Behavioral Economics, Past, Present and Future by Richard Thaler [AER 2016]

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February 06, 2018

What is the contribution of behavioral economics?

- **On theory side:** Two different goals in economics literature:
    1. to characterize optimal behavior
    2. to predict actual behavior.
- **On empirical work:**
    - by incorporating insights from other social science disciplines, better understand economic behavior,
    - Contrary to the predictions of traditional theory, SIFs matter.
    - in fact, in some situations the single most important determinant of behavior is a SIF.
- **Future of BE:** predicts that BE will eventually disappear.

Behavioral Economics

- The phrase "behavioral economics" appears to be a pleonasm. What "non-behavioral" economics can we contrast with it? The answer to this question is found in the specific assumptions about human behavior that are made in neoclassical economic theory. – Herbert Simon

- The core assumption of classical economics is that agents choose by optimizing. Is that accurate?

Defining Assumption of Economics

- ▶ Optimization
- ▶ Self interest
- ▶ Consumer sovereignty $\rightarrow$ no self control problem
- ▶ Unbiased beliefs

These assumptions describe "Econs"
Do they also apply to "Humans"? And if not, how big are the
disparities?

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Econs versus Humans

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Adam Smith was Behavioral Economist

1. **Overconfidence:** the over-weening conceit which the greater part of men have of their own abilities (1776)

2. **Loss aversion:** Pain is, in almost all cases, a more pungent sensation than the opposite and correspondent pleasure. (1759)

3. **Self-Control:** The pleasure which we are to enjoy ten years hence, interests us so little in comparison with that which we may enjoy today. (1759)

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The Historical Roots of Behavioral Economics

- The farmer who would never mend his leaky roof. When it rained, he could not stop the leak, and when it did not rain, there was no leak to be stopped! - Fisher (1930)

- Day-to-day fluctuations in the profits of existing investments, which are obviously of an ephemeral and non-significant character, tend to have an altogether excessive, and even absurd, influence on the market. - Keynes (1936)

The Historical Roots of Behavioral Economics

▶ The foundation of political economy, and, in general of every
  social science, is evidently psychology.A day may come when we
  shall be able to decide the laws of social science from the
  principles of psychology. - John Maurice Clark (1918)

Explanawaytions (Matthew Rabin)

▶ In the process of making economics more mathematically rigorous after World War II, the economics profession appears to have lost its good intuition about human behavior.

1. Defective telescopic facilities were replaced with time-consistent exponential discounting.
2. Over-weening conceits were replaced by rational expectations.
3. Animal spirits were replaced by the efficient market hypothesis.

▶ How did it happen?

Explanawaytions

- the most plausible explanation is that models of rational behavior became standard because they were the easiest to solve.
- One begins learning physics by studying the behavior of objects in a vacuum; atmosphere can be added later.
- But physicists never denied the existence or importance of air; instead they worked harder and built more complicated models.
- For many years, economists reacted to questions about the realism of the basic model by doing the equivalent of either denying the existence of air, or by claiming that it just didn't matter all that much.
- Matthew Rabin has dubbed these defensive reactions as **explainawaytions**.

Explanawaytions

- It makes no sense to assume that the representative agent plays chess as well as tic-tac-toe. But that is essentially what we assume in economics.

- When we assume that agents maximize utility (or profits) we do not condition that assumption on task difficulty.

- We assume that people are equally good at deciding how many eggs to buy for breakfast and solving for the right amount to save for retirement.

- That assumption is, on the face of it, preposterous. So why has it stuck?

Explanawaytions

1. "**As if** " argument by Milton Friedman in his famous essay *"The Methodology of Positive Economics."*

2. **Learning**:
   - if you raise the stakes people will take the questions more seriously and choose in a manner more consistent with optimization.
   - if given a chance to learn, people will get it right.

As if ...

