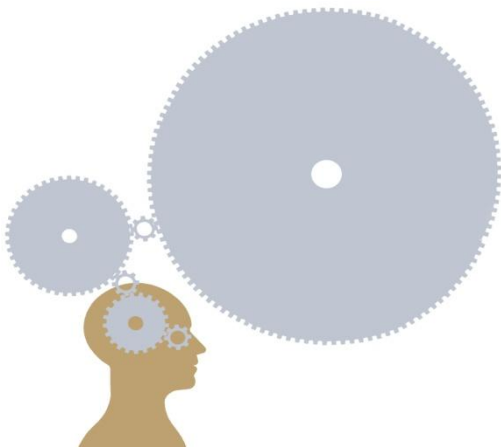


Behavioural economics and its impact on competition policy: a practical assessment

Competition Workshop EZ, CPB, TILEC

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Overview

- introduction: a polarised debate
- insights from behavioural economics (BE)
- effect on market outcomes
- impact on competition policy tools
- remedy design
- policy conclusions

A polarised debate in academia and policy

Against BE

- traditional models can explain phenomena such as search costs or asymmetric information
 - rationality assumption works
- competition policy implicitly accounts for consumer biases
- competition law mostly about business conduct
 - consumer biases best dealt with by consumer protection
- empirical foundations of BE not yet sufficient

