What can we learn about prevention incentives from behavioural economics?

Fiscal Incentives Symposium
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What influences health and safety decisions of employers and workers?

What can we learn from fields outside of health and safety to

• Propose research questions
• Test intervention strategies
Choices driven by rational calculation of costs and benefits

“Economics traditionally conceptualizes a world populated by calculating, unemotional maximizers”

(Thaler and Mullainathan)
Decision Making/Motivation Theory: Traditional Economics:

Choices driven by rational calculation.

"Economics traditionally conceptualizes a world populated by calculating, unemotional maximizers." (Thaler and Mullainathan)
Behavioural Economics

The combination of psychology and economics that investigates what happens in markets in which some of the agents display human limitations and complications.

(Thaler and Mullainathan)
Popularizers of Behavioral Economics and Decision Influencers
Research findings on motivation and decision-making ("human limitations and complications")

1. Framing
   – Gain or Loss
   – Now or Later

2. Relationships
   – Moral/social motivators
   – Recognition
   – Shaming

3. Commitment and Ownership

What can we learn from these findings about influencing health and safety?
1. Framing
Imagine that in addition to everything you own, you have been given $1000*

You are now given a choice:

a) Get $500 more for sure

b) Flip a coin:

• Heads you win $1000 more
• Tails you win nothing more

*adapted from Daniel Kahneman, *Thinking Fast and Slow*
Imagine that in addition to everything you own, you have been given $2000. You are now given a choice:

a) Lose $500 for sure

b) Flip a coin:
   • Heads you keep all of your $2000
   • Tails you lose $1000
In both sets of choices

- You can end up with $1500 for sure OR
- You can flip a coin and stand to end up with $2000 (heads) or $1000 (tails)
Framing and Loss Aversion

The psychological principles that govern the perception of decision problems and the evaluation of probabilities and outcomes produce predictable shifts of preference when the same problem is framed in different ways.


http://psych.hanover.edu/classes/cognition/papers/tversky81.pdf
Framing and Loss Aversion

- Reframing the same option as a loss changes the choices.
- The pain of losing something is 2x the pleasure of gaining it.
Now or Later?
Would you rather I gave you

a. $200 now or
b. $300 tomorrow?

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a. $200 now or
b. $300 in six months?
Present-bias preference: people tend to underweight delayed outcomes
Putting present-bias present to work for you

Thaler and Sunstein – Getting commitment to a positive action in the future
Counteracting Delayed Outcomes: Immediate Feedback

UK has signs that give you a smiley or frowning face depending on whether you’re speeding.
2. Relationships and Social/Moral Incentives
Recent writers about errors in common thinking about incentives

- Barry Schwartz, *Practical Wisdom*
- Daniel Pink, *Drive*

**People are motivated by**
  - (Daniel Pink):
    - Mastery
    - Purpose
    - Autonomy
  - Recognition
  - Morals and values
Incentives: The Daycare Study*

- Daycare problem: parents picking up their kids late.
- To try to correct this problem, the centers imposed a fine for late pick-ups.
- Result?
  - The rate of late pick-ups tripled!
  - When the fines were discontinued, the rate of late pick-ups stayed high.
- Why?
  - Converted a moral motivator to an economic motivator

*The description of this study was popularized in Freakonomics and cited hundreds of times since then. Some have questioned the conclusions, claiming that the monetary incentive would have worked if it were higher.
Cialdini: Signs in hotel rooms asking guests to reuse towels

Which do you think is most effective?

a) Help Save the Environment

b) Join Your Fellow Citizens In Helping To Save The Environment

c) Help Save Resources For Future Generations
Social Proof

Influence
Science and Practice

ROBERT B. CIANCIA

34% off

IF everything were on the line in a negotiation, I can’t think of anyone I’d rather have advising me than Bob Cialdini.

—TOM PETERS, The Tom Peters Group
Social Norms Marketing

“Would you know if your teen did not come home on time?”

A Message from the Montana Department of Public Health

http://www.mostofus.org
Recognition
Shame 'boosts hand-washing rate'

The message "Is the person next to you washing with soap?" boosted rates of hand-washing with soap by 11% in women and 12% in men. The researchers suggested people were most sensitive to the idea that others were watching their behavior: "What other people think - what is deemed to be acceptable behavior - is probably a key determinant in shaping behavior.

Daniel Kahneman:
People paid more on an honor system when pictures of eyes were posted.

Doctors aren’t washing their hands
By Scott Dobson-Mitchell | January 26th, 2011 | 4:06 pm

New computer system detects unwashed hands

If a doctor, nurse, or technician forgets to wash up before entering the room, the badge will turn red and results will be instantly sent to nurses’ stations and multiple computers.
3. Commitment and Ownership

Endowment Effect
IKEA Effect
Foot in the Door
The Endowment Effect

Valuing the same thing more when you own it than when you don’t
The IKEA Effect

Scott Belsky
http://the99percent.com/tips/5874/strive-for-the-ikea-effect
People place greater value on things they build themselves

The “IKEA Effect”: When Labor Leads to Love
Michael I. Norton, Daniel Mochon, Dan Ariely
Endowment and IKEA effects: People are more likely to follow programs that they have developed themselves

Dr. Michael Gardam, Director of Infection Prevention and Control at UHN in Toronto has achieved world-wide attention for promotion of hand washing.

“If you really want to bring about lasting, sustained change, people have to come up with the ideas themselves and they have to implement the ideas themselves,” he said. “There are all sorts of things we can start doing with this. Our job is to show them all the stuff they can do, and then allow them to go wild.”
Foot in the Door Technique

Getting agreement to something big by first getting agreement to something small.

people want to be consistent, so become invested in their initial action.
The Seoul Declaration on Safety and Health at Work was adopted on 29 June 2008 by some 50 high-level decision-makers from around the world as a major new blueprint for constructing a global culture of safety and health at work.

Download the Seoul Declaration

Support the Seoul Declaration
Are these findings applicable to health and safety?

Some research ...

• Zohar: immediate feedback to counteract delayed and rare outcomes
• HSE UK has tested framing (positive vs negative messaging) in promotional material
• Foot-in-the-door research
• Research on effective OHS strategies points to effects of reciprocity, relationships
Can behavioural economics point us to questions for research and testable strategies on incentives?

- Loss Aversion: are penalties more effective than rewards?
- Does framing affect choices?
- Do financial incentives backfire by subverting moral/social motivators?
- Incentives based on recognition/shaming?
- How can we use present-bias preference?
  - Convert delayed outcomes to immediate outcomes?
  - Get commitment to future action?
Relevance to Financial Incentives?

• Program design – e.g. rewards or penalties – for what?
• Add-ons – e.g. positive or negative recognition
• Cost-effectiveness – are non-financial incentives more effective?
Questions?

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