Getting to Yes!:

Behavioural Economics for Improving Health Care Quality

April 18 2018

Duncan Campbell

Principal Consultant, Craigavon Enterprises Ltd.

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Agenda

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Question 1: Check-In

Question: Have you heard of behavioral economics before?

A. Yes, and have used it
B. Yes, but only know the name
C. No, and I am so curious to learn more

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The *No Brainer Ceiling* Lift Case

My Journey to the Dark Side

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The *No Brainer* Ceiling Lift Case

- High Muscular Skeletal rates in Long Term Care
  - Over 10% of staff injured
  - High short and long-term disability claims
  - $6m increase In premiums
  - $200k for every long –term disability claim
- Business case developed to install ceiling lifts at a one time cost of $5m and $1m annual cost for maintenance and education
- Estimated savings = $10m pa
- Payback = 6 months
- Great business case – right?

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Question 2:Check-In

Question: Would you fund the business case for ceiling lifts

A. Yes, it's a no brainer
B. No, I back the status quo
C. Maybe….tell me more

Key Behavioural Economic Principles

What is Behavioural Economics?

- Rejects the standard economic assumption that humans are fully rational, completely selfish, forward-thinking decision makers
- BE has two Nobel Economics prize winners:
  - Daniel Kahneman 2002
  - Richard Thaler -2017

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Key Questions

- Have you ever wondered why your rationally sound project proposal failed to get traction with decision makers?
- Have you ever wondered why IT and other large scale change initiatives have such a high rate of failure?

- Can BE be used to improve business case sign-off and delivery success

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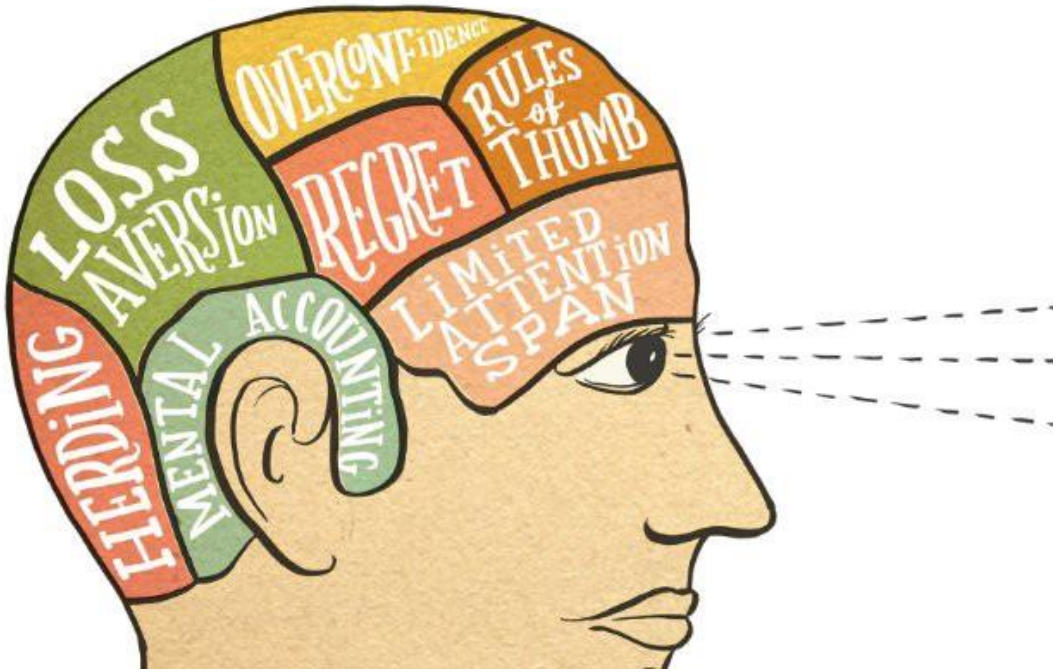
The Brain is a Funny Thing



- **Cognitive overload**
- **Black boxes**
- **The power of inertia**

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MINDSPACE	
Messenger	We are heavily influenced by who communicates information
Incentives	Our responses to incentives are shaped by predictable mental shortcuts such as strongly avoid losses
Norms	We are strongly influenced by what others do
Defaults	We 'go with the flow' of pre-set options
Salience	Our attention is drawn to what is novel and seems relevant to us
Priming	Our acts are often influenced by sub-conscious cues
Affect	Our emotional associations can powerfully shape our actions
Commitment	We seek to be consistent with our public promises, and reciprocate acts
Ego	We act in ways to make us feel better about ourselves

Key Concepts

1. Present Bias
2. Reward Incentives
3. Information and Salience
4. Context and Framing
5. Social Forces
6. Nudging
7. Libertarian (or Asymmetric) Paternalism