- ▶ Milton Friedman: don't judge a theory by the realism of its assumptions, but rather by the validity of its predictions. An expert in billiards plays "as if" he knew math and physics.
- ▶ But what about non experts? Thaler does not play chess as if he were Simon.
- ▶ Most economic decisions are made by amateurs.
- ▶ When problems are difficult, humans fail to optimize.

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Satisficer versus Optimizer

- ▶ A second line of defense: if our errors are randomly distributed with mean zero, then they will wash out in the aggregate, leaving the predictions of the model unbiased on average.

- ▶ This was often the reaction to Simon's (1955) suggestion that people "satisfice", (meaning grope for a satisfactory solution rather than solve for an optimal one).

- ▶ If the choices of a satisficer are not systematically different from an optimizer, then the models lead to identical average predictions.

- ▶ Moreover errors are predictable: Kahneman and Tversky (1974) humans make judgments that are systematically biased.

- ▶ Kahneman and Tversky (1979) **prospect theory**: model of decision making under uncertainty.

- ▶ Conclusion: Humans are not always "as if" maximizers.

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Rationality

Problem 1 –

► Choice A: A sure gain of $240 [84%]

► Choice B: 25% chance to gain $1,000 and 75% chance to gain or lose nothing [16%]

Problem 2 –

► Choice C: A sure loss of $750 [13%]

► Choice D: A 75% chance to lose $1,000 and a 25% chance to lose nothing [87%]

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Rationality

Problem 3 –

- Choice E: 25% chance to win \$240 and 75% chance to lose \$760 [0%]

- Choice F: 25% chance to win \$250 and 75% chance to lose \$750 [100%]

Notice that:

1. Choice E = A + D

2. Choice F = B + C

3. $B < A$ and $C < D \rightarrow$ we expect $B + C < A + D$

4. but you chose $B + C = F > E = A + D$

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Explanawaytions: Learning

- Stakes: If we raise the stakes, people will get it right. Lab experiments are low stakes, and ...

- Learning: "in the real world, people will learn."

Note that these claims are contradictory: In general, the higher the stakes are, the less practice we get.

- Milk
- Suit
- House
- Marriage
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What about the biggest stakes of all?
Efficient Market Hypothesis

Two components:

1. No free lunch: you can't beat the market.
2. The price is right. Asset prices are equal to intrinsic value.

Are Prices Right?

- ▶ This component of the EMH was long thought to be untestable.
- ▶ Who can say what the intrinsic value of Apple is?
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Cuba anyone?

- ▶ CUBA fund: A very small closed-end fund, the Herzfeld Caribbean Basin Fund, has 69% of its holdings in US stocks with the rest in foreign stocks, chiefly Mexican. It was set up in 1994. It gave itself the ticker "CUBA" despite the fact that it owns no Cuban securities nor was it legal for any US company to do business in Cuba (although that may change at some point).

- ▶ Historically, the CUBA fund traded at a 15% discount to Net Asset Value, already a bit of misbehavior.

Rational Markets?

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- ▶ Reuters: Investors in a mutual fund with the ticker symbol "CUBA" cheered Monday (Nov 28, 2016), as the share price surged in active trade in the wake of Fidel Castro's death over the weekend.

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Suggestion: Evidence Based Policy Making

- Behavioral Economics compliments standard neo-classical economics.
- If everyone adopts an evidence-based approach to economics, the behavioral economics will cease to exits. – Richard Thaler (2015)
- Be careful about terms like "Behavioral Policy Making"
- Instead promote "Evidence-Based Policy Making"

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Final Remarks: Acemoglu and List (2015)

- ▶ When we teach our students this definition of behavioral economics, we like to emphasize that behavioral economics is a series of amendments to, not a rejection of, traditional economics.

- ▶ We illustrate the complementarities between traditional and behavioral economics with an example:

- ▶ if you want to get from Chicago to the bleachers of Fenway Park to watch the Boston Red Sox, standard economics will get you to Cambridge, or even Boston University (which is adjacent to Fenway), but you may need behavioral economics to take the final steps and find your seat in the bleachers.