

DECISION-MAKING UNDER UNCERTAINTY

Behavioural Economics

Kahneman & Tversky · Thaler · Ariely · Sunstein

PAPER 01 / 03

A Furtherance reference compendium on the intellectual traditions behind organisational design, leadership, execution, and culture.

IN THIS PAPER

This paper opens the Decision-Making Under Uncertainty series in Furtherance's reference library. It covers the behavioural tradition – the body of work establishing that people depart from rational choice in systematic, predictable ways. The question it answers: how do human judgements actually deviate from the rational ideal, and can those deviations be designed around?

The four contributions build a single case. Kahneman and Tversky show that judgement runs on heuristics that produce reliable biases. Thaler carries the finding into economics and policy. Ariely popularises it through vivid demonstrations. Sunstein turns it into choice architecture. A closing caveat addresses how well this literature has held up.

Daniel Kahneman & Amos Tversky 1970s–2011

Cognitive psychology · the founders of behavioural decision theory

CORE THESIS

Under uncertainty, people rely on a few **heuristics** that usually work but produce **systematic biases**. Their **prospect theory** showed that choices under risk violate expected-utility theory: we judge outcomes as gains and losses from a reference point, feel losses about twice as keenly as equivalent gains, and misweight probabilities.

FRAMEWORK

Heuristic	Bias it tends to produce
Availability	Judging likelihood by what comes easily to mind
Representativeness	Ignoring base rates; seeing false patterns
Anchoring and adjustment	Estimates pulled toward an initial number

Prospect theory feature	Meaning
Reference dependence	Value is felt as change from a reference point, not absolute wealth
Loss aversion	Losses loom roughly twice as large as equivalent gains
Probability weighting	Small probabilities over-weighted; large ones under-weighted
Framing	The same choice, framed as gain or loss, flips preferences

Kahneman later popularised the **two-systems** account: a fast, intuitive System 1 and a slow, effortful System 2.

METHODOLOGY

Controlled behavioural experiments. The programme reshaped economics and psychology; Kahneman received the 2002 Nobel in economics (Tversky, who died in 1996, could not share it).

SIGNIFICANCE AND CRITIQUE

The foundation of behavioural economics, which dislodged the rational agent from the centre of economic thought. The critique: some effects in the wider heuristics-and-biases and priming literature have replicated poorly – a point Kahneman himself conceded – and laboratory effects do not always survive in the field.

Richard Thaler b. 1945

Behavioural economics · nudge · University of Chicago

CORE THESIS

Real economic agents are **Humans**, not the **Econs** of theory: they hold mental accounts, over-value what they own, and struggle with self-control. Because their departures from rationality are predictable, **choice architecture** can gently steer better outcomes while leaving people free to choose.

FRAMEWORK

Concept	What it describes
Mental accounting	Treating money differently by arbitrary category
Endowment effect	Valuing a thing more once we own it
The nudge	Changing the choice architecture, not the options
Save More Tomorrow	Pre-committing future raises to savings to beat inertia

METHODOLOGY

Behavioural theory tested through laboratory and field experiments; recognised with the 2017 Nobel in economics.

SIGNIFICANCE AND CRITIQUE

Moved behavioural economics from the margins into mainstream economics and public policy. The critique: nudges deliver modest and variable effects in practice, and “libertarian paternalism” raises real questions about who decides what is better.

Dan Ariely Predictably Irrational, 2008

Behavioural economics · popular demonstration

CORE THESIS

Irrationality is not random but **predictable** – and therefore studyable and anticipatable. Much of choice is driven by relativity, context and emotion rather than absolute value, which is why small changes in framing move behaviour so sharply.

FRAMEWORK

Effect	Description
The decoy effect	Adding a dominated option shifts choice between the others
Arbitrary coherence	Random anchors shape later willingness to pay
The zero-price effect	“Free” is treated as categorically different from cheap
Social vs market norms	Money can crowd out goodwill; the two norms don't mix

METHODOLOGY

Laboratory and field experiments, presented for a broad audience through memorable demonstrations.

SIGNIFICANCE AND CRITIQUE

Did much to popularise behavioural economics. The critique is pointed and belongs in the caveat below: several demonstrations have been contested, and some of Ariely's research on dishonesty has been the subject of serious, documented data-integrity investigations.

Cass Sunstein b. 1954

Law and behavioural policy · Harvard

CORE THESIS

Because some choice architecture is unavoidable, it should be designed to help people while preserving freedom – **libertarian paternalism**. Defaults, salience and simplification shape decisions powerfully, and institutions should use them responsibly.

FRAMEWORK

Lever of choice architecture	Effect
Defaults	The pre-set option is what most people end up with
Salience and framing	What is prominent gets chosen
Simplification	Reducing friction raises take-up of good options
Feedback and error-tolerance	Designs that forgive and inform reduce mistakes

Sunstein also documented how groups decide badly – through informational cascades and polarisation – not just individuals.

METHODOLOGY

A legal-behavioural synthesis applied directly to regulation, including his time leading the US Office of Information and Regulatory Affairs.

SIGNIFICANCE AND CRITIQUE

Translated behavioural science into public policy at national scale. The critique centres on the efficacy and ethics of nudging – how durable the effects are, and where influence shades into manipulation.

A NOTE ON EVIDENCE

A caution for the sceptical reader: parts of this literature have been dented by the replication crisis in social and behavioural psychology. Several classic priming effects have failed to replicate, nudge effect-sizes shrink under meta-analysis and publication-bias correction, and some prominent behavioural research – including work on dishonesty associated with this paper's authors – has faced credible data-integrity findings. The core results (loss aversion, framing, defaults) are robust; treat the longer tail of striking effects with calibrated caution.

Synthesis

Contribution	Core idea	Key concepts	Critique
Kahneman & Tversky	Systematic biases; prospect theory	Heuristics; loss aversion	Some effects replicate poorly
Thaler	Humans, not Econs	Mental accounting; nudge	Nudge effects modest
Ariely	Predictable irrationality	Decoy; anchoring; free	Findings contested; data concerns
Sunstein	Design the choice architecture	Defaults; libertarian paternalism	Efficacy and ethics debated

FOR THE OPERATOR

Behavioural economics establishes that our departures from rationality are systematic enough to anticipate and design around – with heuristics and biases, the Humans-versus-Econs distinction, and choice architecture. For the operator: expect predictable bias in yourself and others, and shape defaults and framing deliberately – while holding the flashier findings with the scepticism the caveat urges. The next paper asks a sharper question: are these “biases” failures at all, or adaptations to a hard world?