The *No Brainer* Ceiling Lift Case

- What happened
  - Initial uptake excellent due to education and tracking investment
    - Reduced disability costs and premiums
  - Over time refocus on other HA initiatives – sustainability an issue
  - Benefits slipped and MSK rates deteriorated again
- Why were we not successful
  - Technical solution – needed to consider behavioral change
    - Did not redesign workflow
    - It was easier to do it the old way
  - Wards are busy places, and strong cognitive overload
  - Needed human factors to make lifts easier to use

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Question 3:Check-In

Question: What Behavioural Economics concepts should we have included

A. Present Bias
B. Choice Architecture
C. Visible tracking and comparing
D. All of the above

BC Health Quality Matrix

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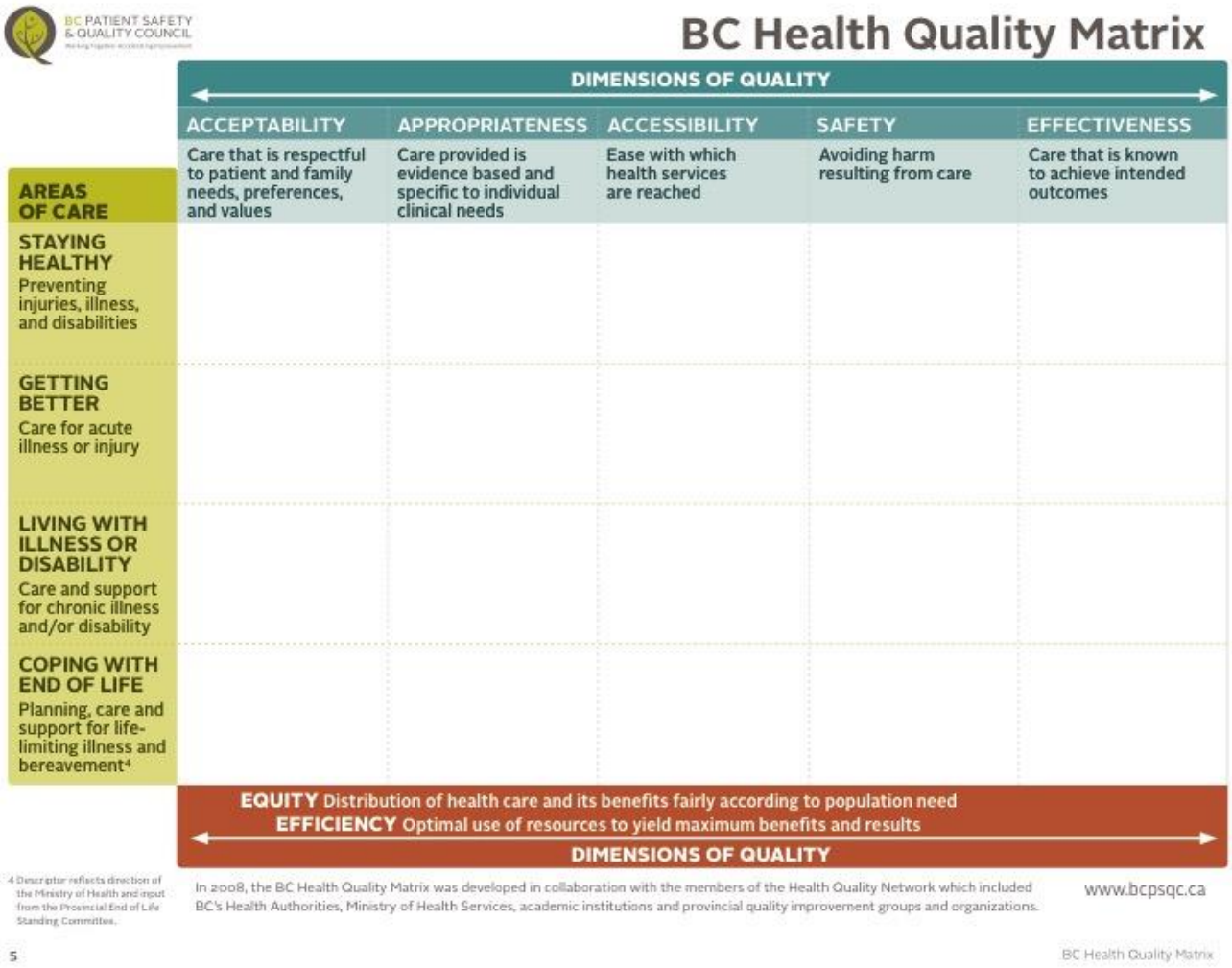
BC Health Quality Matrix



