TOWARD BETTER DECISIONS: Behavioral Economics and Palliative Care

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“We don’t see things as they are, we see them as we are.”
– Anaïs Nin

How many of you consider yourselves to be rational people?
Linda is thirty-one years old, single, outspoken and very bright. She majored in philosophy. As a student she was deeply concerned with issues of discrimination and social justice, and also participated in anti-war demonstrations.

Which alternative is more probable?
1-Linda is a bank teller
2-Linda is a bank teller and is active in the feminist movement

The point: Assume irrationality!

Can we rationalize irrationality......

In our patients and families?
Roots of BE:

- Economics: Allocation of scarce resources among various and competing ends—not just $$$$!
- Classical micro-economics → psychology
- Neo-classical Economics → “hard science”
  - EXPECTED UTILITY THEORY
- 1960s: Behavioral economics is born
  - Cognitive models began demonstrating that the risk and uncertainty of most decisions leads to systematic error

Amos Tversky and Daniel Kahneman in repose

Daniel Kahneman—“Behavioral economists now believe that people are not necessarily always rational and if people are not rational, they do not always choose what is best for them”

Old think: Utility theory

- The idea: Humans make rational choices that maximize their utility (satisfaction) subject to some constraints
- Utility in health and well being?
- Problems—
  - Risk assessment
  - Uncertainty
  - Limits on cognitive capacity
  - Limits on time
Key principles of behavioral economics: Human nature

- Emotion and affect=anecdotes and stories vs statistics
- “Rules of thumb”
- Optimistic in general
- Inertia of action=defaults
- Reference points

Key principles (continued):

- Loss averse
- Influenced by framing
- Respond to social pressure
- Value present over the future

Does BE matter?

- Utility of this knowledge for decision support in palliative care
  - Understanding why people decide what they decide
  - Preferences and decisions “constructed on the spot” subject to many biases and the way in which info is presented
  - Helping patients and families balance emotion with reason in difficult decision making
  - Languaging to support effective decision processes
  - Designing policy in advance care planning choices
- Is there an ethical dilemma here?
How do human beings think?

• System 1
  – “Fast”
  – The need to simplify: *biases and heuristics*  
    *(rules of thumb)*

• System 2
  – “Slow”
  – Logical/analytical (more or less)

17 X 24 =
System 1:

- Generates impressions, feelings and inclinations which can become beliefs, attitudes and intentions
- Operates automatically and quickly without voluntary control
- Is biased to believe and confirm
- Neglects ambiguity and suppresses doubt
- A perfect instrument for “jumping to conclusions”

System 1 lets us:

- Detect that one object is more distant than another
- Detect hostility in a voice
- Answer to 2+2=
- Drive a car on an empty road

System 2:

- Allocates attention to the effortful mental activities that demand it
- Logical, rational, computational-more skeptical
- More cognitive “strain”
- Voluntary control
- Has beliefs, makes choices, decides what to do
- Can control System 1
System 2 allows us to:

- Focus attention specifically on the clowns in a circus
- Monitor the appropriateness of your behavior in a social situation
- Check the validity of a complex logical argument
- Compare two washing machines for overall value

Can we help our folks use both systems to make the best decisions?

- Can WE use both systems to support the best decisions?

- A rhetorical question:

  * Does MINDFULNESS tie these 2 together most productively?

Example: “Code status” discussion 2 ways

- Common
  - “If your heart or breathing stops, do you want us to bring you back?”

- Invoking System 2
  - Slowing it down!
SOME KEY INSIGHTS FROM
BEHAVIORAL ECONOMICS

Heuristics and biases: some examples from the world of medical decision making

Representativeness: the weakness of small samples

• The idea: One occurrence of a problem cannot be reliably generalized to others
  Example: Aunt Polly did X when she had cancer. Therefore my Mom should do the same

• Possible response: Gentle reminder that “everyone is different”
Present bias:

- The idea: People favor the present state of affairs over considering the future
  
  Example—People who avoid making any advance care plans in the face of advanced and progressive illness

- Possible response—Acknowledge how hard it is to think about these possibilities, but how much they have to lose (loss frame) if they don’t, such as comfort and quality of life

Confirmation bias:

- The idea: Anchoring judgment rigidly in prior (perhaps less threatening) beliefs and searching for data to support that

  Example—Patient in critical care with MOSF, clearly declining. Creatinine goes from 4.8 to 4.6. Nephrologist says “her kidneys are doing great”.

- Possible response: Acknowledge “mixed message” and even welcome it—but put it in the perspective of the whole person

Optimism Bias
A few others (there are many more!):

- Anchoring effect
- Salience bias
- Normative bias
- Isolation effect
- Affect heuristic

Additional Objectives and Outline

- Becoming More Aware of Our Biases
- The Value Function
- Recognize Absolute vs. Proportional Loss
- Moving Patients from S1 to S2
- Framing Decisions Ethically
- The Ethics of Using the “Nudge”
- The Power of the Default
- Economic Implications

Implementation of A.D.s

- Shaping EOL Care: Behavioral Economics and Advance Directives (AD)
  – Scott Halpern, M.D., Ph.D., M.B.E.

