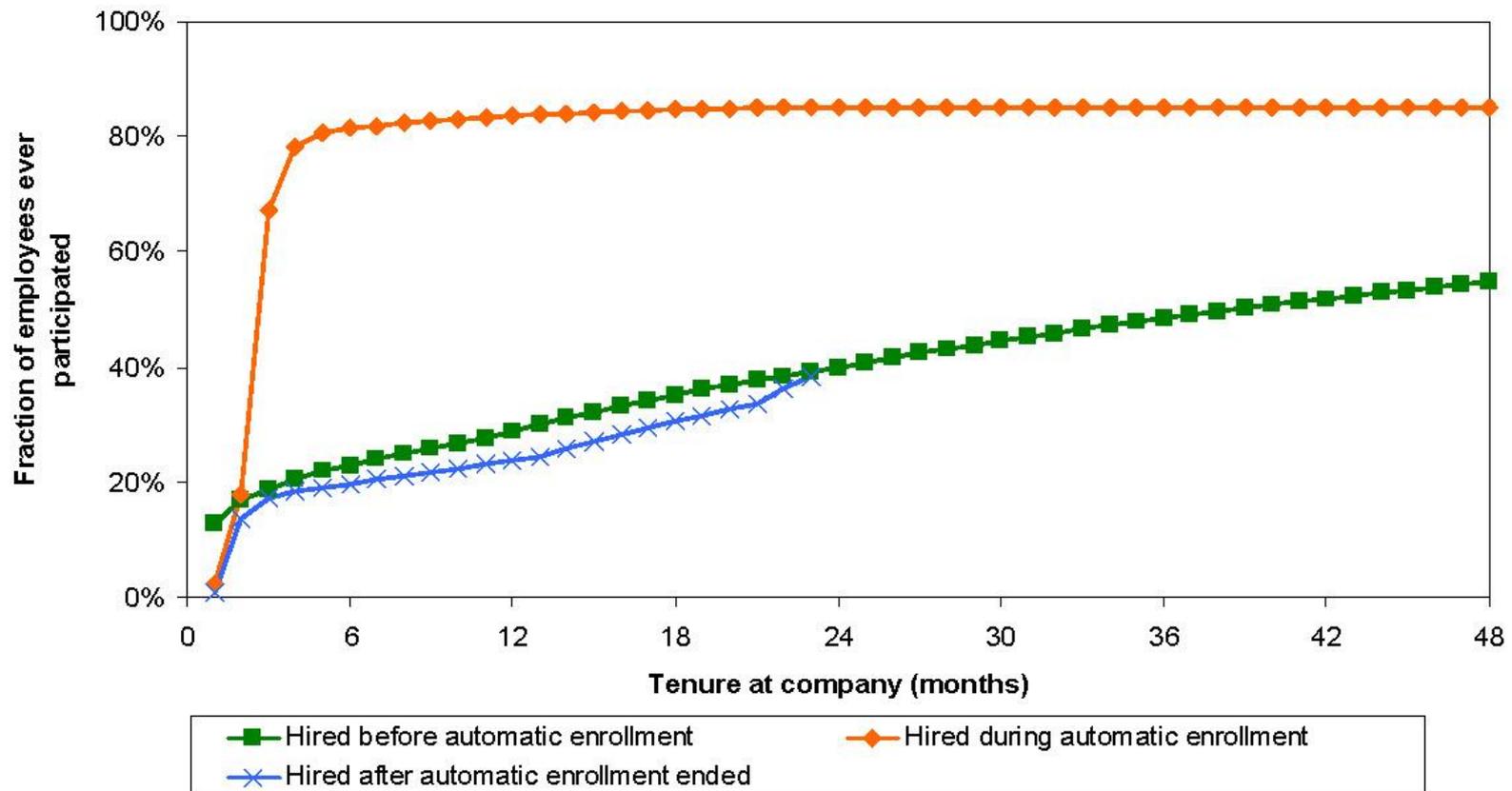
# Results in First Implementation

	ALL	No Advice	Took Advice	Took SMarT	Declined Advice
N	315	29	79	162	45
Pre-advice	4.4%	6.6%	4.4%	3.5%	6.1%
1 <sup>st</sup> Pay Raise	7.1%	6.5%	9.1%	6.5%	6.3%
2 <sup>nd</sup> Pay Raise	8.6%	6.8%	8.9%	9.4%	6.2%
3 <sup>rd</sup> Pay Raise	9.8%	6.6%	8.7%	11.6%	6.1%
4 <sup>th</sup> Pay Raise	10.6%	6.2%	8.8%	13.6%	5.9%

## Automatic enrollment effect

**Automatic enrollment dramatically increases participation.**

401(k) participation by tenure at firm: Company B





24  
HOUR

FITNESS

FITNESS  
WORLD'S STRONGEST  
WOMEN LOCATED  
MONDAY-SATURDAY  
10 AM-6 PM

WELCOME TO  
OUR GYM

FITNESS

24  
HOUR

POINT LO...  
HANICAL  
TO UPPER  
LOCATED  
24 HOUR

# What's Advertising Content Worth? Evidence from a Consumer Credit Marketing Field Experiment (Bertrand, Karlan, Mullainathan, Shafir, Zinman; *Quarterly Journal of Economics*, forthcoming)

Account Number 105349191

BUSINESS HOURS  
MON - FRI: 08:00 - 18:00  
SAT: 08:00 - 12:00

SIYASIKHULUMA  
ISIZULU

**A special rate for you.**

Congratulations! As a valued client, you are eligible for a special interest rate on your next cash loan from [REDACTED]. This is a limited time offer so please come in by 31 October 2003 to take advantage of this offer. You can use this cash to pay off a more expensive debt, repair your home, buy an appliance, pay for school or for anything else you want.

Enjoy low monthly repayments with this offer! For example:

	4 Months	6 Months	12 Months
Interest %	22%	20%	18%
R500	R122.20	R110.56	R80.54
R1000	R196.65	R180.45	R110.25