Staying Healthy Examples

Physical Activity

- It was estimated in the UK that if people with low levels of activity were more active, more than 900 million pounds a year could be saved
- Individuals tend to exhibit **present bias** when it comes to physical activity since they know they health benefits
- Making participating in activities enjoyable increases physical activity levels
  - Example: Piano stairs in Stockholm → 66% more people took the stairs (https://youtu.be/2lXh2n0aPyw)

Increasing Doctor Appointment Attendance

- Missed appointments interfere with appropriate care and to misspend medical and administrative resources
- An effective intervention design:
  1. Phone call reminder
  2. If call not answer → Text reminder
  3. If no available mobile phone number → a postal reminder
- Can also send calendar invites and reminders (1 day, 2 hours) to individual's email with an 'add to calendar' option when pre-booking appointments

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Organ and Tissue Donation

- A kidney transplant can save approximately $250,000 per patients over a 5-year period compared to dialysis while improving the quality of life
- Organ donation can be integrated into renewing a drivers license or passport or even filling out tax returns
- Could automatically opt in individuals when renewing drivers license, so would need to opt out if did not want to participate (**default)**
- A more radical idea is to give organ priority to those who are organ donators

Coping with End of Life

Refit Houses with Safety Mechanisms

- **Aging in place**: “the ability to live in one’s own home and community safely, independently, and comfortably, regardless of age, income, or ability level” (CDC)
- Why do we make it so hard to receive services
- Refit housing should be the default mechanism

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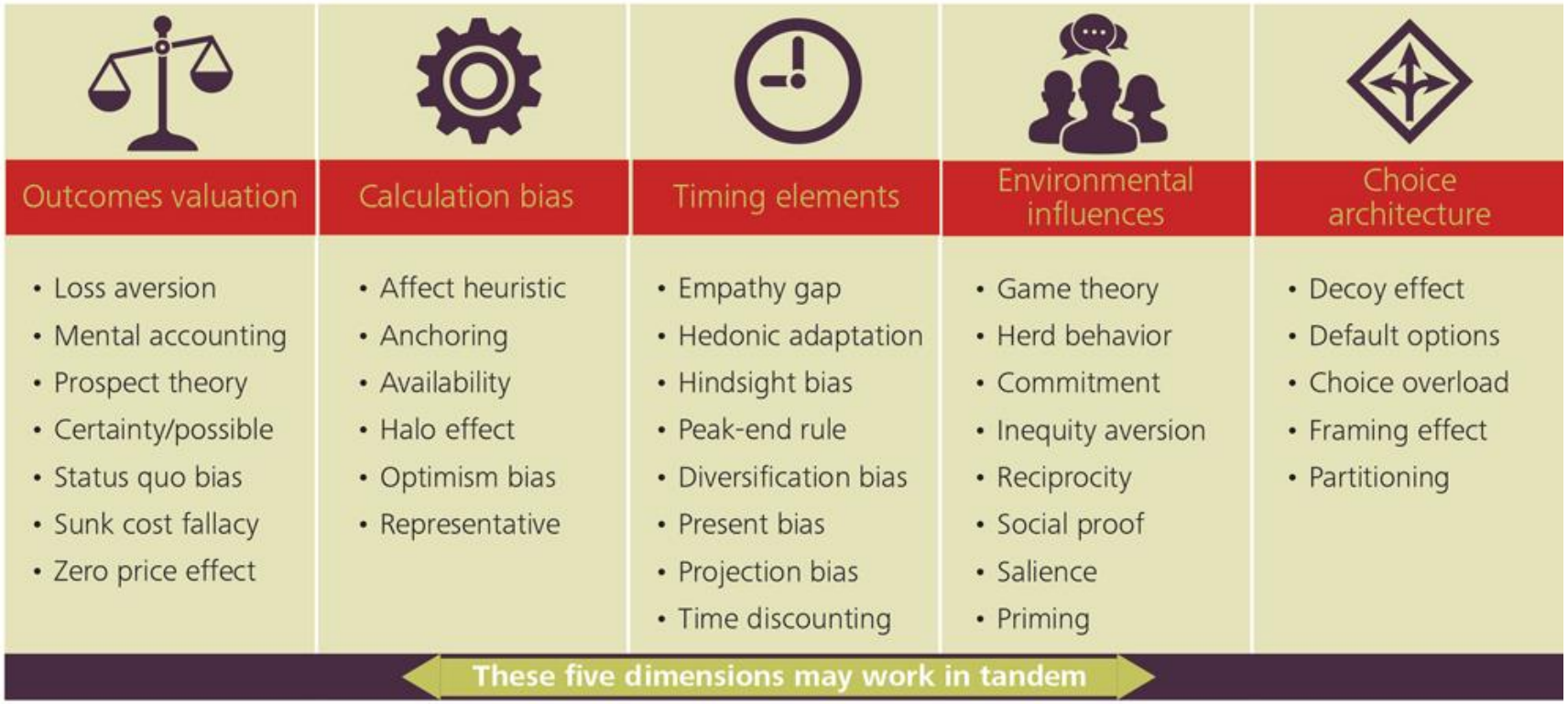
End of Life Default Interventions