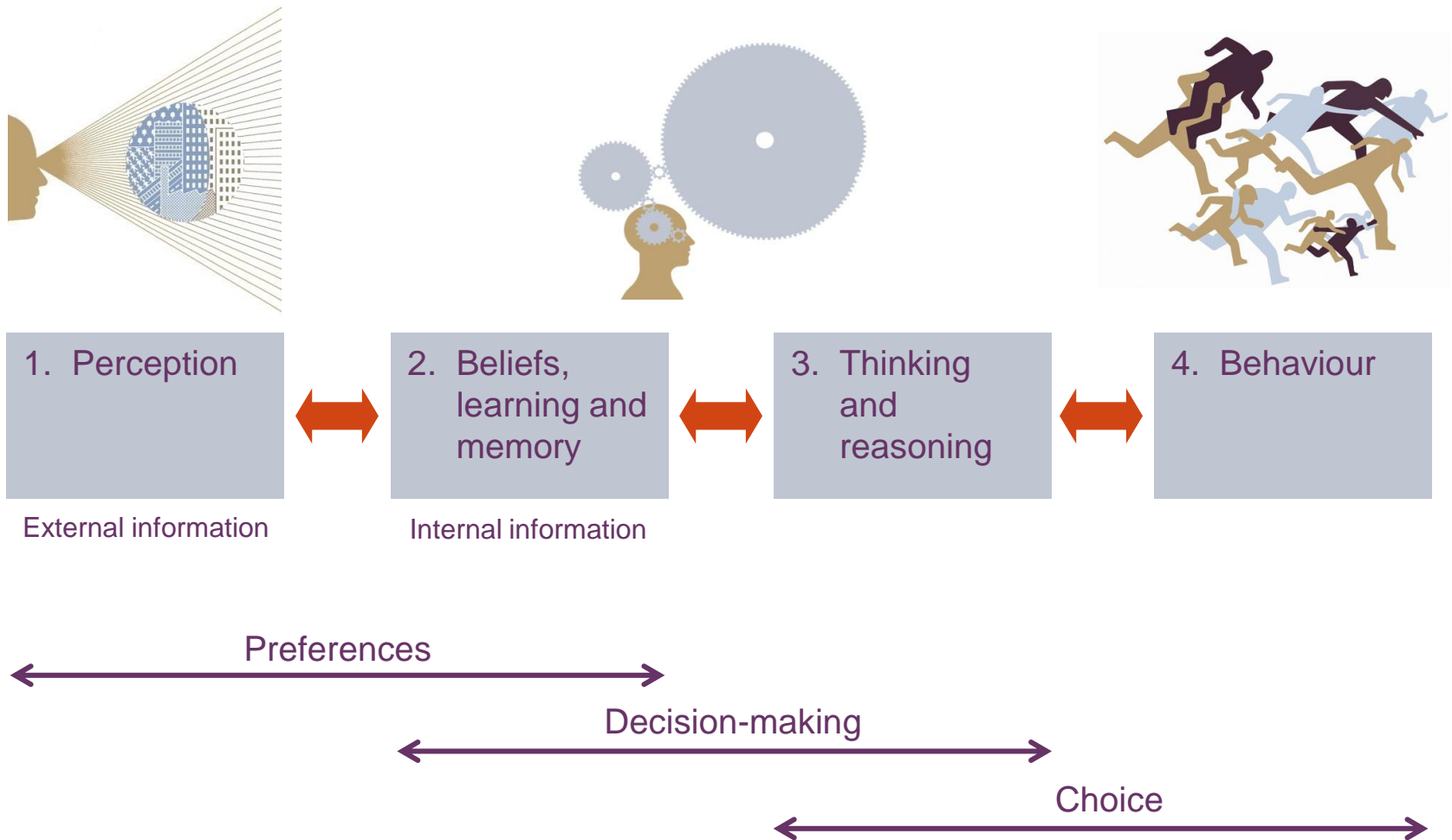
For BE

- a coherent framework integrating insights from psychology into how people really behave
 - rationality assumption unrealistic
- some consumer behaviour and market outcomes better explained by BE
- more radical view: paradigm change to 'behavioural antitrust'

The Oxera study for the Netherlands Authority for Consumers and Markets

- systematic assessment of relevance to competition law tools and instruments
 - agreements; abuse; mergers
 - not consumer protection
- focus on consumer biases
 - not firm biases (less developed) or behavioural finance
 - 'behavioural antitrust' is a misnomer
 - governments subject to biases too
- illustrative examples from financial services
 - complex products, infrequent purchases, delayed impact

Psychology and economics



Source: Oxera.

Insights from behavioural economics



Context-dependent	Not purely self-interested	Both formal and informal reasoning	Part optimising; part satisfying; part inert
Externally influenced	Relative payoffs matter	Both automatic and reflective	Potentially time-inconsistent
Constructed through 'choice process'	Imperfect (and biased) recall	Use heuristics	Conflict between short-term urges and long-term plans

Framing effects and preferences

The importance of context



Source: Butler, G. and McManus, F. (1998), 'Psychology: A Very Short Introduction', Oxford University Press.

Framing and loss aversion

EU prepares for outbreak of X^{250}



The EU is preparing for an outbreak of an unusual disease, X^{250} , which is **expected to kill 600 people**. Two alternative programmes to combat the disease have been proposed.

The **exact scientific estimates** of the consequences of the programmes are as follows.

- if programme A is adopted, 200 people will be saved
- if programme B is adopted, there is a one-third probability that 600 people will be saved, and a two-thirds probability that no people will be saved

Which of the two programmes would you favour?

See Note slide at end of pack.

Framing and loss aversion

EU prepares for outbreak of X²⁵⁰



The EU is preparing for an outbreak of an unusual disease, X²⁵⁰, which is **expected to kill 600 people**. Two alternative programmes to combat the disease have been proposed.

The **exact scientific estimates** of the consequences of the programmes are as follows.

- if programme C is adopted, 400 people will die
- if programme D is adopted, there is a one-third probability that nobody will die, and a two-thirds probability that 600 people will die

Which of the two programmes would you favour?

See Note slide at end of pack.

Time-inconsistent choices

Fruit or chocolate?

Read and van Leeuwen (1998) examined how individuals make choices between healthy options (fruit) and unhealthy options (chocolate)

Decide

Eat



- if you were deciding **today**, would you choose to eat fruit or chocolate **next week?**
- 74% chose fruit

Decide + Eat




- if you were deciding **today**, would you choose to eat fruit or chocolate **today?**
- 70% chose chocolate

This demonstrates a preference reversal or 'time inconsistency' stemming from the desire for immediate gratification or 'present bias'


Read and van Leeuwen (1998), 'Predicting Hunger: The Effects of Appetite and Delay on Choice', *Organizational Behavior and Human Decision Processes*, **76**:2, November, pp. 189–205.