R2000	R222.70	R200.56	R180.35
R4000	R382.27	R300.99	R250.54

LOAN AVAILABILITY SUBJECT TO TERMS & CONDITIONS

Loans available in other amounts. There are no hidden costs. What you see is what you pay.  
If you borrow elsewhere you will pay 10% more in interest payments on a R2000, 4 month loan!

**How to apply:**  
Bring your ID book and latest payslip to your usual branch, by 31 October 2003 and ask for  
To extend your deadline, call 0860 333 0004 or SMS 0860 222 334.

**WIN**  
10 CELLPHONES  
UP FOR GRABS  
EACH MONTH!

PS: Unfortunately, if you have already taken a loan since the date this letter was issued, you do not qualify for this offer

South African lender (Experienced clients, real & substantial payoffs, etc.)

- Customers receive a letter offering loan
- Randomized interest rates  
3.25%-11.75% (monthly)

Behavioral (“Marketing”) Manipulations:

- (• subtle peripheral cues; photos
- promotions, reminders...)
- # of loan examples shown

Some results:

1 vs. 4 examples: ~ 2.3 percent. points

For males: female picture = ~ 4.5 points

(Unwanted) promotion = ~ 4 points

# Work on Poverty: Two Dominant Views

## Rational Choice view

- Consistent, calculating, well-defined preferences, willpower..
- Behavior: calculated adaptation to prevailing circumstances

## Pathology view

- Psychological pathologies specific to the poor
- Impatient, no planning, uninformed
- Behaviors endemic to “culture of poverty”

## An alternative:

Neither rational nor pathological; just plain human, prone to nuanced construal, contextual factors (inherent to poverty), etc.

