Behavioural Economics in Competition and Consumer Policy
Acknowledgement

CCP gratefully acknowledges the support provided by the Economic and Social Research Council (ESRC). The views and statements expressed in this book are those of the authors and do not necessarily reflect the views of the ESRC.
Would you like to understand what impact a “smart nudge” or “hyperbolic discounting” could have on consumers in a market which you believe is important? What about “asymmetric paternalism”, “leptokurtosis” or the “endowment effect”? This book will be of interest to policy-makers, regulators, campaigners, students and anyone else who wants to understand how consumer behaviour affects the way that markets work. If you are seeking to devise appropriate policy interventions to make markets work better for the consumers they are intended to serve - and perhaps just as important, how to avoid inappropriate interventions – you will find clear, intelligible explanations, case studies and lessons in these pages.

Behavioural economics helps us to understand the gap between the world of classical economic theory and the world of real markets, businesses and customers. It draws lessons from psychology and anthropology as well as economics, and it has important implications for law and politics. In recent years it has become a key part of every regulator’s toolkit. This book summarises the most significant developments in thinking in this area: for some it will be an accessible introduction, for others a reminder and a reference point to the more detailed analytical studies that are available. Dip in, or read from cover to cover. And don’t forget that we are all behavioural consumers in some parts of our lives.

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The ESRC Centre for Competition Policy (CCP) at the University of East Anglia (UEA) was established in 2001, and in 2004 obtained a grant from the Economic & Social Research Council (ESRC) to fund its research programme. The Centre conducts interdisciplinary research into competition policy, including market regulation, which has real-world policy relevance without compromising academic rigour.

CCP currently has 26 academic faculty members working on the Centre's research programme, several of whom are based full-time in the Centre each semester. Also contributing to the research programme are three post-doctoral Research Fellows, six Research Associates, and 26 PhD students.

CCP's research programme explores competition policy from the perspectives of economics, law, business management and political science. Economic analysis provides a formal understanding of how consumers, firms and markets behave, of when markets fail for lack of competition, and of the consequences of policy interventions. Legal analysis is necessary because the courts establish standards and provide the framework within which competition agencies have to operate. Business management provides practical insights to how firms actually behave. And political science provides insights to the design and development of policies, as well as the bodies that implement them.

CCP has experience in conducting analyses of many sectors of the economy, including the utilities (especially energy markets), the banking sector, the media and creative industries, mobile telecommunications, and the healthcare sector. The Centre has expertise in a range of methodologies, including economic modeling, econometric and statistical analysis, surveys, interviews, and experiments.
In addition to its academic programme of research, CCP has a track record of designing and delivering bespoke courses to meet the training needs of authorities and other agencies as well as private sector organisations. The Centre also undertakes commissioned research and consultancy for a range of public, private and third sector organisations. It has experience in delivering high quality research on time and at all levels. Written reports and personal presentations are tailored to the target audience in order to effectively communicate research findings. To guarantee independence and integrity, Centre research appears in the public domain; but it is recognized that exceptionally there may be a need to observe confidentiality.

CCP actively engages with, but is independent of, government departments, regulatory authorities and other agencies (for example, the Department of Business, Innovation & Skills (BIS), the European Commission, the Competition Commission, the Office of Fair Trading (OFT), the Financial Conduct Authority (FCA), OFGEM, OFCOM, OFWAT, and the World Bank), and private sector practitioners.

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Introduction

Judith Mehta

Recent years have seen academics and policy-makers take a keen interest in the implications of behavioural economics for competition and consumer policy. *Behavioural Economics in Competition and Consumer Policy* has been written by CCP researchers from economics, law, politics and business management; it reflects their interest and expertise in the area and the Centre’s multidisciplinary approach to policy-making. The book draws on the insights researchers have acquired - through surveys, experiments, theoretical work and market case studies - into specific behavioural issues and how these may or may not be resolved by intervention. It is aimed at policy-makers and practitioners who may be weighing up whether and how to take the evidence on behavioural traits into account when considering intervention in markets. The book has been written in a way which we hope will make it accessible to a wide range of readers, whether in public, private or third sector organisations.

In this Introduction, we begin by sketching out the evolution of behavioural economics as the means of providing a wider context for discussion of the implications of behavioural traits for competition and consumer policy. Central to this story has been recognition of the limitations of rational choice theory when it comes to describing and predicting the decision-making behaviour of individuals, alongside the vital role played by laboratory experiments in developing and testing hypotheses relating to individuals’ behavioural traits. The timeline of behavioural economics is also important for demonstrating where we are now, in particular, that our understanding of the behavioural individual is far from complete and continues to unfold, implying the need for careful assessment of the impact of remedies on a case-by-case basis. Following this section, we outline the organisation of the book, pointing to the key themes and issues appearing in each chapter.

A short history of behavioural economics

It is difficult to put a firm date on when behavioural economics first made an appearance in the academic arena. However, important stepping stones can be identified. Thus, many commentators would point to the work of Herbert Simon as exerting a powerful stimulus to the evolution of the field. As early as 1959, Simon offered an influential critique of the ‘classical’ concept of rationality. Simon observed that it is not at all clear that individuals behave in accordance with the assumptions underpinning the standard model of how rational people are expected to behave in decision-making and, indeed, that the real world is so complicated that the theory of utility maximisation has little relevance to real choices. This being the case, Simon made two key proposals: first, that economists should look to the literature of psychology for insights to the kind of behaviour to emerge, crucially, “when perception and cognition intervene between the decision-maker and his objective environment” (Simon, 1959, p.272); and second, that theories of decision-making need to take into account factors such as limited information processing capacity, bounded rationality, and the role of heuristics and biases in decision-making.

1 CCP researchers have been active contributors to this unfolding narrative, some of them from its inception. Thus, Robert Sugden’s first work in behavioural economics began in about 1979 and was marked by the publication of a theoretical paper on regret theory in 1982, co-authored with Graham Loomes: Loomes G and Sugden R, 1982, ‘Regret theory: An alternative theory of rational choice under uncertainty’, Economic Journal, 92, 805-824. Under the supervision of Sugden, a laboratory of experimental economics was established in 1986. Then, in 2007, the Centre for Behavioural and Experimental Social Science (CBESS) was established with the stated mission of furthering the long tradition at UEA of using controlled laboratory and field experiments to study key questions in the social sciences, from foundational and methodological issues to applied research. Several contributors to this book are members of CBESS as well as CCP.

should be firmly grounded in an empirically founded theory of choice with attention given to how people actually process information.\(^3\)

Ideas originating with Simon – such as his notion of ‘bounded rationality’ and the attention he drew to the influence on behaviour of the ‘framing’ of the decision-making scenario – began to impact on economics as controlled laboratory experiments in decision-making started to take place and then mushroomed. A key impetus to the use of what was considered by economists at the time to be a novel, even contentious, methodology was provided by Tversky and Kahneman in a paper published in 1974 in which the two psychologists developed and tested the idea that cognitive biases can intervene in the judgements reached by decision-makers.\(^4\) This and subsequent papers by the same authors opened up an arena in which many economists positively welcomed collaboration with psychologists as the means of developing insights to judgement and decision-making behaviour. Experimental economics – the antecedent of behavioural economics – moved from the periphery of the discipline towards the centre as evidence accrued of non-standard preferences, biased beliefs and the limited cognitive skills, attention and willpower of many decision-makers, and the association of these attributes with suboptimal outcomes.\(^5\) Much of this evidence continues to be collected by psychologists, and by economists working at the interface between economics and the cognitive sciences, but also by some of the lawyers working with a behavioural approach to law and economics. For those researchers who are particularly concerned with the implications of behavioural economics for competition and consumer policy, the cognitive architecture of decision-making has come to be treated seriously, first, in explaining why it is that ‘behavioural’ consumers tend to do less well in markets when compared to their rational counterparts, and then in developing the remedies that can help them do better.

Behavioural economics has travelled a long way in a relatively short time. It is indicative of the rapidly changing status of both experimental economics and behavioural economics in the academic arena that Herbert Simon received the Nobel Prize for Economics in 1978 for introducing to economic analysis an alternative vision of the decision-making agent, and then that in 2002 Daniel Kahneman and Vernon Smith shared the Prize, the former for integrating insights from psychology into economics, especially those relating to judgement and decision-making under uncertainty, and the latter for establishing laboratory experiments as a vital tool in empirical economic analysis. But what is all the more remarkable is the speed with which the insights of behavioural economics have been picked up and applied by policy-makers when considering intervention and designing remedies. Most recently, these take the form of so-called ‘soft’ or ‘weak’ paternalist remedies, such as ‘nudging’ (see Box 7.1). Indicative of the significance of this development has been the establishment in 2010 of the Behavioural Insights Team (or ‘Nudge Unit’) at the heart of government in the Cabinet Office.\(^6\)

It is important to stress that these developments do not imply that rational choice theory has been superseded and thrown out – far from it. The model it offers of how people are expected to behave in their interactions with markets continues to act as a benchmark in the generation of policy in

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6 https://www.gov.uk/government/organisations/behavioural-insights-team
the firm belief that active and informed consumers play a key role in driving the competitive process. Moreover, there is evidence that some consumers do, indeed, act rationally, and that some behavioural consumers when left to their own devices can learn from their mistakes; clearly, the interests of these consumers must be taken into consideration in the design of remedies to avoid imposing harm on them. At the same time, the effectiveness of policy measures designed to improve on consumers’ market outcomes turns on understanding how ‘ordinary’ people – as against the ideal types of rational choice theory – process and respond to information. Accordingly, evolving models of the behavioural decision-maker have come to sit alongside the standard model of rationality.

The ‘history’ of behavioural economics is dynamic and continues to unfold. The focus of this book is necessarily on what we do know about consumers’ behavioural traits and how firms may respond to these. But firm and consumer behaviour is rarely simple. As we observe in Chapter 1, it is not just consumers but firms, too, who may be subject to behavioural biases. And, given the relatively short history of the field, it cannot be assumed that all possible behavioural traits, and their precise forms in all possible situations, have been discovered. Moreover, different people can react very differently to broadly similar circumstances, and the same individual can act rationally in one market but not in another. This being the case, the design of remedies is not straightforward and, as several chapter authors observe, intervention can have unforeseen consequences. As an example, consider the ‘cooling-off’ periods that are introduced to provide consumers with the opportunity to review and potentially reverse purchasing decisions made when they were in an emotionally ‘hot’ state and hence without adequate reflection; as we discuss in Chapters 6 and 7, there is the potential for these to trigger even less reflection at the point of sale, leading to outcomes that are possibly worse compared to the situation in which there is no intervention at all. The implication for competition and consumer policy of this and several other examples and case studies provided by the book is that behavioural economics must be ‘handled with care’, with attention given to the impact of a remedy on a case-by-case basis.

The organisation of the book

*Behavioural Economics in Competition and Consumer Policy* is divided into three parts, with boxed inserts used for real-world case studies and examples or to develop on key points made in the text.

**Part 1** provides an introduction to the terrain of behavioural economics and its implications for competition and consumer policy.