What biases can result?

1. framing affects preferences

- loss aversion  sensitivity to information frame (eg, X^{250})
- can lead to status quo bias, default bias and inertia

2. instinct and heuristics can be wrong

- representativeness bias  errors
- availability bias; optimism bias; confirmation bias
- herd behaviour may not be rational

3. too much information is as bad as too little




4. 'now versus later' decisions can be difficult

- I may not know what is in my long-term best interest
- I may not act on my best interest (immediate gratification)

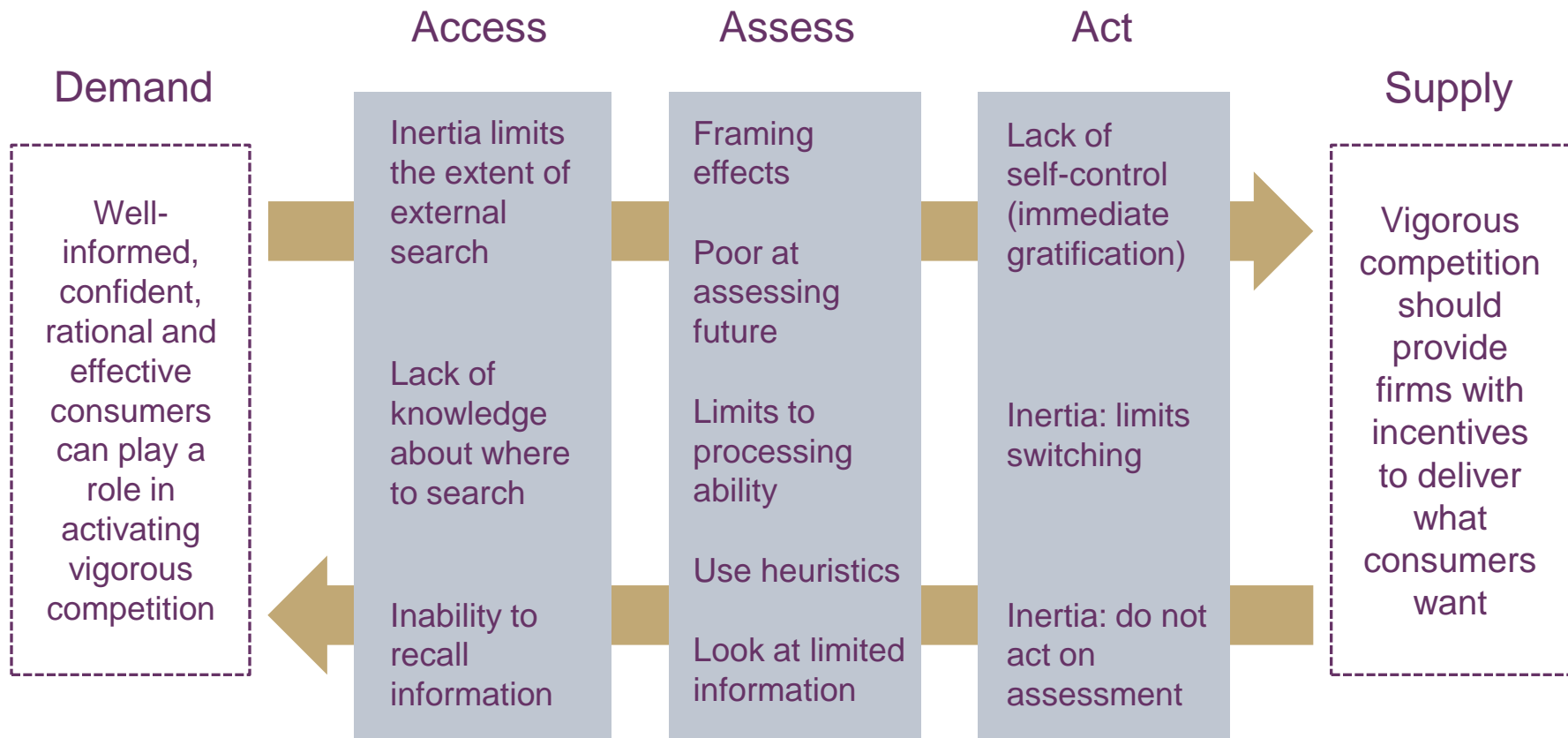
A note on terminology

- terms **consumer bias** and **irrational consumers** often used in the literature
- humans' cognitive and behavioural characteristics simply exist, and cannot be judged to be erroneous
- from a scientific standpoint, the term **bias** is simply a deviation from the norm or from some standard model. It does not mean negative or bad
- it is often 'rational' for consumers to rely on heuristics to make quick decisions, rather than exploring every angle before buying something

Effect on market outcomes

- importance of the demand- (as well as supply-) side
 - what factors *really* influence consumer choice?
 - consumers can suffer from biases in undertaking choice
 - firms may then seek to take advantage of these biases
- recent OFT study  three stages
 - accessing information (eg, making search harder)
 - assessing offers (eg, complex pricing)
 - acting on information (eg, defaults, automatic renewals)

Effect on market outcomes: interaction between demand and supply



Source: OFT (2010), 'Behavioural economics and competition policy', presentation by Amelia Fletcher, OFT behavioural economics seminar, April 22nd.

Effect on market outcomes: business practices exploiting consumer biases

- old marketing tricks
 - 'was €2, now €1'
 - 'while stocks last'
- partitioned, add-on or drip pricing
 - plays to anchoring and loss-aversion bias → you feel you already own the product
 - ebay: high price with low shipping charge more attractive
- product differentiation and multiple attributes
 - experiments: buyer confusion → higher prices
 - works with consumers, but not with robots!

Effect on market outcomes: pockets of market power

- disciplining by consumers
 - biases can result in customer inertia
 - learning may not always work (eg, complexity, infrequent purchasing)
- naive versus sophisticated consumers
 - latter often protect former, but may not work with add-ons or drip pricing
- disciplining by rivals: more competitors does not necessarily improve outcome

