

Second-Year Advanced Microeconomics: Behavioural Economics

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Introduction to Behavioral Economics and Decision Theory

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(with very large debts to Matthew Rabin)

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Behavioural economics is a blend of traditional neoclassical microeconomics and empirically and psychologically motivated assumptions whose goal is a better understanding of economic behavior and welfare.

The field can be subdivided into behavioural decision theory and behavioural game theory.

Each combines standard neoclassical methodology with a more flexible attitude toward behavioural assumptions, motivated by psychological realism and consistency with empirical evidence on behaviour.

Put another way, behavioural economics *is* neoclassical economics, but taking a softer and less tradition-dominated line on behavioural assumptions.

Extended quotation/paraphrase from Matthew Rabin's unpublished lecture notes:

Neoclassical economics normally assumes that Homo Economicus (possibly unlike Homo Sapiens):

- Is perfectly rational, making choices that consistently maximize some exogenous, stable set of preferences that depend on absolute levels of outcomes (rather than changes), even with uncertainty (in which case preferences are expected utility), and even in dynamic situations (in which case preferences are discounted sums of per-period expected utilities).
- Is also perfectly rational in the sense of costlessly and correctly making nonprobabilistic logical inferences and probabilistic judgments (via Bayes' Rule, contingent reasoning, option value).
- Has perfect will-power and the ability to make and follow intertemporal plans (even contingent ones), with no conflict between the preferences of current and future selves.
- Is perfectly self-interested, caring exclusively about her/his own consumption (though this assumption is not essential to mainstream theory).

In many settings these assumptions are reasonable stylizations of the “facts” that people are mostly self-interested and well-informed, with coherent goals and reasonable skill at making plans.

But in other settings the standard assumptions are unreasonable descriptions of behaviour: systematically incorrect in ways with important consequences.

In such settings they have sometimes significantly hindered research.

- They have allowed economists to ignore research that explores preferences, beliefs, information processing, and other determinants of behaviour.
(There was no need to study preferences directly, because assuming that choices maximize preferences, they can be inferred via revealed preference.)
- There was also no need to study belief formation or information processing, because it was assumed to be completely determined by rationality postulates.

Behavioural economists, by contrast, consider deviations from standard assumptions about preferences, beliefs, and information processing in settings where they are unreasonable descriptions of behaviour.

- First wave of behavioural economics: Identify “anomalies”—ways economic theory has been importantly wrong—and alternative conceptualizations.
- Second wave: Formalize alternatives in precise models, and seek empirical tests and validations.
- Third wave: Integrate models into economic analysis by embedding old and new assumptions as special cases of general models, formulating new theoretical results, empirical tests, and applications.

Third wave premises:

- Adding untraditional assumptions doesn't mean abandoning traditional methods. The implications of nontraditional assumptions, even those involving limits to rationality, should be studied using standard mathematical methods; tested using standard statistics and econometrics; and judged by standard scientific criteria such as parsimony, prediction, generality, insight.
- Adding untraditional assumptions doesn't mean abandoning traditional assumptions. Despite the limits to the empirical validity and applicability of standard assumptions, they are often appropriate even if not exactly right.
- Behavioural economics should enhance, not replace, traditional economics; eventually it should merge into it and cease to exist as a separate field.

In general, behavioural decision theory covers:

- Present-bias and time-inconsistency in intertemporal choice
- Reference-dependence and loss aversion in choice under certainty or uncertainty
- Ambiguity aversion in choice under uncertainty
- Social preferences (altruism, envy, spite, fairness, reciprocity, etc.)
- Overconfidence, identity, and self-image
- Heuristics and biases in probabilistic judgment

My decision theory lectures this year (there will also be some game theory) will consider present-bias and time-inconsistency in intertemporal choice.

Professor Mukerji's lectures will cover reference-dependence and loss aversion, and social preferences. (He will also cover some topics related to behavioural economics in Topics in Choice under Uncertainty, weeks 4-5, Hilary Term 2012.)

The topics in this course will vary from year to year to provide broader coverage.