In Chapter 1, Enrique Fatas and Bruce Lyons discuss the ways in which consumer decision-making may not be fully rational and how firms may exploit such behaviour. In particular, we find that some people are unable to collect and process all the available information that would potentially help them make a rational decision; where this is the case, some firms will have an incentive to obscure key decision-relevant facts so that these behavioural consumers end up paying higher prices or buying lower quality products than if their decision-making skills were unbounded. The authors consider the remedies that are appropriate for interventions founded on behavioural economics. A major issue in this regard – and one that resurfaces in further chapters of the book – is how to design a remedy such that, in correcting one distortion of the market, the remedy doesn’t introduce a new one. Fatas and Lyons conclude that competition and consumer policy does, indeed, have an important role in helping consumers obtain better market outcomes, but that it needs very careful design if it is to avoid doing more harm than good.

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7 Indeed, as we point out in Chapter 7, policy-makers may themselves be prone to behavioural biases.
In Chapter 2, Judith Mehta and Robert Sugden pick up on a key topic of the previous chapter: the price complexity that may be introduced by some firms and its impact on the market. The topic is addressed in the context of the information revolution and the explosion of internet commerce. Yes, more information is now available to us; and, sometimes for good but sometimes for ill, this has made it easier for firms to know more about their customers. The authors describe some of the pricing practices deployed by firms - drip pricing, baiting, price partitioning and complex offers - and they discuss the impact of these on consumers and on the efficiency of the market. But they also discuss some of the market’s self-regulating tendencies which work against such anti-competitive and exploitative practices. The second major topic of this chapter is the concept of ‘choice overload’. The authors ask whether this describes a genuine phenomenon: is choice something that ‘no longer liberates, but debilitates’ to the point where we can say there is too much choice? The authors conclude that choice overload is a genuine phenomenon in certain types of choice environment, but they also warn against an overly extravagant rhetoric with the potential to lead to protectionism.

Then in Chapter 3, Shaun Hargreaves Heap draws on theory and on the evidence from experiments to discuss the ways in which people’s choices often seem to change as a result of social influences. These influences are various, as are their implications for policy. The author points to how the behaviour of others can transmit useful information to observers about how best to satisfy their preferences – but also to how it can lead to networks of people becoming locked in to suboptimal outcomes. The author also observes that people’s preferences are not always as well-formed as standard theory presupposes; under these conditions, preferences can be influenced by those of the people one associates with, which is why many individuals are drawn to follow what others do. These and other situations in which people are influenced by those around them point to the scope for new kinds of policy, to new issues in the conduct of competition and consumer policy and, ultimately, to questions concerning whether efficiency can be the criterion for guiding policy.

Part 2 of the book turns to empirical case studies. Chapters 4 and 5 focus on the belief that consumers play a vital role in the competitive process by being ready and willing to move their custom to where the best deals are available, thereby providing an incentive to firms to cut prices and improve on quality. This being the case, issues arise for policy-makers when some consumers appear to manifest inertia, that is, a reluctance to switch provider.

In Chapter 4, Minyan Zhu draws on responses to a CCP survey of consumers to address the question of why some consumers search and switch, some search but don’t switch, and others neither search nor switch. Having reviewed the evidence from several different markets, the author concludes that, in a number of cases, it is questionable whether the failure to switch is the result of biased decision-making or error, and suggests that it may be instead the result of a preference to stay with the current supplier.

Chapter 5 focuses specifically on energy markets, a sector where policy-makers have been disappointed by low levels of switching. Catherine Waddams Price presents evidence from surveys and experiments to shed light on why this might be the case and then considers the solutions that might be imposed. The author finds that intervention is not straightforward because different people react very differently to the market: some consumers are active and some are not, and firms have learnt to discriminate between the two, offering better deals to those who are active than to those who are content to stay with their current provider. Policy aimed at raising consumer activity needs to take account of these differences if it is to be effective and not to introduce unintended adverse consequences.
Part 3 of the book both looks back and projects forwards. We reflect on what has been learnt about the behavioural consumer in theory and through the experience of a number of behavioural remedies. We then consider where a new body of literature is taking us with respect to policy-making.

In Chapter 6, Morten Hviid draws on a series of case studies and examples to examine the problems which can arise for consumers before, at and after the point-of-sale, and the remedies designed to address these problems. The author points to two key problems facing consumers in choosing between products (or, indeed, in determining whether or not to make a purchase at all): first, the problem of acquiring the information necessary to make a decision, and second, the problem of processing that information in order to make the best use of it. The author discusses the conditions under which the market may spontaneously address these problems before turning to situations in which intervention becomes necessary. Some of the difficulties associated with implementing remedies are discussed, as well as the conditions which must be in place for a remedy to be effective and for it not to deliver unforeseen consequences. In the face of the difficulties, the author stresses the importance of evaluating proposed remedies. Accordingly, this chapter includes a boxed insert in which Franco Mariuzzo discusses econometric approaches to the assessment of markets before and after the introduction of remedies and a novel technique designed to enhance our ability to assess behavioural remedies.

Chapter 7 takes a close look at a particular niche within behavioural economics, the literature of ‘behavioural law and economics’ and the kind of remedies proposed under this heading by legal academics. This literature draws on insights from behavioural economics to suggest that interventions can be devised to steer individuals towards choices which make them better off. For example, a mandatory cooling-off period may be introduced to ensure consumers have an opportunity to reflect on the product on offer and to check on the availability of competing products. Michael Harker and Judith Mehta point to a number of issues arising from this approach, including the potential for behavioural remedies to be challenged in the courts and the danger that unintended consequences will result from remedies. They also point to the difficulties associated with assessing the welfare effects of an intervention, difficulties that are exacerbated in a world in which some - but not all - consumers are characterised by bounded rationality and/or non-standard preferences.

In Chapter 8, Amelia Fletcher discusses an emergent literature, one which takes the basic tenets and mathematical modelling approach of game theory but then combines this with alternative assumptions on decision-making in order to examine how the analysis is changed. The author identifies three strands in this literature: the first strand treats switching and search costs as the product of behavioural biases with firms able to influence these costs; the second introduces behavioural biases into models of asymmetric information; and the third focuses on behavioural biases that lead consumers to mis-estimate their own demand. The author points to important insights being generated by the new analyses, in particular, around the ways in which firms will tend to adopt their strategies to exploit consumers’ behavioural biases. In considering the implications for competition and consumer policy, one interesting result is that more competition will not necessarily solve the issues arising and, indeed, increasing the level of competition can actually make things worse. In conclusion, the author observes that there is an easier fit between the emergent behavioural economics on the one hand and consumer law and its enforcement on the other compared to an earlier era in which the focus was on hyper-rational consumers. On these grounds, she anticipates a future in which greater use is made of behavioural economics in the design of competition and consumer policy.
Anchoring/anchors. Judgement and decision-making can be unduly influenced by a piece of information that is conveniently to hand and that comes to act as an arbitrary reference point or anchor. Experiments reveal that anchors can be derived from such random cues as the result of spinning a roulette wheel, or a person’s telephone or social security number.

See 8.4, Box 8.3, Box 8.4.

Availability heuristic. This refers to the tendency to assess the probability of an event occurring based on the ease with which instances of that event can be brought to mind. The individual applying this heuristic disproportionately weights salient, memorable or vivid evidence over objectively better quality but less striking evidence, leading to availability bias. For example, an individual whose neighbour has recently been burgled may believe the chance of being burgled is higher than crime statistics reveal to be the case. See also the representativeness heuristic below.

See Box 7.1, Box 7.3.

Bandwagon effect. See herd behaviour below.

Bayesian updating. Under rational choice theory, it is assumed that individuals will behave as if drawing on probability theory in formulating their beliefs, in particular, about the likelihood of an event occurring (say, winning the lottery).

See Box 3.1.

Behavioural remedies. This is the class of remedies that is focused on altering the behaviour of market actors in order to make consumers better off.

See 1.6, Ch.6, Ch.7.

Bounded rationality. The boundedly rational individual is one who is seeking to do the best that they can for themselves (they are ‘optimising’) but, in contrast to the rational individual, the cognitive skills, attention and/or willpower that they bring to the task are limited. This is not to say that the world is populated by individuals who are either always rational or always boundedly rational, since the same individual may act rationally in one decision-making scenario but be only boundedly rational in another scenario.

See 1.2.

Certainty effect. In choosing between options, many individuals have a preference for an outcome that is sure to happen, even where the monetary value of this outcome is less than that of an uncertain outcome. The certainty effect captures the idea that such individuals over-weight certain outcomes relative to outcomes with probabilities attached. See also Prospect theory below.

See 4.4.

Endowment effect. Under this effect, the individual values a good more if they already hold it than if they do not. In essence, the endowment is treated as a reference point (see under anchoring above) with undue importance attached to it. The endowment effect can also be understood as a preference for the current situation unless the incentive to change is particularly compelling, leading to status quo bias (see below). This may account for the consumer inertia observed in some markets, that is, a reluctance to switch from the existing supplier of a good or service.

See 7.6.
**Framing.** The way in which a problem is framed, or presented, can exert a powerful influence on judgement and decision-making. For example, it has been found that when events are framed positively, they tend to be chosen over the same events framed negatively.

See 1.2, Box 1.1, 7.6, 8.4, 8.5.

**Herd behaviour.** It has been observed that, when information is imperfect, many people can converge on the same choice of action as a result of copying the behaviour of others. Herding is deemed to be non-rational when no particular logic is deployed, resulting in the bandwagon effect. But herding can be rational if an individual believes the person or people whose behaviour they are copying is/are better informed than they are. See also information cascade below.

See Box 1.3, 3.2, Box 3.3.

**Heuristics and biases.** In order to render complex problems more manageable, the boundedly rational individual is understood to draw on a common repertoire of decision heuristics (or procedural rules-of-thumb). These may be deployed to simplify matters of judgement, that is, the evaluation of options (including the estimation of probabilities), and/or matters of choice, that is, the task of choosing between options. Decision heuristics can appear intuitively reasonable to the optimising individual; but they can also introduce systematic biases to the calculus and, as a consequence, they can lead to outcomes that are inferior compared to those that would be realised if rationality was unbounded.

See 1.2.

**Hot state.** Poor outcomes are often associated with the inability of individuals to keep their emotions in check when undertaking transactions, that is, when they respond in a hot state (or affectively) rather than rationally to decision-making, such as being moved by excitement, fear or impulse. See also self-control below.

See 6.4, 7.4

**Hyperbolic discounting.** This term refers to changes in preferences over time such that immediate rewards are seen as disproportionately more attractive. Where this is the case, preferences are described as being time-inconsistent. The source of such behaviour is seen to lie with limited willpower or self-control (see below).

See 7.4, Box 7.3, 8.4

**Inattention.** This term refers to the tendency of individuals to restrict their attention to a subset of the information or options available to them. Note that it can be rational to ignore information: under the assumption that the rational individual will give their attention to information up to the point at which the cost of attention equals the expected benefit of that attention, then some information may be rationally ignored. However, boundedly rational individuals may ignore or fail to give adequate attention to some information, such as the ‘small print’ attached to some transactions, leading them to poor outcomes. For policy-making purposes, it can be important to distinguish between rational inattention and inattention that is the product of bounded rationality.

See 5.3, Box 6.1, Box 7.3.

**Information cascade.** This is a form of herd behaviour (see above). It occurs when an individual imitates the choice behaviour of predecessors even if the little information the individual already holds points to a different choice.

See Box 3.1.
**Leptokurtosis.** This term refers to events or probability distributions characterised by very many small changes but some huge changes. Thus, compared to the normal distribution, a leptokurtic distribution has a more acute peak around the mean and ‘fatter tails’.

See Box 7.3.

