

Introduction and Overview

Behavioral Economics

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Intro and Overview

Behavioral Economics – A subfield of economics that seeks to increase the explanatory power of traditional models by incorporating more realistic psychological foundations

The goal is to improve economics on its own terms – generating new theoretical insights, making better predictions, and suggesting better policy. Behavioral economics does NOT imply a wholesale rejection of the traditional approach to economics, such as utility maximization, equilibrium and efficiency.

Often, these assumptions are not as outrageous as some economists think. For example, there is nothing in standard economic theory that requires that people do not care about fairness, or weigh probabilities linearly, or discount time at a constant rate.

Traditional neoclassical theory solely requires that individuals' preferences be complete and transitive, and in fact, the evidence that both of these phenomena hold is very good.

Behavioral Economics is a natural extension similar to previous fields:

Relax perfect competition → Industrial Organization

Relax perfect information → Information Economics

Relax perfect rationality → Behavioral Economics

The great economist George Stigler said economic theories should be judged by three criteria:

- 1) congruence with reality**
- 2) generality**
- 3) tractability**

Behavioral economics greatly improves (1) at the expense of (3).

Further, contrary to some beliefs that allowing irrational behavior can “allow anything to happen,” behavioral economics often allows for even *more precise* predictions and equilibria.

For example, there are often multiple possible outcomes according to Nash equilibria. However, realistic assumptions about cognitive constraints may allow us to rule out ones for the real world.

Standard model: Individual i at time $t = 0$ maximizes expected utility subject to beliefs about the probability distribution $p(s)$ about states of the world s

$$\max_{x \in X} \sum_{t=0}^{\infty} \delta^t \sum_s p(s) U(x_i | s)$$

Application: Job Decision

- 1) Time Preference: Grad School or the real world?**
- 2) Risk Preference: Pr (Successful entrepreneur) vs Pr (failure)
Pr (rock star) vs Pr (Guitar teacher)**
- 3) $U(x_i)$ implies that the only thing that matters is absolute consumption**

$$\max_{x \in X} \sum_{t=0}^{\infty} \delta^t \sum_s p(s) U(x_i | s)$$

What goes wrong?

Violations exist at each step of the decision-making process:

1) Non-standard preferences

Time preferences: People do not exhibit a constant discount factor δ

Risk preferences: Utility depends on a reference point r : $U(x | r, s)$

**Social preferences: Utility depends on the utility of others x_{-i} :
 $U(x_i, x_{-i} | s)$**

2) Non - standard beliefs: $\hat{p}(s) \neq p(s)$

For example, people:

Are systematically overconfident about their own ability

Are very poor Bayesian updaters

Overproject from their current tastes onto future tastes

3) Non- standard decision-making

For example, people:

Employ heuristics and rules of thumb

Simplify complex decisions by being inattentive to less salient features

What Behavioral Economics (and this class) is NOT:

NOT “the economics of behavior” – Becker, family, rational addiction, crime and punishment

NOT Freakonomics

NOT Experimental Economics per se

History

Economics and psychology started as the same discipline, both springing from the “moral philosophy.”

Adam Smith - also wrote a less well-known book *The Theory of Moral Sentiments*, which details now-familiar topics such as emotion, fairness, loss aversion...

Jeremy Bentham – the founder of utility theory, also wrote extensively on some of the psychological underpinnings of happiness

However, the two disciplines split at the beginning of the 20th century. Economics was striving for more precise mathematical precision than Psychology was capable of.

“Economics imitated Physics; Psychology imitated Biology.”

A few economists incorporated psychology into their models (Herb Simon, Duesenberry), but by and large, economics strove to be psychology-free.

What changed?

- **The rapid acceptance of the Discounted Utility and Expected Utility models**

Previous utility models were hard to falsify, but the above two have numerous precise and testable implications.

Strotz (1955) questioned DU; Allais (1953) and Ellsberg (1961) provided critiques of EU.

Two important and distinct phases in the birth of Behavioral Economics:

- 1) Cognitive psychologists documented a laundry list of behavioral anomalies, heuristics, and biases throughout the 60s and 70s.**
- 2) Some economists then began incorporating these anomalies into economic models, and developing a unified framework of individual behavior**

Among economists, there was very tepid acceptance throughout the 80's (Thaler's *Anomalies* series) and mild acceptance during the 90s

Current state:

25% of economists love Behavioral Economics

25% of economists HATE Behavioral Economics

50% are waiting to be persuaded by one side or the other

**Who do you think is more likely to dislike Behavioral Economics:
theorists or empiricists?**