- Involves making personal and difficult decisions about your care plan, which is often influenced by how the options were presented
- BE researched has shown that the default type of advance directive (*comfort-oriented care* vs. *life-extending care)* was the most popular choice
- One study found that 77% of patients chose “comfort care” when default → only 43% chose this option when “life extension” was the default
- The pre-set option must be sensitive to cultural traditions and beliefs regarding death

Conclusion and Close

Summary of Key Behavioral Economics Concepts

Figure 2. Organized summary for a selection of the most popular behavioral economics concepts



Graphic: Deloitte University Press | DUPress.com

https://www2.deloitte.com/insights/us/en/focus/behavioral-economics/strategy-choice-overload-framework.html#endnote-sup-20

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Key Take Away's

- Rational business cases alone are insufficient
  - People are not rational
  - Need to consider behavioural change
  - Use the Quality Matrix as a start for new business cases
- Business cases need reality check
  - Normally over optimistic
  - Need to invest in behavioural change
- Commitment letters work
- Visible peer revue
- Transparency is key

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What to read/ follow

- Cass Sunstein – The cost benefit revolution
- Cass Sustein & Richarf Thaler –Nudge
- Richard Thayler – The art of Misbehaving
- Cass Sunstein -The ethics of influence
- Richard Thaler – Nobel Prize winner
- Behavioral Design Teams – The next frontier I clinical delivery innovation- Ted Robertson – ideas42.org
- Daniel Kahneman – Thinking Fast and slow

Duncan Campbell

Principal


Phone: 1(604)-828-0125


Email: djcampb@icloud.com


Website: craigavonenterprises.com


Twitter: @CraigavonEnt

Back up slides

Present Bias

- Individuals often overweight costs and benefits incurred today relative to the costs and benefits incurred tomorrow
- Can lead to individuals to forgo healthy behaviours in the present
- Examples: indulging in unhealthy snacks, skipping a workout

Reward Incentives

- Types:
  - **Standard reward incentives**: those who were paid to go to the gym are more likely to go and continued to do so at a higher rate after incentives were removed
  - **Regret lotteries:** leverages overweighting of small probabilities through the lottery ie. All individuals are entered into the lottery and informed about whether their name is picked. If an individual fails to take the required action (going to the gym) they fail to earn the prize when picked

Reward Incentives

- Types:
  - **Loss aversion:** framing the earnings as money that is lost (not gained) → more effective
  - **Commitment contracts:** individuals sign a contract where money is forfeited if they fail to achieve a certain goal → leverages loss aversion
- Monetary incentives can create short-term effects
- Individuals can respond in perverse ways to reward incentives

Information and Salience

- Standard economic theory says that individuals take in all information and have no limitations to solve complex problems
- However, bounded in rationality, individuals may have limited memory, fail to pay attention, and may not collect all information available
- **Limited memory** to store information can explain poor medication adherence → use electronic reminders

Context and Framing

- **Default Options:** Individuals demonstrate a strong tendency to exhibit inertia around default options
  - People are less likely to switch from a default plan due to high cost (time, money, effort)
- **Visual Cues:** influences individuals decision making
  - Ie. People consume more food when given larger serving bowls or the location of candy in a store will impact the likelihood of purchase

Social Forces

- **Responding to Actions of Others:** Individuals informed about the actions of other will tend to conform to other's behaviour
  - Examples: charitable giving, environmental protection
- **When Others are Watching:** Take actions that make them look more generous when believed they are being watched
- **Requests from Others:** More likely to take an action when asked to do so by someone else
  - Mentors play a large role in disease management

Nudging

- **Nudge:** the design of choice that alters people's behavior in a predictable way without forbidding anything or actually changing the choice at all
- Excludes legislation and regulation
- Nudges are helpful when:
  - Feedback is not immediate
  - Individuals outweigh the present benefit, and see the costs later
  - It is hard to imagine the possible outcomes

Libertarian Paternalism

- Attempting to help individuals achieve their own goals, while not harming those who already are making informed decisions
- Examples include:
  - Making the default drink water instead of soda, so they would have to request soda
  - Placing healthy food in more convenient locations in cafeteria
- The key is to make healthy behaviors more convenient and less immediately costly