

What's Psychology Worth?

A Field Experiment in Consumer Credit

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Innovations for Poverty Action

and

Jameel Poverty Action Lab

Consumer Finances

- What drives consumer financing decisions?
- Lots of empirical literature on credit markets for the poor.
 - Focus is on price, liability structure, collateral, selection
 - Little on psychological dimensions of choice

- Suppose you received this letter:

the trusted way to borrow cash

25 September 2003

Shop 9B, Pinetown Arcade
Hill Street
Pinetown 3600
Tel: 031 717 8950

BUSINESS HOURS	
MON - FRI	08:30 - 16:30
SAT	08:00 - 12:00

A special rate for you.

Congratulations! As a valued client, you are now 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

You can use this cash to buy an appliance, or for anything else you want.

Enjoy low monthly repayments with this offer! For example:

	4 Months	6 Months	12 Months
R500	R149.95	R108.28	R66.62
R1000	R299.90	R216.57	R133.23
R2000	R599.80	R433.13	R266.47
R4000	R1199.60	R866.27	R532.93

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 R280.14 more in total on a R350.00, 4 month loan.

How to apply:

Bring your ID book and latest payslip to your usual branch, by **31 October 2003** and ask for **Mrs. Gloria Dlamini**.

Mrs. Gloria Dlamini
Customer Consultant

P.S. Unfortunately, if you have already taken a loan since the date this letter was issued, you do not qualify for this offer. Comparison based on a competitor's interest rate of 25%.



- What might drive whether you take a loan or not?

Economists View

- Behavior is the result of:
 - Far sighted cost-benefit impact calculations
 - What would I buy with the loan?
 - What benefits would that provide?
 - How would these interest payments affect me?
 - Easy implementation of resulting choice
 - “Go to the bank on Tuesday”
- Key variable on letter: Interest rate

Psychologists View

- Choice is the result of many “inconsequential” contextual details
 - My mood when receiving the letter
 - What feelings might the photo evoke?
 - Perceived complexity of the choice
 - Does the table ease or complicate my thinking?
 - The dimensions I evaluate on
 - Lottery => “Do I need a cell phone?”
- Follow through on choice not guaranteed
 - Do I forget or procrastinate in getting to the bank?

Empirical Skepticism of Psychology Evidence

- Magnitude of effects
- External validity of the laboratory
 - Motivation
 - Learning
 - Interfering contextual factors

Our Experiment

- Karlan-Zinman research in South Africa
 - “Observing Unobservables” paper and “Credit Elasticities in Less Developed Countries” paper
 - Lender conducted field experiment
 - Customers receive a letter offering them loans
 - Rates are randomized
 - Offer interest rate
 - Contract interest rate
 - Dynamic repayment incentive
 - Range large: 3.25% per month to 11.75% per month

Our Experiment

- Randomly alter psychological frame of offer
- Outcome: do people to take up the loan?
 - How much do interest rates matter?
 - How much do psychological “frames” matter?
- Simultaneous randomization means we can “price” psychology
 - Key difference between this and other psychological field studies
 - Benartzi-Thaler; Madrian-Shea; Ashraf-Karlan-Yin

Why is this important?

- Very important for understanding consumer decision making
- External Validity
 - Real choices
 - Setting allows for other forces to “interfere”
 - Large stakes
 - Median loan roughly 1/3 of monthly income
 - Customers familiar with choice
 - On average 5 loans per customer from this “Lender”

Consumer Credit in SA

- 4 types of lenders:
 - Commercial banks
 - Non-profits (small share of market)
 - **“Cash Loan” companies**
 - No collateral. Lend to the “working poor” based on paycheck & ID.
 - Offer high-interest, short-term credit with fixed repayment schedule.
 - Moneylenders (informal)

The Lender

- Provides short term, high-interest loans.
- Leading lender with 86 branches all over SA
- The “Lender” is a “cash loan” company.
- All clients are employed
 - 20th to 80th % of income distribution; most in 30-40%
 - 800,000 clients in database: 200,000 current; 400,000 rejected; 200,000 dormant (no current loan outstanding)

Typical loans

- Terms vary: 1,4,6,12 &18. 4 is the norm.
- Pre Experiment interest rate range:
 - 7.75% (12 month, low risk) to 11.75% (4 month, new) **per month**
 - Some competitors are up to 15%, or even 20% to 30% for the 1-month loans
- No restriction on use of proceeds
 - Used for education, household appliances, health shocks, etc.
- Median loan roughly $\frac{1}{3}$ of monthly income

Psychological Features

- Offer display features
- Comparison display features
- Social cues
 - Gender
 - Race
- Promotional lottery

Psychological Features (cont.)