**Non-standard preferences.** Under rational choice theory (see below), preferences are assumed to be ‘well-behaved’, that is, complete, ordered and consistent over time. However, surveys and experiments reveal a variety of non-standard preferences: preferences can change over time (see hyperbolic discounting above); they can have a social component, as when individuals have a preference for fairness to others (social preferences); they can be dependent upon a reference point (see anchoring and endowment effect above); and they can be incomplete or unstable.

See 1.2, Box 1.2, 3.4, Box 7.3, 8.4.

**Nudging.** Nudging refers to a behavioural remedy that is grounded in the observation that biased decision-making can lead to outcomes that are not in an individual’s best interests. It involves persuading (rather than telling) individuals to change their behaviour through a variety of prompts that change the intuition people bring to bear on decision-making. A classic example is the redesign of a refectory – placing fatty foods to the rear of the display where they remain available but are more difficult to access – with a view to encouraging healthier eating habits. See also weak/soft paternalism below.

See Box 3.2, 5.3, Box 7.1.

**Optimism/pessimism bias.** This bias is produced when an individual under/over-estimates the likelihood of adverse events occurring. Optimism bias can lead consumers to believe that potentially harmful products are substantially safer than they actually are, leading them to voluntarily expose themselves to greater risk than would be the case if they had more accurately assessed the products at issue.

See 2.1, 7.4, 7.5, Box 7.1.

**Over-confidence bias.** This bias refers to a tendency of individuals to predict outcomes too positively and/or to over-estimate their decision-making skills.

See 8.4.

**Prospect theory.** This is a theory proposed by Kahneman and Tversky in 1979¹ to address the descriptive failures of rational choice theory (see below). Central propositions are that: individuals tend not to treat probabilities with the rigorous mathematical logic of probability theory; they tend to prefer outcomes that are certain over those with probabilities attached (see the certainty effect above); preferences are often dependent on a reference point (see below); greater weight tends to be attached to losses than to equivalent size gains (see the reflection effect below); and the way in which a problem is framed (see above) can exert an influence on judgement and decision-making.

See Box 1.1, 4.4.

**Rational choice theory.** This is the body of theory which supplies abstract models of how individuals are expected to behave when their cognitive abilities are unconstrained and preferences are ‘well-behaved’ (see non-standard preferences above). It includes expected utility theory and its extension in subjective expected utility theory as well as the standard theory of choice under uncertainty.

See 1.1.

Reference points/reference-dependent preferences. See anchoring, endowment effect and prospect theory above.

See 8.4.

Reflection effect. This refers to one of prospect theory’s (see above) central propositions according to which the individual evaluates gains and losses differently, with greater weight assigned to losses than to equivalent size gains, relative to the present position or to expectations. Where this is the case, people will tend to be more averse to losses than they are attracted to equal size gains when faced with risky prospects (loss aversion).

See 4.4, 8.4.

Regret theory. This is a theory proposed by Loomes and Sugden in 1982 to address the descriptive failures of rational choice theory. Its central proposition is that many individuals are motivated in decision-making to avoid feelings of regret and to experience feelings of rejoicing once outcomes are known.

See 4.4.

Representativeness heuristic. This is related to the availability heuristic (see above) and is based on the idea that, as a result of limitations on the working memory, only some decision-relevant information comes to mind. The representativeness heuristic can come into play when a decision problem has multiple dimensions, leading the boundedly rational individual to focus on just one dimension which is treated as ‘representative’ of other dimensions.

See 8.3.

Self-control problems. It has been observed that boundedly rational individuals can find it difficult to keep their emotions in check when making purchasing decisions; in particular, they may experience self-control problems (or weakness of will), potentially leading to suboptimal outcomes. See also hyperbolic discounting above.

See 8.4.

Spurious complexity, confusopoly, obfuscation, shrouding. Behavioural biases can be introduced or exacerbated by firms either inadvertently, or strategically where the aim is to exploit consumer fallibilities to enhance profits. One of the ways in which the latter can be accomplished is by making key decision-relevant information difficult to process, for example, by introducing unnecessary complexity to tariffs. The practice makes it difficult for consumers to compare products and identify the best deals.

See 1.4, Box 1.4, Ch.2, 4.3, 5.1, 6.2, 8.2, Box 8.1, 8.5.

Status quo bias. Individuals have been found to have a tendency to treat their current situation, or endowment of assets, with undue or disproportionate importance. This leads to a preference for the current situation (or default option) unless the incentive to change is compelling. Such a status quo bias may account for the consumer inertia to be found in some markets. See endowment effect above.

See 1.2, 5.3, 8.2, 8.3.

---

**Water-cooler effect.** This effect captures the observation that people often gather around the water cooler at work, or at other communal meeting places (for example, the pub), to discuss goods or services they have all consumed, such as television programmes, films and sporting events. Such individuals are understood to derive external benefits from being able to join in the conversation in addition to the utility gained at the time of consumption.

See 3.2

**Weak/soft paternalism.** This term refers to a family of approaches to policy in the face of the bounded rationality of some consumers; these include: libertarian-paternalism (or nudging – see above), asymmetric paternalism and debiasing through law. At the core of these approaches is the idea that, through relatively modest interventions, the behaviour of boundedly rational individuals can be brought into closer conformity with the standard model of rationality. Since such interventions do not involve restrictions on choice, all three approaches claim to create benefits for boundedly rational individuals while imposing little or no harm on rational individuals.

See 6.4, Box 7.1.
Part 1

An Introduction to Behavioural Economics and its Implications for Competition Policy
Chapter 1

Consumer Behaviour and Market Competition

Enrique Fatas and Bruce Lyons
Behavioural Economics in Competition and Consumer Policy

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Chapter 1
Consumer Behaviour and Market Competition
Enrique Fatas and Bruce Lyons

This chapter provides an introduction to the implications of behavioural economics for competition and consumer policy. We discuss the ways in which consumer decision-making may not be fully rational and how firms can exploit such consumers. We provide examples of how this can distort markets. We conclude that competition and consumer policy has a role in correcting such distortions but that it needs very careful design because some interventions can do more harm than good.

“Interventions change not only the behaviour of consumers, but also the behaviour of firms. … this may result in a worse outcome than without any intervention at all.”

1.1 Introduction

Competition arises when firms fight for customers by offering them a better deal in terms of price, quality, range, reliability or associated services. If consumers have useful information on these alternative offers, and if they act rationally on this information, then only the firms making the best offers will thrive. The reward for consumers is that it gives them products they want and at prices that reflect the resource cost of providing them.

However, markets cannot work effectively unless consumers respond to market signals. They are as much a part of the competitive process as are the firms on which we normally focus when examining competition policy. For example, if consumers persist in buying a higher priced or lower quality product when another firm makes a better offer, then the market does not provide the incentive for firms to cut prices and improve quality. Behavioural economics examines consumer decisions with an open mind about apparently irrational behaviour. It provides a more nuanced approach to consumer behaviour than is found in standard models of competition.

Economic theory has a highly developed model of how ‘rational’ consumers are expected to behave. For example, rational consumers are supposed to deal with risky decisions by weighting different possible outcomes with their probability of occurrence, they are assumed to ignore information that is irrelevant to their payoffs, and they are expected take a consistent approach to discounting over time. These assumptions provide an elegant way of understanding consumer demand in the absence of complete certainty (that is, most of the time). Economists call this expected utility theory – it predicts how ‘rational’ consumers should behave. Unfortunately, people often make decisions that are not so ‘rational’.
Of course, no one can be expected to be precisely rational all of the time, so we should always expect some ‘noise’ in rational decision making. However, by observing anomalous actual decisions and testing more precisely for inconsistent choices using the experimental approach in the laboratory, economists have identified some systematic biases relative to the rational model of consumer behaviour.

1.2 Systematic biases in decision making

Over the years, it has been possible to understand the nature of a number of these biases – or deviations from rational decision making – which now underpin many of the propositions of what has become known as ‘behavioural economics’. For example, people have been found to have:

**Cognitive limitations** (‘bounded rationality’) – we cannot collect and process all the available information potentially relevant to making a rational decision

**Consequent behaviour:**
- People simplify decision making by adopting simple heuristics (or procedural rules-of-thumb); for example, simplifying the problem by focusing only on price and style (ignoring technical information).
- People may rely on the first piece of relevant information they receive; for example, the first in a list on a comparison website.
- People are influenced by the way a choice is presented to them (framing) even when the alternative presentations are informationally equivalent; for example, preferring A over B based on the quality and prices of the goods, but reversing this preference if B’s price is presented as ‘50% off’.

**Biased beliefs** – we often act as if we distort objective information on probabilities

**Consequent behaviour:**
- People tend to place a greater weight on both very low probability events and on certainty; for example, buying both lottery tickets and expensive insurance that covers 100% replacement.
- See Box 1.1.

**Non-standard preferences with respect to:**

**Time** – unduly favouring immediate consumption.

**Status quo** – preferring to retain A when offered a change to B, even though the individual would prefer B over A if starting from another status quo.

**Other people** – taking other people’s welfare positively into account in some circumstances and being spiteful in others.

**Fairness** – consumers may refuse to purchase if they believe the offer is unfair. For example, they may be content to purchase a snow shovel for £20 that they know will be on sale at a discounted price of £10 in the summer; but they may not make the purchase if they saw the shovel offered at £10 last week but with a new price tag of £20 after a heavy snowfall.

**Unstable or incoherent preferences** – preferences may change over time in a way that appears inconsistent or incoherent to an outside observer. See Box 1.2
Bias in assessing risk  

Box 1.1

Suppose you are asked to choose between two treatments for a dangerous disease that afflicts 300 people. Consider Frame 1 and decide your answer, then come back to Frame 2 once you have read this chapter (and without reminding yourself of your Frame 1 answer).

Frame 1. Treatment A will save exactly 100 lives for sure. Treatment B has 1/3 probability of saving 300 lives and 2/3 probability of saving none.

Frame 2. Treatment A will result in 200 deaths for sure. Treatment B has 1/3 probability that no one will die and 2/3 probability that 300 die.

Many people choose A in Frame 1 and B in Frame 2, but the consequences of each treatment are identical in each frame. Treatment A results in exactly 200 deaths and 100 lives saved. Treatment B has a 1/3 chance of no deaths and a 2/3 chance of no one saved. The only difference between Frames 1 and 2 is the way in which the information is presented (‘framed’).

Taking exercise: a case of inconsistent preferences?  

Box 1.2

Regular physical exercise is a good habit with undeniable physical and psychological benefits. However, people typically fail to abandon sedentary habits. Some barriers to physical activity can be understood using a standard economic logic. Someone may rationally prefer not to go to the gym if the apparent benefits do not compensate the costs, including the emotional ones (for example, the embarrassment of exercising while out of shape). However, a sedentary life may alternatively be a consequence of inconsistent preferences. From a rational choice perspective, the issue is not whether jogging after work is right or wrong, but whether staying at home watching an insipid TV show is at odds with the individual’s preferences both before and after the show is broadcast. The inconsistency arises when the individual prefers A (= exercise after work) in the morning, prefers B (= on the sofa with the TV remote) at the end of the day and prefers A again when they go to bed. This illustrates how preferences can change even within the same day. It also raises some tricky issues that a policy maker needs to consider. Which set of preferences should we take as ‘correct’ or ‘appropriate’? Would such an individual be better off if they could commit in the morning to taking exercise in the afternoon? Does this justify a policy intervention that would incentivise or even force the individual to take exercise after work?

See also Box 8.5.
1.3 Behavioural consumers and behavioural firms

Who is subject to such behaviour? Experiments have shown that these psychological biases are persistent over time and common across inexperienced and experienced consumers. Even when boundedly rational consumers have coherent preferences, they are limited in their ability to satisfy them. By failing to identify their truly preferred option, consumers might repeatedly make significant losses, both in terms of the price they pay for a product and in terms of buying products they don’t actually prefer. This book provides many examples of behavioural limitations to consumer decision making.

The evidence about the existence of behavioural biases in firms is less appealing. Economists traditionally expect firms to maximise profits, preserved from systematic mistakes by market competition. Firms failing to identify their best option will be less successful in the market and replaced by those firms or management teams that do. Firms also gain great experience in making particular decisions, such as pricing, repeatedly in a setting they learn to understand (the particular market). Further profit maximisation discipline comes from collective and vigorously debated decision-making within a firm.

Nevertheless, it is not always the case that evolutionary forces will lead firms to maximise profits in a world of imperfect competition, or that the economic environment is sufficiently stable for optimal prices to be chosen, or that collective decisions are always optimal. For example, even though shareholders wish to maximise profits, they must delegate decision-making to senior management. In oligopolistic competition, there may be an incentive to delegate to managers who put a greater weight on revenues (that is, not just profit targets) if this induces rivals to produce less for the market – the increased market share can outweigh a small decline in the profit margin. Furthermore, managers may have their own preferences that influence decisions when their behaviour cannot be perfectly monitored by shareholders and incentive schemes are poorly designed. The recent problems with corporate governance of banks provide a powerful illustration. A behavioural approach to firms’ decision making should not be dismissed lightly (see Box 1.3).

Nevertheless, our understanding of behavioural economics is most advanced in understanding how rational (profit-maximising) firms can exploit the behavioural quirks of consumers. An important finding is that the existence of competition is not always enough to guarantee an efficient market.

### Herd behaviour and asset price bubbles

An example of the existence of behavioural traits in firms is the systematic presence of ‘bubbles’ in some asset markets. During a bubble, market prices are above the fundamental value of the assets (for example, houses or shares). When the bubble bursts, many firms suffer immense losses and go bankrupt. While some economists try to explain bubbles in a rational setting, experiments suggest there may be deeper behavioural foundations (for example, herd behaviour). The behaviour that results in bubbles can be reproduced in the laboratory, even when the environment is predictable (for example, when fundamental values are constant) and traders are experienced (for example, brokers in real stock exchange markets).
1.4 How firms can exploit behavioural traits in consumers

With fully rational consumers, it is usually advantageous for firms to provide potential customers with all the relevant information on product specifications and price. However, with behavioural consumers, firms may find advantage in obscuring information so that consumers pay a higher price or buy a lower quality than would be best for them. Consumers may be provided with too little information to make an appropriate comparison with alternatives. Perhaps paradoxically, the same effect can be achieved by providing too much irrelevant information such that the decision-relevant data is buried in the small print and so ignored. Firms can also adapt their pricing strategies to take account of the fact that their potential customer base may include both rational and behavioural consumers.

Boxes 1.4 and 1.5 give some examples, and other chapters in this book provide a deeper analysis of these and related issues. They include the introduction of complexity by firms to exploit consumers (Chapter 2), self-control on decisions about consumption (Chapter 7), and search and switching between suppliers in different markets (Chapters 4 and 5). If these and other behavioural traits are important features of the market, it means that we cannot rely exclusively on ensuring supply side competition (that is, the firms) to make markets work well. We may also have to act on the demand side (that is, on consumer behaviour).

**Box 1.4: Price obfuscation**

Even though most consumers compare prices, they do not necessarily pay attention to the way prices are presented to them. The only information that should be relevant to customers is the final price they have to pay. However, that is not always obvious because firms sometimes present information about the final amount charged in ‘drips’, with insurance, credit card fees, baggage charges, etc. added on only after the emotional commitment to a purchase has been made. Similarly, people can be caught by a time-limited offer that runs out just before purchasing, but they can no longer be bothered to search for a better offer.

Prices can also be presented in a way that makes them appear particularly attractive. Consumers may believe a ‘half price’ offer must be good value even though the previous price was twice as much as the price at which it could have been purchased elsewhere. ‘Buy one get one free’ also sounds like a great deal, but it may not be if the price of one unit is inflated or the second unit would not have been purchased otherwise.

Retailers are experts on how consumers respond to these alternative pricing strategies, and can sometimes use them to benefit at the expense of consumers. This should not be taken to imply that such offers are always bad for consumers. Genuine price cuts are an essential part of the competitive process. Behavioural economics provides insight into how various price obfuscations can be used strategically, but individual examples need careful appraisal before deducing that a pricing strategy is anticompetitive in a particular market.

Price complexity is discussed in more detail in Chapter 2. See also Box 8.4 for an example of the action taken by an authority in response to drip pricing.
In a traditional competitive market, we might not expect differences to persist in the prices charged by different retailers for a particular branded product. Nevertheless, persistent price dispersion is widely observed. There may be a perfectly rational explanation. For example, some shops can charge a premium for being more convenient to their customers, and others may provide helpful advice or an attractive environment in which to shop. Shopping costs mean grocery shoppers may be more interested in the cost of their overall basket of goods than they are in the prices of individual items. Search costs mean that rational consumers will not take too much time and effort searching for the lowest price for low cost items, and retailers can use sales to attract customers with low search costs while most of the time charging higher prices for high search cost customers.

Although this means we should not automatically associate observed price dispersion with behavioural consumers, there are alternative behavioural explanations that might be more relevant in some markets. For example, some consumers may simply be uninterested in price when shopping. Even though most are rational, the existence of some irrational customers provides an incentive for some firms to charge a high price, at least some of the time, even though they might only sell to irrational customers who find their shop first.

It was once thought that the rise of the internet and price comparison sites would remove most of the rational reasons for price dispersion and so increase competition. This has not happened. Exactly the same brand can be purchased at different prices from different web retailers and such differences are persistent. Indeed, the very existence of web comparison sites rests on persistent price dispersion! Baye and Morgan (2004) provide an explanation for this based on sellers who are satisfied with profits that are ‘close enough’ to the maximum (known as an equilibrium). They argue that such firms have an incentive to vary their prices regularly and randomly. They suggest that this explanation is consistent with actual evidence of consumer electronics price dispersion on a popular shopping site, and back up their findings by conducting a controlled experiment.


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**Explaining price dispersion across sellers of identical goods**

Box 1.5

In a traditional competitive market, we might not expect differences to persist in the prices charged by different retailers for a particular branded product. Nevertheless, persistent price dispersion is widely observed. There may be a perfectly rational explanation. For example, some shops can charge a premium for being more convenient to their customers, and others may provide helpful advice or an attractive environment in which to shop. Shopping costs mean grocery shoppers may be more interested in the cost of their overall basket of goods than they are in the prices of individual items. Search costs mean that rational consumers will not take too much time and effort searching for the lowest price for low cost items, and retailers can use sales to attract customers with low search costs while most of the time charging higher prices for high search cost customers.

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1.5 When does behavioural economics provide a new justification to intervene using competition or consumer policy?

Suppose we can identify a behavioural bias that is being exploited by firms (either deliberately or even unintentionally) such that the market does not appear to be working well for consumers. Should an authority intervene in the market? And if so, what remedies would be appropriate? These are the crucial questions for policy-makers.

An important distinction should be made between: (i) consumers who are being misled by firms or whose search and switching costs are being raised by business strategies, and (ii) consumers who do not have coherent preferences and seem to be making bad decisions. It is fairly uncontroversial to expect an effective policy to address the former, and we pick this up in Section 1.6. However, (ii) is more problematic as it should not be a regulator’s decision to substitute their own preferences for choices made by an individual, even if those preferences appear incoherent. Unless the behavioural bias has its roots in a consumer information problem, intervention would take an unelected regulator into ethically dangerous territory if they tried to manipulate consumers into acting according to preferences the regulator believes consumers should have (see Chapter 7 for further discussion of this and related issues).

1.6 What remedies are appropriate for an intervention founded on behavioural economics?

Suppose we can identify a market where customers are prevented from choosing their preferred product because it is difficult to obtain and process the right information. Once such a market failure has been identified, we need to consider whether it can be corrected without creating a new distortion. The best economic advice for intervention, as always, is to act as close to the source of the problem as possible. For example, suppose information is being presented in a way that obscures the key decision-relevant facts, typically including the final price that has to be paid. An appropriate intervention would be for firms to be required to highlight such information up-front in a clear and transparent manner. The aim is to help consumers act more closely in line with the rational ideal that makes a competitive market attractive – consumers get the product they want and at a price that reflects cost. Remedies that require clearer provision of information to final consumers may increase costs a little, but they are unlikely to have additional consequences that are harmful. Greater care is needed for other remedies which directly interfere with consumer choice.

Remedies designed to change consumer behaviour are increasingly used by the UK competition authorities. Examples include:

**Provision of transparent price information to facilitate price comparisons:**

- Some airlines were adding additional payment card charges to headline prices for flights, even when cards were necessary to make a purchase. Consumers only discovered this late in the booking process so it was difficult to compare prices. The OFT used consumer protection legislation to require airlines to include debit card charges in all headline prices, both on the airline’s website and in its advertising. Additional credit card fees are permitted as long as they are presented clearly and transparently.1 It is now easier for consumers to compare prices before getting committed to a particular flight. (See Box 8.4 for further discussion of this case.)

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1 OFT Press release 58/12 (5 July 2012): ‘Airlines to scrap debit card surcharges following OFT enforcement action’
- An interest rate can be calculated in many alternative ways. Lenders are required to present interest rates for consumer loans in a standard form known as APR (annual percentage rate). It is arguable whether APR is the best way for a consumer to understand the cost of a loan, but it does provide a standard by which the offers from different lenders can be sensibly compared, and so facilitates competition.

Restrictions on marketing complementary products, such as insurance, at the ‘point of sale’:

- Payment protection insurance (PPI) is mostly sold at the same time as a consumer takes out a loan (‘point of sale’). Customers could buy PPI from a separate provider but they almost never shop around because they are either unaware that it is possible or worried about a gap in coverage or simply cannot be bothered. This confers a near monopoly advantage at the point of sale, and the absence of competitive pressure allowed very high prices to persist. In 2006, just £14 out of every £100 in premiums was paid out in claims. For perspective, £78 was paid out in motor insurance claims per £100 premiums in the same year. Following its market investigation, the Competition Commission (CC) found competition was restricted by point of sale marketing and other practices that make price comparisons and switching difficult. It introduced a remedy package including: a ban on the sale of PPI during the sale of the credit product and for seven days afterwards, personal PPI quotes, and measures to make sure that improved information is available to consumers to make it easier for them to search for and compare alternative policies. The ban on point of sale marketing was particularly controversial as it will harm some customers who would have preferred to buy immediately and some may not get round to buying at all. The balancing judgement is that it will have encouraged others to buy a more appropriate product or to realise PPI would be an unnecessary expense given their personal circumstances.

- Some people like to buy extended warranties (EW) on their electrical goods which typically are sold with only a one-year guarantee. Two-thirds of EWs are sold at the point of sale and only a quarter of consumers shop around. In June 2012, the OFT was ready to refer this market to a full CC investigation when the three leading retailers (Dixons, Comet and Argos) offered a set of behavioural remedies to address the OFT’s concern that consumers were not sufficiently well informed to make a sensible choice. These remedies included commitments to maintain and publicise an EW price comparison website, and to provide accessible in-store information on alternative providers.


3 This is a large market with around 12 million active policies in any one year paying premiums of c£4bn pa. It has subsequently grown into a huge mis-selling scandal that has cost the largest UK banks £14bn in compensation (Guardian on-line, 4th March 2013). It has further, if indirectly, led to many of us incurring considerable irritation costs as claims firms have bombarded us with text messages and robotic phone calls.

Competition policy interventions based on behavioural economics need to be very carefully thought through if they are not to do more harm than good. For example:

**Requirement to put consumers on the best available tariff:**

- Energy companies offer an often confusing array of tariffs to their customers, many of whom do not necessarily choose the one that would minimise their energy bill. Faced with public disquiet about rising energy prices in October 2012, Prime Minister David Cameron highlighted the lack of consumer tariff switching and said that he would legislate to compel energy firms to give the lowest tariff to their customers. This may superficially sound like a good idea but it is not. The reason is that firms would adapt their behaviour in response. In particular, there would effectively be a single tariff for each consumption level and it would become very expensive for firms to offer tariffs that might attract new customers from rival suppliers. Rather than cutting the price to everyone, they would cut price to no-one and prices would drift up rather than down.\(^5\) Chapter 5 provides further discussion of this and related issues.

This last case demonstrates that the task of designing the appropriate remedy is not always straightforward. Chapters 6 and 7 look further at the remedies available to an authority, and highlight some of the difficulties associated with these.

### 1.7 Initial conclusions

Consumers must switch between alternative suppliers in response to prices if markets are to result in the best possible outcome. Certain behavioural traits which have been identified as systematic biases reduce consumer sensitivity to better price or quality offers. Furthermore, behavioural consumers can sometimes be exploited by firms which, for example, develop strategies to obscure prices. Such strategies have implications even for those consumers who are fully rational. It would be dangerous ethical territory for regulators to substitute their own perceptions of what a rational consumer should want to choose. A positive role for competition and consumer policy is to help consumers act according to their own true preferences.

However, this form of intervention is not straightforward even when the consumer bias has been clearly identified. Interventions change not only the behaviour of consumers, but also the behaviour of firms. As the ‘best available tariff’ example shows, this may result in a worse outcome than without any intervention at all.

### Further reading


\(^5\) See CCP blog by Catherine Waddams: http://competitionpolicy.wordpress.com/2012/10/19/the-likely-effects-of-compelling-energy-firms-to-give-customers-the-lowest-tariff/
Chapter 2

Making Sense of Complex Choice Situations

Judith Mehta and Robert Sugden
Chapter 2
Making Sense of Complex Choice Situations
Judith Mehta and Robert Sugden

In this chapter, we consider the impact on the market of the price complexity introduced by some firms: how are consumers affected? what is their response? and how does price complexity affect efficiency? We also review the concept of choice overload and ask whether it describes a genuine phenomenon.

“The available evidence suggests that choice overload is a genuine phenomenon of certain types of choice environment, yet it does not support the extravagant rhetoric of some of the literature on the topic.”

2.1 Price complexity

Recently, industrial economists have become very interested in the concept variously known as ‘spurious complexity’, ‘obfuscation’, ‘shrouding’ and ‘confusopoly’. The idea is that firms sometimes price their products, or present information about their prices, in unnecessarily complex ways, and that this complexity obstructs competition and exploits consumers.

Current interest in this topic is partly a result of the growth of behavioural economics, with its emphasis on how individuals’ economic behaviour diverges from the predictions of traditional rational-choice models. But it also reflects the increasing salience of the topic in public debate as people come to terms with the effects of the information revolution and the explosion of internet commerce. These innovations have made it much easier for firms to use complex pricing schemes.

In many cases, these innovations have led to greater economic efficiency in pricing. For example, it is now possible for airlines to vary the prices of seats on individual flights minute by minute so as to match demand to supply, reducing the waste of empty seats. Products that were previously sold as single-price packages can now be more easily broken down into separately-priced components, allowing purchases to be tailored to consumers’ individual requirements. As the example of airline prices also illustrates, price discrimination has been made easier. Minute-by-minute price flexibility allows higher prices to be charged to passengers who do not want to commit their travel plans far in advance and who are not willing to substitute a cheap destination for an expensive one. But this, too, can be seen as efficiency-enhancing, since price discrimination helps to ensure that goods are supplied whenever the total benefits to consumers exceed the cost of production.
However, there is a downside. The same changes in technology give sellers more control over the price information that consumers receive. For example, the designer of a website has much more control over the process by which consumers access information than the manager of a department store has. This gives sellers more opportunities to misrepresent prices and to frustrate price comparisons. And if consumers’ judgements are subject to systematic biases, firms’ offers may be tailored to those biases rather than to ‘genuine’ preferences.¹

1 These pricing strategies are described in more detail in Office of Fair Trading, 2011, ‘Consumer behavioural biases in competition: a survey’, Report to Office of Fair Trading by London Economics in association with Steffen Huck and Jidong Zhou. This report summarises the academic literature on confusopoly.

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Adding to complexity: product tying and product bundling

Box 2.1

We have seen that behavioural biases are often a product of the characteristics of consumers in interaction with the characteristics (or practices) of firms. Consider two practices adopted by firms that can add to the complexity of decision-making faced by consumers.

Many of the leading banks in the European Member States practise product tying, which occurs when consumers are forced to buy one or more extra products in order to secure their desired product. To get access to a loan or mortgage, for example, may require consumers to sign up for a current account with the same supplier. This practice exacerbates the difficulty for consumers of comparing suppliers and identifying whether or not a switch would be advantageous.

Banks may also make use of the related practice of product bundling, by wrapping up current accounts, pension or travel insurance and mortgage or other loans into one package. While bundled products are often separately available and there is no compulsion to buy them (which distinguishes bundling from tying), again, the effect is to make it difficult to compare prices.

In financial markets, tying and bundling can be expected to interact with consumers’ cognitive skills, the extent of their financial sophistication, and demographic factors such as age which can impact on consumers’ analytic skills. Indeed, decision-making can be perceived to be so complex that some consumers may simply abdicate from decision-making altogether or, if they do make a decision, it may be the ‘wrong’ one, leading to a softening of competition. While there is evidence of suboptimal decision-making in financial markets, we may expect difficulties to arise for consumers in any market in which firms practise tying or bundling (for example, telecommunications markets – see §4.3). Only investigation of such markets on a case-by-case basis will determine the extent of the problem and whether there is a need for intervention.

It is well known that search costs – the costs that consumers have to incur to gain information about the offers made by individual suppliers – tend to reduce the effectiveness of price competition and so lead to higher prices. Some forms of price complexity can be viewed as anti-competitive strategies designed to increase consumers’ search costs. Drip pricing is the practice of advertising a low headline price to attract consumers to a firm’s store or website. As the consumer invests time in gaining more information about the firm’s offer or in initiating the process of placing an order, additional and unexpected price components (such as taxes, fees for the use of payment cards, and delivery charges) are added. The more firms there are in a market that use this strategy, the higher is the cost in time and effort of finding the lowest final prices. So, despite the unpleasant surprises of the later information, the consumer may do better (or may think she will do better) by accepting the offer than by looking elsewhere. Baiting works in a similar way: a low headline price is later revealed to be available only ‘while stocks last’ or subject to conditions that are almost impossible to meet. Other strategies use unnecessary price complexity to make it harder for mathematically-challenged or time-constrained consumers to compare different firms’ final prices. Price partitioning is the practice of quoting separate prices for component parts of an indivisible offer (for example, quoting tax or delivery charges separately). Complex offers (such as ‘three for the price of two’) are another way of obstructing price comparisons.

3 See Box 1.4 for further discussion of drip pricing, and see Box 8.4 for an example of the action taken in response to this pricing strategy.
4 See §6.4 for discussion of the effectiveness of the ‘rain check’ as a remedy to address baiting strategies.
Another family of strategies exploits consumers’ inaccurate forecasts of their own demands, or their mistaken beliefs about the likelihood of particular contingencies. Firms that offer service contracts (for example, for current account banking, credit cards or mobile phone use) may load their charges disproportionately onto contingencies that consumers under-predict (such as unarranged overdrafts) or even do not think about at all (such as the re-issue of a lost or forgotten boarding pass at an airport, for which Ryanair currently and controversially charges £60). Such strategies are made easier by the prevalence of optimism bias – that is, the tendency to underestimate the likelihood of adverse events occurring. Multi-part tariffs can be designed to offer low total charges for consumers who forecast their demand correctly, but impose large penalties on those who under- or over-predict how much they will use a service. One common feature of these strategies is that sophisticated consumers, who take the bait but keep away from the hook, benefit from the exploitation of their naïve counterparts. This raises interesting questions about whether it is appropriate to aggregate across consumers when assessing the harm resulting from confusopoly.

However, markets have some self-regulating tendencies which work against these anti-competitive and exploitative practices. The most obvious of these is reputation. If consumers recognise the search costs they incur when dealing with complex pricing, they may choose to patronise firms that offer less confusing tariffs and more easily navigable websites. This gives incentives for firms to build reputations for transparent pricing. Information-sharing websites for consumers, such as tripadvisor.com, can make even one-off transactions subject to the effects of reputation. When physical and online supermarkets act as platforms for the sale of other firms’ products, they are effectively selling search opportunities to consumers, and their reputations depend on consumers’ perceptions of how easily they are able to find what they want. Thus, successful supermarket chains choose store layouts which, while no doubt including subtle nudges towards the more profitable lines, follow generally-understood conventions based on categorisations of product by type, price and quality. The example of supermarket layouts illustrates a further mechanism, which operates at the level of the market rather than the firm – the emergence of market-wide common standards for the presentation of price information, enforced by consumers’ desire to avoid having to make difficult comparisons (see Box 2.2).

**Common standards**

Box 2.2

Gaudeul and Sugden (2012) argue that firms’ offers are easier to compare when they are expressed in terms of *common standards* (for example, standard package sizes, standard units of measurement, common conventions about what is included in the basic price). Because of this, when consumers are drawing up shortlists before making final choices, they are more likely to include offers that are expressed in common standards. Thus, once common standards are established, firms that deviate from them are penalized by losing market share. The tendency to shortlist easily-comparable options is a known behavioural bias, but in this case it can also be rational. Precisely because common standards promote competition, they signal that goods that meet common standards are likely to offer good value for money, thereby reinforcing the tendency for consumers to favour common standards.


See 6.2 for further discussion of the incentives on firms to communicate effectively with consumers.
These inbuilt tendencies of markets can be strengthened by regulation. Regulators can require price information to be presented in standardised ways (for example, by requiring prices to be quoted inclusive of unavoidable taxes and ‘booking charges’, or by imposing a standard definition of the interest rate). Sellers might be required to provide information about the total cost of defined packages of complementary goods, representative of the purchases of typical consumers, in the same way that car manufacturers have to provide standardised information about fuel consumption. (For example, sellers of printers which use dedicated ink cartridges might be required to report the annual operating cost for a typical user.) Rules about ‘fair’ and ‘unfair’ add-ons can be imposed. Here, however, there are difficult balances to be struck. If suppliers were allowed to sell only ‘full-service’ packages, the emergence of valuable new business models, such as budget hotels and low-cost airlines, would be obstructed. If all add-ons were required to be priced on a cost-plus basis, legitimate forms of price discrimination would be prevented. (Think of the price premiums for higher-specification models of mass-market cars. These clearly exceed any cost-plus standard, but the practice is transparent and buyers know what they are paying for.) In a recent report on payment card surcharges by airlines, the Office of Fair Trading describes its rulings as ensuring that ‘headline price will be achievable for the majority of consumers and that any credit card charges will be clear and transparent’; its aim is to ‘put pressure on traders to reduce these charges to the competitive level’. This expresses the view that regulation should be directed at ensuring transparency in pricing, thereby empowering consumers to enforce competition between firms. There is, however, the potential for increased price transparency to bring with it undesirable side effects which we discuss in a later chapter (see Box 6.7)

5 www.oft.gov.uk/OFTwork/consumer-enforcement/consumer-enforcement-completed/card-surcharges/qandas/
2.2 Choice overload

Choice overload is said to occur when consumers face so many options that the quality of their decisions declines, or they feel dissatisfaction with their final choices, or their motivation is so undermined that they avoid choosing altogether. An extreme version of this claim has been popularised by Barry Schwartz (2004) in a book whose premise is that when the number of options becomes too large, ‘choice no longer liberates, but debilitates. It may even be said to tyrannize’ (p.2). Experimental psychologists who investigate choice overload sometimes suggest that their findings reveal a fundamental failure of the market system – that it provides too much choice (see Box 2.3). For example, Nicola Brown, Daniel Read and Barbara Summers (2003) interpret an experiment on choice overload as supporting the view that ‘The needs of consumers ... could be met by offering much less choice than there is. Yet the inherent attractiveness of choice, even when it is disconnected from any ultimate benefits, leads retailers to offer it and consumers to be lured to it’.7

The most-cited evidence of choice overload is a field experiment reported by Sheena Iyengar and Mark Lepper (2000). The experimenters set up a ‘tasting booth’ in an up-market American grocery store. Visitors to the booth were invited to sample from a range of high-quality jams and were given coupons giving a $1 discount against purchases from that range of jams at the store. The number of jams that could be sampled was sometimes six and sometimes twenty-four. The rate of visits to the booth was slightly higher when it had more jams, but the proportion of coupons redeemed was much higher when there were only six jams. Iyengar and Lepper interpret this and similar results as illustrating Schwartz’s idea of ‘the tyranny of choice’ and as showing that the provision of a wide range of choice ‘though initially appealing to choice-makers, may nonetheless undermine choosers’ subsequent satisfaction and motivation’ (p.1003).8

It is difficult to reconcile Iyengar and Lepper’s interpretation of behaviour with one of the most obvious trends in retail markets – the success of those retail business models that offer the widest ranges of choice (think of the success of Wal-Mart and Amazon, compared with the decline of neighbourhood groceries and high-street bookshops). The range of choice offered by a modern supermarket is far greater than that of the twenty-four jams of the experimenters’ tasting booth. If the demotivating effects of a wide range of choice reduces the propensity of customers to buy, how do retailers make profits by offering it? It should not be surprising that Iyengar and Lepper’s result has not proved robust to other experimenters’ attempts to replicate it.9 There is stronger evidence of choice overload in some situations that are interestingly different from the supermarket case.10 In the US, the most commonly available form of saving for retirement is the ‘401(k)’ plan. (Employees and employers contribute jointly to a savings plan that has tax relief.

The employee chooses how those savings should be distributed among a defined set of fund options, typically including money market funds, bonds and equities.) After other factors have been controlled for, increases in the number of fund options is associated with lower participation in 401(k) plans, and with more risk-averse portfolio choices by participants. Similar effects have been found in medical decision-making. From 2006, Medicare (the US health insurance plan for people over the age of 65) has offered subsidised insurance to cover expenditure on prescription drugs; as with 401(k) plans, individuals choose from a defined set of (typically, 40 or more) privately-supplied plans. Survey evidence suggests that slow enrollment in these plans was partly attributable to the large number of choices on offer. There is also evidence that patients’ preferences for making their own decisions between alternative medical treatments are negatively correlated with the severity of the illness, and are overestimated by people who are in good health.

Why are these decisions different from those made in supermarkets? One difference is the extent to which choosers know their own preferences. It is generally recognised in the choice overload literature (although sometimes overlooked in rhetorical florishes about the tyranny of choice) that overload does not occur when choice takes the form of preference matching – that is, scanning through a set of options to find the one that is best according to a pre-existing preference ranking. Thus, a supermarket shopper who has already decided that they want to buy a particular breakfast cereal is not demotivated by seeing other products on the shelves. One might expect this effect to extend to families of related products. For a shopper who knows the general features of breakfast cereals and who knows their tastes with respect to those features, it is not such a daunting task to choose one such product in a supermarket, even if some of the brands on display are unfamiliar to them. People are much less likely to know their own preferences over saving and insurance plans.

Another factor, also recognised in the literature, is that choice overload is less likely to occur if the set of options is organised into salient categories, that is, categories the chooser perceives as relevant. Such navigational aids are prominent in most retail markets; they are there because retailers need to attract customers (see the ‘Price complexity’ section in this chapter). In contrast, for reasons of experimental control, investigations of choice overload often strip out these aids. When (as in the examples from US social insurance) publicly-financed programmes allow individuals to choose between privately-supplied products, the presentation of choice options has to satisfy standards of impartiality. As a result, the choice environment tends to be more like that of a controlled experiment than a supermarket.

A third recognised factor is that choice overload is more likely to occur when choosers are trying to find the least bad of a set of undesirable options than when they are trying to find the best of a set of desirable ones. There are obvious psychological reasons for this: thinking about undesirable possibilities prompts negative emotions, and avoiding or postponing choice is a way of switching off the source of these emotions. Thus, a choice between alternative treatments for a life-threatening illness is much more demotivating than a choice between holiday plans – even though the latter problem may involve a very wide range of unfamiliar options. For similar reasons, one might expect consumers to find it harder to maintain attention when choosing between complex energy or telecom tariffs (a problem that lacks strong positive or negative affective cues) than when choosing between food products in supermarkets or between car models in showrooms.
The available evidence suggests that choice overload is a genuine phenomenon of certain types of choice environment, yet it does not support the extravagant rhetoric of some of the literature on the topic. One straightforward implication of this finding is that markets need to be treated on a case-by-case basis when determining whether or not intervention is called for. More importantly, the wider, ideological context in which policy-making takes place calls for reflection. The idea that markets offer too much choice appeals to a culturally conservative sense of regret about changes in tastes and technology that are transmitted through markets. This may seem harmless fogeyism, as when Schwarz (2004, pp. 1–2) begins his account of the tyranny of choice by complaining about Gap for allowing him to choose between too many different types of pairs of jeans (‘The jeans I chose turned out just fine, but it occurred to me that buying a pair of pants should not be a daylong project’). But this can easily turn into protectionism. In an economy with increasing returns to scale, consumers of products in declining demand have a common interest with the suppliers of those products in restricting other consumers’ access to alternatives. (For example, think of public opposition to the building of large supermarkets – particularly down-market ones – in small country towns. These developments are unwelcome to those who prefer to patronise small shops, but only because supermarkets can attract willing customers.) One way of camouflaging this interest is by claiming to protect people from facing too many choice options.

**Further reading**

Important papers in the literature on confusopoly include:


Chapter 3

Social Influences on Behaviour

Shaun Hargreaves Heap
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Social Influences on Behaviour
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In this chapter, we look at the ways in which people’s choices often seem to change as a result of social influences. These influences are various and so are their implications for policy. We point to the scope for new kinds of policy, to new issues in the conduct of competition policy and, ultimately, to questions concerning whether efficiency can be the criterion for guiding policy.

“... we cannot rely on the criterion of efficiency as conventionally understood in terms of preference satisfaction when individual qua individual preferences do not meaningfully exist.”

3.1 Introduction

One of the issues addressed in this chapter is what people can learn both from their own experiences and from observing the experiences of others and how these may contribute to welfare.

Imagine that we see someone we trust or like, they are eating at a restaurant and so we decide to eat there too. This is a social influence on individual behaviour. It could have arisen in two distinct ways. We could have been looking for somewhere to eat and taken the person’s presence in the restaurant as a reliable indication that this was a good place to eat. Alternatively, we could have had no prior intention of eating at a restaurant, but we identify with this person and the group that he or she belongs to; they are part of our set and so we decide to eat at this restaurant too, as this is what our group does. In the one case, the behaviour of others transmits useful information about how best to satisfy our desires and we act on this information. In the other, our desires or preferences are influenced by those we associate with, and that is why we follow what they do. This vignette raises the question of how the presence of such social influences might create opportunities and set challenges for policy.
3.2 Information effects

The first of the influences described above is beneficial when the information is good; and while it may seem unlikely that the effect would be lasting if the information is unreliable (that is, if the restaurant proves to be bad), this is not always the case. It seems that groups of people can get stuck believing some remarkably silly things. For example, some of the early experiments on conformism found that people were surprisingly willing to agree to statements of a factual kind that they knew were actually untrue when they also knew that others held them to be true. The same is, in effect, possible even when individuals are ultra-rational Bayesian updaters (see Box 3.1).

Information cascades

Anderson and Holt’s (1997) cascade experiment has two urns: A (with 2 ‘a’ and 1 ‘b’ balls) and B (with 1 ‘a’ and 2 ‘b’ balls), and subjects have to guess which urn is being sampled. They are helped in this by receiving a private signal: they are told the type of ball that has been randomly drawn and then replaced in the urn from which it was taken. Each individual makes their guess in sequence, and those coming after the first person know what those who have come before have guessed.

To make the connection with restaurant choice, suppose there are two restaurants, A and B, and ‘a’ is a good meal and ‘b’ is a bad meal. A is therefore the good restaurant because it is more likely than B to serve a good meal. The problem is that individuals don’t know which is restaurant A and which is B; they only sample a meal at one. What they would like to avoid, therefore, is thinking they are in A when actually they are in B.

The first person in the sequence has no evidence of what others have chosen and so, assuming an equal prior probability of A being selected as B, then, if the person observes an ‘a’ ball and uses Bayesian updating, he or she will declare that the urn being used was A. This is because the probability of A conditional on drawing an ‘a’ ball is 2/3 (which is higher than the probability of B conditional on drawing an ‘a’ ball, which is 1/3).

If the second person receives the same signal, an ‘a’ ball, then they too will choose urn A because there is the weight of their own signal and that of the first person who has revealed that their signal was also ‘a’. The third person is the interesting one in this sequence because when they observe two choices for A, it does not matter whether their signal was an ‘a’ or a ‘b’, they should declare A too. This is because even when the third person receives a signal of ‘b’, a Bayesian updater should be guided by the fact that there have now been two signals of ‘a’ and one of ‘b’, which is still more likely if the sampling has been from urn A than urn B.

Of course, it is more likely that if there are two draws of ‘a’, the draws have been made from A rather than B. So, on average, people who respond in this way to {‘a’,’a’} will be right. However, they will not always be right because it is possible to draw {‘a’,’a’} at B, and when this happens people will quite rationally continue to make the mistake of selecting urn A. This is because, as we have seen, the third person, even if they receive a counter-indication in the form of a ‘b’ draw, will still be guided by what others have done and choose A; and thereafter the same logic applies because the next person now faces a history of 3 A choices, and so on. In other words, to return to the restaurant example, it is perfectly possible that people who have selected the bad restaurant could continue to think that they are at the good one.