# The (poor) unbanked..

## Rational Choice explanation:

High costs of accessing financial services: Banks are far, expensive; avoid serving the poor

### Policy Implications:

Force coverage in poor areas; Subsidize accounts held by the poor; Offer financial incentives

## Pathology explanation:

Culture of poverty. deep distrust, misunderstand, lack of education, wrong “values”, myopia

### Policy Implications:

Financial education and training; Teach budgeting and planning  
Early interventions in children

## Behavioral explanation: “minor” situational factors?...



What if Unbanked due to (among other things)?:

Nuisances (sneers from teller, babies in tow..), Unfamiliarity, Conscious violation of social norms, Mismatched “identity”

Federal Reserve Bank (2000) asked un-banked why no checking account. Among top reasons: Do not like dealing with banks.

Policy analyst / economic theorist: “You’ve got to be kidding! Trivial given the huge advantages. Brief aversive experience vs. lifetime of benefits!?!”



*Center for  
Economic Progress*

*Promoting Financial Empowerment and Self-Sufficiency*



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Let's change the world.™

**Subsidized bank accounts**, (Bertrand, Mullainathan, & Shafir; Center for Economic Research & Shorebank; Providing low-fee bank accounts to poor)

- Prior program proved of 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...)

# A poor 'identity'



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

	Condition:		
	<u>Neutral</u>	<u>Affirmation</u>	
Stopped to consider:	44%	58%	( <i>ns</i> )
Of those, took the information:	36%	79%	$p=.03$ .
(Total take up:)	<u>16%</u>	<u>46%</u>	

# “Irony of poverty” context

- Recurring scarcity poses major decision-making challenges. As economic resources become depleted, so do cognitive energies.
- Financial shocks met with late bill payments, pay day lenders, depletion, identity threat, more shocks...
- Feedback cycle: coping mechanisms make matters worse.
- Scarcity calls for good decisions at the very time one is least able to make them.

# The firm & the individual

Market neutral / wants to overcome consumer fallibility

Market happy to exploit consumer fallibility

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Consumers misunderstand compounding in *savings*

→ Banks would like to *reduce* this so as to increase savings base

Consumers misunderstand compounding in *borrowing*

→ Banks would like to *exploit* this to increase borrowing

pro  
crastin  
ation

Consumers procrastinate in signing up for EITC

→ Tax filing companies would like to *reduce* this, to increase # of customers

Consumers procrastinate in returning rebates

→ Retailers would like to *exploit* this so as to increase revenues

# Behaviorally informed regulation

Market neutral / wants to overcome consumer fallibility

Market happy to exploit consumer fallibility

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Public education on saving Direct deposit/auto-save Licensing	Opt-out mortgage (credit card, etc.) system Information debiasing
Tax incentives for savings plans for poor	Penalties to make opt-out system “sticky” Ex post liability standard for truth in lending Broker fiduciary duty

- Benefits
  - Reduces reliance on simple non-understanding
  - Reduces “evasion through compliance”
  - Puts incentives on lenders to disclose appropriately
- Risks
  - Uncertainty raises costs of lending for complex products that might benefit some (many?) borrowers

“We consumers are not expected to be wizards... What is assumed is that consumers are fairly *consistent* in their tastes and actions – that they do not flail around in unpredictable ways, making themselves miserable by persistent errors of judgment or arithmetic. If people act consistently, avoiding erratic changes in buying behavior, our scientific theory will provide a tolerable approximation to the facts.”

Samuelson & Nordhaus, *Economics*  
14<sup>th</sup> edit., 1992 (emphasis in original)

In fact, as we have just seen: Not flailing around unpredictably. Rather: systematic and predictable (and often inconsistent) behaviors & experiences inherent to people’s mental life!

Think of individual decision makers not as faulty rational agents, but as fundamentally different creatures...

To summarize:

Context has enormous impact on behavioral outcomes

Context of the poor is particularly tough

Having provided some (minimal?) financial education:

Let us explore the impact of interventions that attempt to facilitate the (behavioral / financial) context and outcomes of the poor...

Thank you!...