Main finding: firms may have a greater and more persistent degree of market power than previously thought → what does this mean for competition policy?

Market definition

- SSNIP test: consumer response to price changes → reasons behind response do not matter (bias or no bias)
 - revealed versus stated preferences
 - however, BE insights can help with model specification
- price discrimination markets
 - naive versus sophisticated customers
 - analyse whether price differences are persistent
- market definition with secondary products or add-ons
 - same problem as aftermarket: starting point matters
 - analyse what consumers focus on → add-ons separate?

The payment protection insurance (PPI) case: a precedent on narrow markets?

- PPI: popular retail insurance product, sold alongside personal loans, credit cards, overdraft facilities and mortgages
- most lenders offered PPI only in combination with the credit product; stand-alone PPI volumes were low (most important alternative: no PPI; 60–80%)
- consumer surveys showed awareness and shopping around, but considered insufficient competitive pressure
- CC: relevant market is an individual distributor's sales of a particular type of PPI → each distributor held an effective monopoly over the sale of PPI to its own credit customers

Source: Competition Commission (2009), 'Market investigation into payment protection insurance', January 29th.

Abuse of dominance, agreements and mergers

- exploiting consumer biases → difficult to treat as exploitative abuse
- BE adds insight for effects-based approach to exclusion, even where abusive practice is not 'a BE issue' as such
 - customer inertia can facilitate tying and bundling
 - partitioned pricing can raise entry barriers
 - tied versus independent financial advisers/distributors: BE sheds light on competitive dynamics in distribution chain
- firm bias literature: insights on collusion, tacit collusion, predation and merger rationales
 - theory and empirics not yet sufficiently developed

Empirical techniques

- econometric analysis of revealed preferences:
BE insights can help to identify which variables to include in the model, and to interpret the results of the analysis
- BE sheds significant light on survey design → already helped guidance on best practice
 - avoid framing and other biases in questions
 - complexity and wording: percentages versus numbers
 - sampling: naive versus sophisticated customers
- potential to make greater use of experiments in competition investigations (eg, market definition)
 - the 'Pepsi test'