- A central but unmet challenge in healthcare delivery is to increase the probability that the care patients receive near the EOL is consistent with their goals, values, and preferences.

- Critical health decisions must be made for 43% for older Americans near EOL but 70% of those patients can not make these decisions
The value function:

- Prospect Theory is the predominant framework for understanding decisions made in situations where the outcomes of each choice are uncertain.
  - Nonlinearity of the value function
    - is the feature of greatest relevance for choices between life prolonging treatment and death
  - Framing effects
  - Risk seeking
  - Loss aversion

- An appreciation for these behavioral and psychological issues might improve the quality of debates concerning the rising costs of cancer care.
Value function: Proportional vs absolute difference

Present research posits the individual's current health status. Operationalized in terms of ADLs, as the reference point.

Sicker people might choose to live longer in the worse prospective health statuses, and therefore, more strongly prefer life-prolonging treatments, compared with healthier individuals.

Value of High-Cost Cancer Care: A Behavioral Science Perspective Kevin P. Weinfurt
Cancer Care Perspectives in Behavioral Economics

- Patients Consider Different Outcomes When Making Decisions About Care
- Patients Value the Outcomes Resulting From Care Relative to a Reference Point
- People Care More About Differences in Outcomes Close to Their Reference Point
- People Care More About Losses Than Gains
- Not Everyone’s Reference Point is the Same

Framing: What is it and how does it work?

- Framing Gains versus Framing Losses
  - Benefits of being with loved ones at home with hospice at EOL
  - Avoiding the burdens of chemotherapy at EOL

- Decisions along the cancer continuum — prevention, screening, diagnosis, treatment, survivorship, and end of life (EOL), is a useful heuristic

- Cancer patients at EOL face some of the most complex and difficult decisions of all
Can framing be used to support decision making?

**YES !!!**

- Explain how it might be used
- Ethical implications: is this coercion?
- Framing “no code” status as “allow natural death” rather than “DNR”

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**REMAP: A Framework for Goals of Care Conversations**

**Steps to Employ**

1. Role Changes
2. Numerous Factors Influencing Decisions
   - A. Physical Symptoms
   - B. Depression
   - C. Functional Status
   - D. Anxiety
   - E. Existential Concerns
   - F. Financial Concerns
   - G. Loss of Control
   - H. Trust
   - I. Family/Caregiver Strain
3. Understand cognitive & psychological processes influencing decisions
4. Pt/Family preferences for acceptable outcomes
5. Physician to examine & understand their emotions
The evolution of medical decision making:

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Risk and Uncertainty

- For cancer patients, they must first recognize that they are entering EOL
- Emotionally challenging prognosis are often confounded by uncertainty – and then patients are faced with decisions on whether to pursue palliative rather than curative or life sustaining goals
- Though ethically justified, it is psychologically daunting for patients to imagine unfamiliar and dreadful health states and then to formulate values and preferences for these outcomes

Ethical considerations of use of behavioral economics:

- Knowledge is power
- Assymetrical knowledge can be used to manipulate
The Ethics of the “Nudge”

- A hallmark of the clinical nudge is that they influence decisions without restricting choice.
- Because no options are removed, nudges are less threatening to autonomy than many standards in healthcare that clinicians routinely accept.
- Some argue that the nudge in healthcare are ethically justified so long as they are set to promote the known or reasonably assumed best interests of those affected by the nudge.

Ethics and Behavioral Economics

- The aim of shared decision making is to provide information to patients in order to enable them to decide autonomously and freely about treatment together with their doctor, without interference, force, or coercion by others.
- Relatives can be considered as co-constituents of the patient’s identity, and not necessarily third party to the doctor.

Let’s wrap it up!
Decision psychology: Key take home points for HPM providers

• Be aware of biases that may affect perceptions and decision making eg representativeness, action, optimism, present bias, anchoring

• Recognize absolute vs proportional loss and consider explicitly acknowledging it to patients and families

Take home points:

• Frame decisions in terms of both gain frame and loss frame
  – Explicitly acknowledge that losses may feel more significant than gains, but they may not be, e.g. gain in QOL may ultimately be more important than loss of time alive ...(if that is actually the choice)
  – Ethical considerations
  – Implicit honoring of the Hippocratic Oath

• Move S1 thinking to S2 if possible by imparting insight to decision makers
  – S2 thinking is hard work (high “cognitive load”)—empathize with it
  – Pace; tempo; time limited trials; team support

And....the human angle:

• Understanding seemingly irrational decisions → empathy
• Empathy → compassion
• Compassion and engagement → resiliency

• BE: A resiliency strategy?

Thanks for your attention!
Selected References:

- Kahneman, D. *Thinking, Fast and Slow*
- Lewis, M. *The Undoing Project*
- Baddelay, M. *Behavioural Economics, A Very Short Introduction*

Selected References: