“Keep Your Government Hands Off My Medicare”
Reflections on the Impact of Behavioral Economics on Health Care and Health Policy

CHSOR Seminar
September 24, 2019
Douglas E. Hough, Ph.D.
Mainstream Economics vs. Behavioral Economics

- Mainstream
- Behavioral Economics
Mainstream Economics vs. Behavioral Economics

- **Mainstream**
  - All participants are rational
  - All participants know their preferences
  - All participants have full information
  - Preferences are path-independent
  - Deviations from rational choice are random

- **Behavioral Economics**
  - Participants are not always rational
  - Participants learn their preferences through experience
  - Asymmetric information abounds
  - Preferences are path-dependent
  - Deviations from rational choice can be systematic
A Caveat

“Think how hard physics would be if particles could think.”

– Murray Gell-Mann
Robust Concepts in Behavioral Economics

- Loss Aversion
- Endowment Effect
- Framing
- Paradox of Choice
- Hyperbolic Discounting
- System 1 vs. System 2 thinking
Loss Aversion

Figure 2.1: The Simple Analytics of Behavioral Economics

Value Function

Weighting Function

Objective probability
Subjective probability

Value

Losses

Gains

\( \pi(p) \)

Probability(\(p\))
Robust Concepts in Behavioral Economics

- Loss Aversion
- Endowment Effect
- Framing
- Power of the Default/Opt-In vs. Opt-Out
The Power of Defaults

The Power of Defaults

Robust Concepts in Behavioral Economics

- Loss Aversion
- Endowment Effect
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- Power of the Default/Opt-In vs. Opt-Out
- Paradox of Choice
- Hyperbolic Discounting
- System 1 vs. System 2 thinking
System 1
- Automatic
- Effortless
- Associative
- Rapid, parallel
- Process opaque
- Skilled action

System 2
- Controlled
- Effortful
- Deductive
- Slow, serial
- Self-aware
- Rule application

SO WHAT?????
EBOLA!!!

OBESITY: 300,000 DEATHS PER YEAR

TOBACCO: 450,000 DEATHS PER YEAR

ALCOHOL: 88,000 DEATHS PER YEAR
Policy Levers in Behavioral Economics

- Education/persuasion
- Guidelines/checklists
- Penalties/rewards
- Commitment devices
- Defaults
- Mandates
- Coercion/compulsion

Nudge Units

UK: Behavioural Insights Team

US: Social and Behavioral Science Team
Why do people accept defaults?

- Transactions costs
- Implicit recommendation/endorsement
- Social norms
- Inertia/endowment effect
- Ill-formed preferences
When nudges work

- When people lack clear, stable, well-ordered preferences
- When people have little willpower
- When the decision is infrequent
- When the decision is difficult
- When people have hyperbolic discounting
The nature of nudges

Libertarian paternalism???????
Choice architecture

- “Intelligent assignment?”
- Greatest good for greatest number?
- Minimize number of opt-outs?
- Minimize risks/costs?
- Predict each individual’s choices?
Objections to nudges

- Nudges can become shoves
- Lack of transparency
- Deceptive manipulation of decision paths
- Nudges can become sludges
An alternative to nudges: Forced choices
Lessons from Behavioral Economics for Interventions/Policy

- Make a compelling case for behavior change
- Segregate gains, integrate losses
  - “Fly now, pay later”
  - Reduce “the pain of paying”
- Make behavior change easier
  - Emphasize System 1, rather than System 2
  - Use defaults
- Offer some – but not a lot of – choices
- Money works – but only for a short time
- Have people make one decision/take one action, not many
Challenges with Policy Levers

- Financial vs. nonfinancial
  - Economic vs. social norms
- Short-term vs. long-term impact
- Intrinsic vs. extrinsic motivation
  - Crowding out vs. complementarity
- Effectiveness across SES groups and cultures
Conclusion

Behavioral economics is *not* a magic bullet.
Behavioral economics *can* help in understanding & influencing behavior.
The Endowment Effect

<table>
<thead>
<tr>
<th>Class</th>
<th>Initial</th>
<th>End</th>
<th>% w/mug</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td><img src="image1.png" alt="Image" /></td>
<td><img src="image2.png" alt="Image" /></td>
<td>or</td>
</tr>
<tr>
<td>2</td>
<td><img src="image3.png" alt="Image" /></td>
<td><img src="image4.png" alt="Image" /></td>
<td>or</td>
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<tr>
<td>3</td>
<td><img src="image5.png" alt="Image" /></td>
<td><img src="image6.png" alt="Image" /></td>
<td>or</td>
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## The Endowment Effect

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<tbody>
<tr>
<td>1</td>
<td><img src="image" alt="Mug" /></td>
<td><img src="image" alt="Chocolate" /></td>
<td>or</td>
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<tr>
<td>2</td>
<td><img src="image" alt="Chocolate" /></td>
<td><img src="image" alt="Mug" /></td>
<td>or</td>
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<tr>
<td>3</td>
<td><img src="image" alt="Mug" /></td>
<td><img src="image" alt="Chocolate" /></td>
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<td></td>
<td></td>
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<td>56%</td>
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<tbody>
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<td><img src="image0" alt="Mug" /></td>
<td><img src="image1" alt="Chocolates" /> or<img src="image2" alt="Mug" /></td>
<td>89%</td>
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<tr>
<td>2</td>
<td><img src="image3" alt="Chocolates" /></td>
<td><img src="image4" alt="Mug" /> or <img src="image5" alt="Chocolates" /></td>
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<tr>
<td>3</td>
<td><img src="image6" alt="Mug" /> or <img src="image7" alt="Chocolates" /></td>
<td><img src="image8" alt="Mug" /></td>
<td>56%</td>
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<td>2</td>
<td><img src="image3.png" alt="Chocolate" /></td>
<td><img src="image1.png" alt="Mug" /> or <img src="image2.png" alt="Chocolate" /></td>
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<tr>
<td>3</td>
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The Paradox of Choice
The Paradox of Choice

• 40% stopped
• Tried 2 jams
• 30% bought jam

The Paradox of Choice

• 40% stopped
• Tried 2 jams
• 30% bought jam

• 60% stopped
The Paradox of Choice

- 40% stopped
- Tried 2 jams
- 30% bought jam

- 60% stopped
- Tried 2 jams

The Paradox of Choice

- 40% stopped
- Tried 2 jams
- 30% bought jam

- 60% stopped
- Tried 2 jams
- 3% bought jam

Hyperbolic Discounting

Figure 3.1: Discount Functions

- Exponential
- Hyperbolic
Lessons from Behavioral Economics for DTC

- Make a compelling case for behavior change
- Segregate gains, integrate losses
  - “Fly now, pay later”
  - Reduce “the pain of paying”
- Make behavior change easier
  - Let them use System 1, rather than System 2
  - Use defaults
- Offer some – but not a lot of – choices
- Money works – but only for a short time
- Have them make one decision/take one action, not lots
Motor Vehicle Deaths and DTC
Motor Vehicle Deaths and DTC

Motor vehicle deaths in US

Motor vehicle deaths

Motor Vehicle Deaths and DTC

![Graph showing the decline in motor vehicle deaths per 100 million VMT and per 100,000 population over time from 1960 to 2015. The graph indicates a significant reduction in both measures over the years.]
Why Did This Happen?