Remedies

- liberal paternalist measures → leave choice
 - simplifying information disclosure to the salient points, in order to overcome framing, information overload, and inertia
 - compelling consumers to make a choice ('forced choice')
 - using default opt-ins or opt-outs where there is a superior outcome for consumers
 - more cost-effective than subsidies or education programmes for example, and limited unintended consequences
- stronger interventions aimed at preserving consumer sovereignty (eg, prohibition on point-of sale PPI)
 - makes some consumers (eg, sophisticated) worse off, but, overall, consumers as a group can be better off

Remedies: effects of defaults

- Laibson study on uptake of savings plans
- default non-enrolment (opt-in) 40%
- quick (check-box) enrolment 50%
- active choice 70%
- default enrolment (opt out) 90%

Microsoft remedy: Windows with and without Media Player → ineffective

Better remedy: include a CD containing a random choice of media players; force consumers to make a conscious choice; no default option

Sources: http://ec.europa.eu/consumers/conferences/behavioural_economics2/docs/David_Laibson_en.pdf; Case COMP/39.530 — *Microsoft* (Tying), notified under document C(2009) 10033, Official Journal of the European Union, C 36/7.

Policy conclusions

- ➔ no need to rewrite competition law textbooks
 - BE insights relevant in small but significant number of cases
- ➔ BE part of competition economics toolkit
 - no category of 'BE cases'
 - BE adds additional insights into consumer behaviour
 - can be relevant for diagnosis and/or remedy design
- ➔ consumer policy and financial regulation can be more direct instruments
- ➔ market investigation instrument worth considering in addition to rules on agreements, abuse of dominance and mergers

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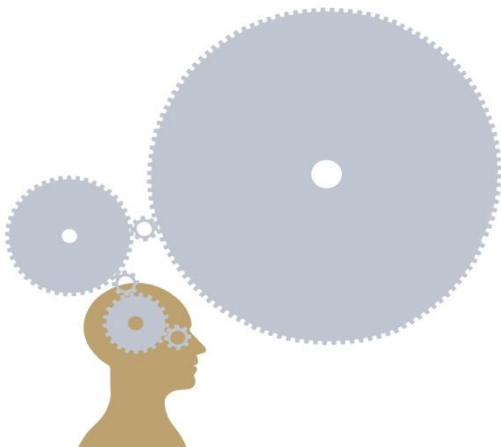
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Notes

1. News Flash X²⁵⁰—this is based on an experiment described in Kahneman, D. and Tversky, A. (1984), 'Choices, values and frames', *American Psychologist*, **39**:4, pp. 341–50.

The authors presented the two dilemmas to a large sample of physicians. In the first dilemma (option A versus option B), 72% chose programme A (the safe option), and only 28% chose programme B (the risky gamble). This might be expected for people with 'risk-averse' preferences (people prefer definite outcomes to risky ones).

When the same dilemma was framed in terms of losses (option C versus option D), 22% chose programme C (the safe option), while 78% chose programme D (the risky gamble). In fact, the two dilemmas posed are identical in terms of outcomes (outcome A = C and outcome B = D). Rather, it was how the information was presented or *framed* in terms of switching from gains ('save') to losses ('deaths') that led the physicians to reverse their choices.

Even after re-reading the problem, physicians *still* wanted to be risk-averse in the first dilemma and risk-taking in the second dilemma: the willingness to take risk to avoid lost lives in option D overpowered any risk aversion present.

This reversal phenomenon breaches a key assumption in traditional economics that preferences are invariant to the initial status quo *endowment* (preference orders should not change when the *description* of outcomes changes). The phenomenon is called *loss aversion* or the *endowment effect*. The authors note that 'in their stubborn appeal, framing effects resemble perceptual illusions more than computational errors'—that is, instinctively, losses make us feel bad. It is more to do with our innate preferences and emotions than our computational ability to make decisions.