Whatever the precise source of this conformism, it can exert a particular influence over people other than those whose behaviour is first noticed and followed, and it means that such networks of individuals can get locked into a sub-optimal outcome: the equivalent of never trying another restaurant, with the result that no one has any other restaurant to compare with the restaurant where they all eat. This, in turn, can create scope for policies to influence behaviour simply by providing information on what others are doing (see Box 3.2).

Conformism can also arise when the value to an individual of consuming something depends on the number of other people consuming it. In this case, the behaviour of other people can be a source of information of a rather different kind. When we watch a film or TV programme or we go to an exhibition, part of the pleasure is experienced at the time of consumption; but part of the pleasure comes later from being able to discuss the experience with others. Critically, this later pleasure depends on whether others have also seen the film, watched the TV programme, and so forth. As a result, it can make sense for individuals to prefer to watch what others are watching even when their natural tastes might point them in a different direction. This is sometimes called the water-cooler effect because of the way that people in offices often congregate in communal spaces for a chat.

The water cooler effect is important because it will tend to concentrate demand on fewer films, TV programmes, exhibitions, and so on, than would otherwise be the case; and this has several implications for policy.

First, the observed level of concentration at a moment in time will not necessarily be a good indication of the degree of competition in the industry. What matters more is the number of initial offerings and whether it is always the same producer that dominates.

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**Social nudging with information prods**

Thaler and Sunstein (2008) report on two cases where the judicious provision of information has affected behaviour.

One case concerns the informational initiatives designed by Minnesota with the aim of improving tax compliance. Some initiatives threatened punishments, others explained how the taxes were spent, and there was helpful information on how to complete a tax form. However, the initiative that had the greatest success was information on the proportion (90%) of Minnesotans who had already complied with their tax obligations. It would appear that there’s no better spur to filling in a tax form than knowing that most others already have.

The other case was an intervention in a student group. A Harvard School of Public Health survey found that social perceptions of binge drinking were much exaggerated, that is, the incidence of binge drinking was less than students believed it to be. If the social perception of prevalence encourages the bad health behaviours, then publicising the lower actual incidence of these behaviours should lower the bad health behaviours. Indeed, this is what happened in Montana when the actual number of teenage smokers was publicised.

Second, there is a new type of risk in these industries and this may be the source of a bias in output that policy makers need to consider. The point is that there is not simply the usual uncertainty that attaches to any new product, that is, whether its intrinsic properties are good. There is also the uncertainty that attaches to the social dynamics that set a bandwagon rolling in favour of, say, a particular film this week at the box office. It will be natural for producers and distributors of films to try to control this additional source of uncertainty through marketing activity at the time of the release of a film, but it may also lead film producers to prefer films that are more likely to attract a large audience immediately. This might account for their reliance on established stars and sequels. This may also explain why soaps and series are such popular genres in television drama as compared with single episode dramas: each episode in a soap can immediately expect to draw on a ready audience of those who have watched the soap in the past. The issue for policy makers is whether such a bias to the familiar should be a source of concern. Does this mean that there is an inbuilt bias against new ideas? And how does competition affect the extent of any such bias?

3.3 Belonging to a group

The second interpretation of why we might follow others at a restaurant can seem more worrying than the first. On this second interpretation, individuals would appear to some degree to be nonentities in the sense that they take on the preferences of those who are important in their peer group. This affords obvious scope for manipulating individual choice, but it need not be as sinister as it first seems.

People are typically not only interested in the physical properties of the goods they consume; they are also concerned with what the consumption of a good means to others. Driving a car gets one from A to B. The physical properties of a car are what enable this feat. But there is more to driving than this. The choice of car will often signal something about the driver. For example, driving an Audi says something about the driver that, say, driving a Ford would not. It suggests that the driver is someone who appreciates German engineering, its attention to detail and use of technology (‘Vorsprung durch technik’), but laced with a bit of German self-irony. It is no coincidence that we know these things from advertising. A great deal of advertising works through helping to fix the symbolic properties of goods (what they mean) thereby making them attractive to some groups of consumers. Thus, X, who is cool in sense Z, wears Y, and so Y acquires the meaning of cool in sense Z; so those who aspire to being cool in the sense of Z now know that they can signal their coolness by wearing Y.

In this instance, a person’s desire for Y has been influenced by advertising. But what has not been affected is their underlying desire to be cool in the sense of Z; it is this that is responsible for purchasing Y. This form of social influence is not obviously worrying, therefore, because people’s underlying preferences have not been affected. X may benefit, and so do the producers of Y; but the group who value coolness in sense Z can now communicate this property to each other. Nevertheless, competition policy may become complicated as a result: how, for instance, should one judge the extent of competition in the fixing of the symbolic property of Z to Y? and how does this competition affect consumer welfare?
However, it does seem likely that there will be instances where social influence does extend to an individual’s underlying preferences (see Box 3.3 for an example). It is not always easy to identify when social influence is at work and its precise form. For example, people seem to work harder when put in a group of high performing workers; this could either be because a preference for hard work becomes stronger in such an environment, or because people evaluate their own performance relative to that of others and have a constant underlying preference to think well of themselves. It is difficult to imagine how this could not be the case in a broad sense. Whatever the part played by nature in influencing our behaviour, it is this that has proved to be evolutionarily successful for the kind of life that has characterised most of human history, that is, hunter-gatherer societies. But such a legacy is simply not congruent with the decisions that we face in wealthy mass societies with a complicated division of labour. In other words, our evolutionary heritage may supply us with habits of decision-making and thinking, but it cannot possibly supply us with preferences over the commodities that we must decide between in contemporary daily life. And if it is not exclusively nature that is at work, then there must be social influences that help determine individual preferences.

**Social bandwagons**

Salganik, Dodds and Watts (2006) report on experiments where different groups of subjects could download and rate the same set of music tracks. The experiments were conducted under two conditions. In one condition, subjects knew nothing about which tracks the others in their group were downloading and how their peers were rating these tracks. In the other condition, subjects knew both which tracks were being downloaded and the ratings of their peers. The individual ratings in the first group were more diverse than in the second group. Since subjects did not know who they were in a group with (it was an anonymous interaction), it is difficult to interpret this concentration of taste as following from people trusting in the tastes of those they know or wanting to use their consumption experience for social discussion and reflection. Instead, it seems more likely that the ratings were more concentrated on a few tracks in the second group because people’s tastes had become more similar in this group as a result of the knowledge of what others in their group were doing. This interpretation is further supported by the other key result of the experiment: in the second treatment, there was much greater variety across groups with respect to the most liked track. In other words, it seems that a bandwagon would develop in favour of some track in the second treatment and that chance had a lot to do with which particular track this bandwagon developed over.

Salganik M, Dodds P & Watts D, 2006, ‘Experimental study of inequality and unpredictability in an artificial cultural market’, *Science* 311 (February), 854-856
Should public policy care about social influences of this kind? If it does, then it cannot be guided by efficiency in relation to individuals’ preferences because these are precisely what is in question - just as in some of the examples in this book (see §1.2). Instead, if the individual is to be the reference point for such interventions, as one would expect in liberal democracies, it must be another attribute of the individual that should count when deciding on public policy interventions. In other words, we cannot rely on the criterion of efficiency as conventionally understood in terms of preference satisfaction when individual qua individual preferences do not meaningfully exist.

What might a criterion look like that is individual-sensitive but not based on preference satisfaction? The autonomy of the individual is one candidate, and policy might be judged on the extent to which this is promoted. Thus, the lesson might be that we shift from worrying about how well a person’s preferences are satisfied to a concern for whether the conditions under which the person acquired the preference are such that the preference or behaviour at the time can be reasonably said to belong to that person.

3.4 Whose group are you in?

It is one of the ubiquitous features of social life that people belong to groups. Groups can arise from shared interests (as in the golf club) or shared beliefs (as in political parties or religious groups). Groups are also formed in neighbourhoods through shared geographical space, through shared race or ethnicity, and so on. The list is endless. We have seen above that membership of such groups can be important for consumption. We also know that people often behave differently when interacting with members of their own group as compared with those outside the group. For example, people typically trust fellow group members more than they do outsiders, and people also contribute to public goods more readily when combining with fellow group members than when outsiders are involved.

The preferences that motivate trusting or cooperative behaviour are often referred to as social preferences. This is because they encourage behaviour that is in one way or another pro-social by serving the interests of others as well as one’s own interests. The observation that such prosociality depends on social context (for instance, whether an individual is interacting with a fellow group member or an outsider) is, in effect, to say this is another instance of a social influence over preferences, albeit ‘social preferences’. Even if people’s ordinary self-interested preferences are not affected and remain the basis for making policy judgments in these cases, the domain of public policy expands considerably. There is a range of policies, from those on immigration to those on faith schools, that are likely to affect the constellation and shape of group affiliations in society. There are benefits from the diversity of groups and there are also, it seems, costs that arise because people appear less able to trust and cooperate with each other when they belong to different groups. There is also the particular issue of how competition policy itself might influence social preferences: might social preferences atrophy under the promotion of competition? and is this taken into account when such policies are pursued?
3.5 The social dimension to choice architecture

Recognition of the existence of groups points to a new dimension or aspect of choice architecture (that is, the context in which choice takes place and its particular features), one that raises new issues. In relation to some groups, there is the issue of whether decisions should be made collectively as a single decision covering all within the group, or through a series of individual decisions. Well-known cases where this issue arises are associated with public goods like defence, law and order, and street lighting; here, the presence of externalities associated with individual decisions creates a free rider problem with the result that efficiency can be best served by shifting from individual to collective decision-making. This is the famous Hobbesian argument for the creation of the State. But the insights of behavioural economics suggest this is not the only consideration that should enter into judgements about the architecture of decision making.

Two findings are emerging from the experimental literature on the difference between individual and group decision-making with respect to the same task. First, group decision-making is less prone to the biases and errors that have been observed in individual decisions (see Box 3.4). Second, a group decision is less likely to exhibit pro-sociality than an individual one.

**Box 3.4**

In an experiment, first popularised by Tversky and Kahneman (1983), Charness, Karni and Levin (2010) presented subjects with the following question.

Linda is 31 years old, single, outspoken, and very bright. She majored in philosophy. As a student, she was deeply concerned with issues of discrimination and social justice, and also participated in anti-nuclear demonstrations. Which of the following is more probable?

(a) Linda is a bank teller.
(b) Linda is a bank teller and is active in the feminist movement.

Since (b) imposes an additional restriction, it must be less likely than (a). However (b) may make more narrative sense and so could be wrongly chosen because we are guided by narrative sense in our decisions. Tversky and Kahneman (1983) found this to be the case and Charness et al (2010) reproduce the result. In their experiment, individuals made the mistake of choosing (b) 45% of the time. But when pairs of two subjects were asked the same question in their experiment, the error rate dropped to 34% and, when groups of three were asked, it fell to 17%.


The first finding suggests that where there are biases which lead individual choice to go astray, there is an argument for shifting these decisions to the collective level. The second suggests that if trust or cooperation is important in the interaction between individuals in group A and individuals in group B, then it will be better to allow the individuals to interact individually rather than be governed in their interaction by a collective decision. This is because individuals are more likely to exhibit trust and cooperativeness in these interactions when the decision is made by the individuals than if their interactions were governed by a collective decision. This is no more than experimental support for what is a well-known experience: the typical person is kinder to a stranger than is the community that he or she belongs to in its attitude towards strangers.
3.6 Conclusion

We have seen that people’s choices often seem to change as a result of social influence. These influences are various and so are the implications for policy. For example, the behaviour of others can transmit useful information to observers about how best to satisfy their preferences, yet it can also lead to networks of people becoming locked in to suboptimal outcomes. Where it can be determined that the latter is the case, there is scope for policy to influence behaviour for the better by providing information on the behaviour of those who have not been observed, or by providing (more) accurate information with a view to correcting people’s misperceptions.

