Scarcity, Bandwidth, & Policy

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SCARCITY

A source of demand on cognitive capacity…
Cognitive Capacity is captured by scarcity automatically (a limited resource) we focus... (our mind has a life of its own...)
SCARCITY IS TOP OF MIND

WATER
JUICE
SODA
THIRST

CHAIR
FRIENDS
TREES
TALKING
AND SCARCITY IS DISTRACTING
Search times – *for neutral targets* – by condition and group
Similarly with money:
Focus on immediate prices, tradeoffs, ...
BUT less mind for elsewhere...

Taxi fare when you first get in?
(South Station)

Low SES  (p > .01)  High SES
Imagine that a friend goes to buy an appliance priced at $100($500/$1000). Although the store’s prices are good, the clerk informs your friend that a store 45 minutes away offers the same item on sale for $50 less. Would you advise your friend to travel to the other store to save $50 on the $100($500/$1000) expense?
Percent willing to travel 45 mins to save $50

- $100: 50% (HI (PrinctnNJT))
- $500: 40%
- $1,000: 5%
Percent willing to travel 45 mins to save $50

- $100: HI (PrinctnNJT) 60, LI (Soup Kitchen) 80
- $500: HI (PrinctnNJT) 70, LI (Soup Kitchen) 70
- $1,000: HI (PrinctnNJT) 50, LI (Soup Kitchen) 80
Willingness to travel to save $25…
(out of $800 / $100)
(South Station, Boston)
FINANCIAL CHALLENGES
(in a NJ mall…)

[Image of a crowded mall]
Measures cognitive control & executive function...

RAVEN’S PROGRESSIVE MATRICES

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

Mani, Mullainathan, Shafir, & Zhao, Science, 2013

RAVEN’S MATRICES

Rich	 Poor

Easy (cheap)

Hard (Expensive)
20 rounds
“Rich”: 50 sec / rnd (1000 sec total)
“Poor”: 15 sec / rnd (300 sec total)
No borrowing vs. High Interest Borrowing

Shah, Mullainathan, & Shafir, Science, 2012
Debt Traps

Smoothing consumption

POLICY MAKERS NEED TO CARE ABOUT BANDWIDTH

The logistics around benefits (e.g., SNAP)
The requirements of time, self-presentation, planning…
Training / Financial literacy (?)…
Peripheral vs central (under load)
Menacing forms!
POLICY MAKERS NEED TO CARE ABOUT BANDWIDTH

Bettinger, Long, Oreopoulos & Sanbonmatsu, 2009

FAFSA forms

Retirement Savings

(Bettinger, Long, Oreopoulos & Sanbonmatsu, 2009)
Aim to be more scarcity-proof...

Dodd-Frank, Consumer Protection, Qualified mortgages,…
Fail-proof courses…
Regular pay periods; work shifts; child-care, transportation…
Because one bandwidth for all…
Thank you!
What’s Advertising Content Worth? Evidence from a Consumer Credit Marketing Field Experiment (Bertrand, Karlan, Mullainathan, Shafir, Zinman; Quarterly Journal of Economics, 2010)

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
80 patrons
mean age = 42.9 (s.d.=12)
mean annual income ~ $8,000

Cognitive control task:
press the same side as the heart
press the opposite side as the flower

Raven's Progressive Matrices
Results

Note: *p < .05  **p < .01
Affirmation in the context of welfare benefits programs (EITC and local VITA sites) …

Condition:

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<tr>
<th>Neutral</th>
<th>Affirmation</th>
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<tr>
<td>44%</td>
<td>58%</td>
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<tr>
<td>p=.03</td>
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Stopped to consider:

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<th>Affirmation</th>
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<td>36%</td>
<td>79%</td>
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Of those, took the information:

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<td>16%</td>
<td>46%</td>
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(Total take up:)

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<tr>
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