- Time management:
 - Deadline
 - Short (~2 weeks), Med (~4 weeks) & long (~6 weeks)
 - Reminder phone calls
- Suggestion effects

the trusted way to borrow cash

30 October 2003

Shop 11 Checkers Centre
Corner of Waterkan & Lady Grey Street
Paarl 7646
Tel: 021 872 5224

BUSINESS HOURS	
MON - FRI	08:30 - 16:30
SAT	08:00 - 12:00

Ons praat
Afrikaans

A special rate for you.

Congratulations! As a valued client, you are now eligible for a special interest rate on your next cash loan from [redacted]. This is a limited time offer, so please come in by 30 November 2003 to take advantage of this offer.

You can use this cash to buy an appliance, or for anything else you want.

▶ Enjoy low monthly repayments with this offer! Here is one example of a loan you can get under this offer:

Loan Amount	Loan Term	Monthly Repayment
R1000.00	4 Months	R290.00

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Loans available in other amounts. There are no hidden costs. What you see is what you pay.

How to apply:

Bring your ID book and latest payslip to your usual branch, by **30 November 2003** and ask for **Mr. Godfrey Farao**.

Mr. Godfrey Farao
Customer Consultant

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



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Value of Simplicity

- Do we show the offer for one term or many terms?
- Do we show the offer for one loan size or many loan sizes?
 - If only one loan example, letter says “Loans available in other sizes and terms”
- Simplicity worth 2.3 points per month

Comparing the Offer

- No comparison
- Installment Savings
- Total Savings
- Percent saved on interest
- Percent saved on Monthly Payment
- 20% interest rate used as comparison benchmark
- Loss/gain:
 - "If you borrow from us, you will pay [calculation] less each month on a [amount], [term] month loan"
 - "If you borrow elsewhere, you will pay [calculation] more each month on a [amount], [term] month loan"

Comparing the Offer

- No impact of loss/gain asymmetry
- No differences between presentation type
- Note:
 - Maybe truly no effect
 - Possible interact with size of comparison?

Social Effects: Photos

- Photo in the corner as a subtle cue
 - Two dimensions of photo varied:
 - Race of person in photo
 - Gender of person in photo
 - Race and gender of photo match race and gender of employee name appearing at the bottom of the offer letter
- Social psychology literature:
 - Persuasive communication can be influenced by source of attractiveness and/or similarity

Social Effects: Photos

- No racial effects
- Males: Female photo = 4.5 percentage points per month
- Females: Female photo = 2.2 percentage points per month

Promotional Lottery

- Small announcement included on 25 percent of the offer letters:
 - “WIN--10 CELLPHONES UP FOR GRABS EACH MONTHS”
- Such promotions are common in RSA
 - Do not typically provide information on odds or value of goods
- Psychological literature:
 - Attention getting
 - Endowing an option with a feature meant to be positive but without value may reduce take-up
 - Should be especially true for high frequency borrowers

Promotional Lottery

- Lottery bad!
- 3.6 (frequent borrowers) to 1.3 (less frequent borrowers) percentage points per month

General Questions

- Are psychological effects nonlinear?
 - Not very much
- Do they interact with interest rate?
 - Yes. Compensate for worse deal.
- Do they vary by education/income?
 - No
- Do they create adverse selection?
 - Can raise profits without adverse selection
- Are these loans net new borrowing?
 - Maybe.

Strengths

- Explicit randomization
- Specific psychological manipulations
- Quantification of psychology
- External validity

Weaknesses:

- Do people read their mail?
 - For frequent borrowers, surely so
- Mechanisms not identifiable

Conclusion

- Psychological effects very large
- Predictable but only imperfectly
- Challenge for the future: Incorporation of such effects into standard models
 - Dramatically change the way we view many aspects of economics