The potential for preferences to be rather less stable and more malleable than is conventionally assumed raises new – and tricky – issues for the conduct of competition and consumer policy. Traditionally, the extent to which the individual’s preferences are satisfied has been an important criterion in assessing the behaviour of markets and whether or not there is a need for intervention. But this criterion is unsettled once we entertain the possibility that an individual’s behaviour can be motivated by preferences that are not their own. However unsettling this observation may be, behavioural economics at least provides insights to new kinds of empirical research and new kinds of policy.

Further reading

Hargreaves Heap S, forthcoming 2013, ‘What is the meaning of behavioural economics?’ Cambridge Journal of Economics


Part 2

Empirical Case Studies
Chapter 4

Searching and Switching Across Markets: Is Consumer ‘Inertia’ the Result of a Mistake or a Preference?

Minyan Zhu
Chapter 4
Searching and Switching Across Markets:
Is Consumer ‘Inertia’ the Result of a Mistake or a Preference?

Minyan Zhu

This chapter draws on responses to a CCP survey of consumers to address the question of why some consumers search and switch, some search but do not switch, and others neither search nor switch. The author concludes that, in a number of cases, it is questionable whether the failure to switch is the result of an error or simply the result of a preference to stay with the current supplier.

“If consumers’ searching and switching decisions do, indeed, reflect reasonable preferences in the circumstances, then a robust understanding of the root causes of complexity and uncertainty is essential before intervening.”

4.1 Introduction

“You’re more likely to be divorced than to change your bank account”, said the UK Shadow Chancellor when speaking about banking reforms in the wake of Barclays’ LIBOR rate-rigging scandal. Figures from the Office for National Statistics show that on average marriages last 11.4 years before ending in divorce, which is considerably less than the 26 years of banking loyalty reported by the Independent Banking Commission.1 While it is debatable whether a comparison between the duration of marriage and the duration of banking relationships is meaningful, the figures do reveal the strikingly low switching rate in the retail banking sector. And consumer reluctance to switch seems to be a common feature of some other service markets, too.

A CCP survey in 2005 of consumers also showed a low rate of switching in retail banking - only 5% over three years.2 This was less than one sixth of the switching rate in car insurance (which was about 32%). Between 9% and 17% of respondents had changed their supplier of fixed line rental, national/overseas calls, broadband and mortgage in the previous three years, while about a quarter had switched their electricity supplier and mobile phone provider (see Box 4.1). While switching rates differ across markets, responses show that, among those who searched, around 30-50% did not switch in any of the above-mentioned markets (see Box 4.1).

1 Final report available at http://www.hm-treasury.gov.uk/fin_stability_regreform_icb.htm
2 The dataset was collected as part of the Centre for Competition Policy’s Project 6 (Consumers and Super-complainants). A representative sample of 2,027 adults aged 16 or over were interviewed face-to-face, in-home, in 167 sample points across Great Britain between 18 May and 13 July 2005.
Box 4.1

Searching and switching activities in eight markets

Results (%s of total responded out of 100%)

Reasons for not switching:

- Switching would take too long
- Others or don’t know
- Current supplied matching good offer
- Others or don’t know
- Concern new suppliers might be unreliable
- Others or don’t know
- Concern new suppliers might be unreliable
- Difficult to make comparisons
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- Others or don’t know
4.2 Why is it that some consumers search and switch – and others don’t?

The responses of participants in CCP’s 2005 consumer survey are illuminating on the question of why so many consumers seem reluctant to switch in some markets. In the discussion below, we distinguish between two groups whose behaviour is vital to understanding consumer behaviour: those who neither searched nor switched and those who searched but did not switch.

Of those who did not search, the two most frequently given reasons are the same across all markets: ‘I am happy with what I have’, and ‘too much bother’. The third main reason varies across markets: ‘too little saving’ (electricity, fixed phone line, national and international calls, current account); ‘not enough time’ (mobile phone, broadband) or ‘tied to fixed contract’ (mortgage). These responses call for interpretation.3 One interpretation of ‘I am happy with what I have’ could be a lack of awareness on the part of consumers, but it may be a preference to stay with the current provider. The responses ‘too much bother’, ‘too little saving’ and ‘not enough time’ might suggest that search is motivated by the expected gains from searching or switching. However, the low searching rates across markets could indicate that consumers perceive there to be too much difficulty involved in the process relative to the expected gains from searching and switching. Deeper analysis of these responses is required to distinguish between competing interpretations and to capture the forces motivating consumer behaviour.

The two most frequently given reasons for not switching are also the same across all markets: ‘I am happy with what I have’ and ‘no better deal’; while the third most frequently given reason varies across markets: ‘it would take too long’ (electricity and current account), ‘current suppliers matching good offer’ (all telecommunication markets, that is, mobile phone, fixed line, national and international calls, broadband) and ‘financial penalties’ (mortgage). While the most frequently given reason for not switching is the same as that given for not searching (‘I am happy with what I have’), it may well be significant that the second most frequently given reason for not switching is ‘no better deal’. As we discuss in more detail below, some of the non-switchers are also searchers and the response of ‘no better deal’ from these non-switchers to some extent validates non-switchers’ anticipation of there being ‘too much bother’ involved. The response of ‘suppliers matching good offers’ might suggest there is competition between suppliers to keep their customers; and it might also indicate that any price difference is small enough to be matched. In the mortgage market, the cost of searching and switching is amplified by the costs associated with cancelling fixed-term contracts and financial penalties; these seem to have been a major concern of consumers at the time of the survey.

The most frequently given reason for searching is the same across all markets: ‘felt price too high of current supplier’. The second most frequently given reason is the same across all markets: ‘advice from friends/family/neighbour’, except for the electricity market. In this market, ‘sales and visits’ is the second most frequently given reason. The third most frequently given reason is ‘general publicity’ (electricity and all sub-markets related to telecommunication), ‘always look around when renewal due’ (car insurance and mortgage) and ‘poor service of current supplier’ (current accounts). Again, the responses suggest that expected gains are driving some consumers to search for better deals. If ‘I am happy with what I have’ suggests some lack of awareness among non-switchers, the responses from searchers suggest that their awareness comes from general publicity and advice from friends/family/neighbour.

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3 Respondents are allowed to choose more than one reason.
The three most frequently given reasons for switching are the same across all markets: ‘better price’, ‘better quality’ and ‘fed up with my current supplier’, except for the mobile phone market. Here, the third most frequently given reason is ‘bought a new mobile phone’. Not surprisingly, consumers switch to deals they think are better in terms of price and/or quality. But a very low switching rate across many of the markets in the study suggests that the proportion of this type of consumer is very low.

As we observed earlier, while the majority of respondents who switched also engaged in search, there are a number of respondents who searched but did not switch. The most frequently given reason for such behaviour is the same across all markets: ‘could not find better offer’. Box 4.1 shows that other frequently given reasons vary across markets. Responses from this group of respondents are largely consistent with the rest of the non-switchers, but they do reveal additional concerns: ‘difficulties in making comparisons’, ‘uncertainty regarding the new supplier’, ‘the switching process’, and other reasons consumers themselves are not very sure about. However, note that the major concern among this group remains ‘could not find better offer’.

To summarise the responses from all those who neither searched nor switched, while searching and switching rates differ across markets, the reasons for not searching and switching are very similar across all markets, that is, ‘I am happy with what I have’, ‘no better deal’, and ‘too much bother’. The concerns of these non-searchers appear valid when set against the responses of those who searched but did not switch and who report that, after searching, they ‘could not find better offer’.

4.3. Why can’t consumers find better offers?

One possible answer to this question is that there genuinely is no better offer available in the market. However, the literature provides evidence of price differences in various markets indicating that this is not necessarily the case. For example, empirical evidence shows that the deposit rates offered by banks to attract new customers and to harvest old customers results in persistent price dispersion. Evidence of price dispersion is also found in electricity markets, even though the product is homogenous. This evidence points to an alternative reason why consumers could not find a better offer: the complexity and/or uncertainty that they face in searching for better deals (see Box 4.2). By uncertainty, we mean that the gain from searching and switching is merely probable, not certain, and, moreover, that the size of the probability is also unclear to consumers. Such uncertainty may be a product of the complexity of the situation. Responses given by non-switchers suggest that complexity may lie with three facets of the decision-making scenario: the difficulty of comparing prices, a perceived lack of reliability in the switching process or in future suppliers, and confusion with respect to financial penalties and monetary savings.


Another facet of the decision-making scenario that could be associated with complexity across markets is consumers’ perceptions of the time involved in searching and switching. Responses show that expected search time is longest in the mortgage and current account markets, where it is two to three times longer than in other markets surveyed. Expected switch time is also longest in the mortgage and current account markets, and three to four times longer than in the mobile phone and car insurance markets where expected switch time is shortest. Expected switch time in other markets (such as electricity) is twice as long as in the mobile phone and car insurance markets.

### The complexity and uncertainty associated with searching and switching

There is evidence from beyond CCP’s own survey to suggest that complexity and uncertainty are, indeed, features of the searching and switching process facing consumers in a number of specific markets. For example, various OFT reports highlight major concerns with respect to the retail banking market because of the risk and complexity associated with switching: 32% of switchers reported some problem with the switching process in 2008, and this percentage was equally high in 2012 (OFT, 2008, 2013, 2010). These reports point out that consumers can expect it to take two weeks to two months to switch account provider, with the transfer of direct debits identified as the part of the process mostly likely to cause delay. In the retail electricity market, the time required for switching, and the importance of the ease of switching, are identified as important factors deterring consumers from searching and switching (Giulietti, et al, 2005). Wilson and Waddams Price (2010) provide an illustration of the extent to which consumers struggle to find better deals in the UK electricity market: only about 14% of consumers switched to the firm offering the highest surplus and, in aggregate, switching consumers appropriated only around 41% of the maximum gains available to them. Moreover, about a quarter of consumers who were specifically looking for a cheaper supplier appear to have switched to a more expensive deal. In telecommunication markets (which are subject to constant technological changes), consumers face particularly complex decisions because many firms offer bundled services. (Box 2.1 in Chapter 2 provides further discussion of issues raised by bundling.) Lee et al (2006) find that the effect of number portability (designed to ease the switching process and encourage greater activity) is rather limited, which suggests that there are other sources of switching costs.


4.4 Discussion

In this section, we draw on both theory and evidence to derive insights to the forces at work in searching and switching behaviour. In particular, we consider the possibility that the uncertainty and complexity associated with decision-making may be making some consumers more risk averse.

According to prospect theory (Kahneman and Tversky, 1979), when faced with a choice situation characterised by uncertainty, people tend to apply decision weights to outcomes. In particular, they tend to over-weight outcomes that are certain relative to those that are uncertain, a phenomenon known as the certainty effect. To illustrate the principle, imagine a choice between two options:
(a) a 50% chance of winning £1,000 and a 50% chance of winning nothing; or
(b) £450 for sure.

In these circumstances, many people would choose option (b). Under standard theory, this might be explained as a simple case of risk aversion. But prospect theory goes further in asserting that observed behaviour is the result of treating the probability of winning £1000 in option (a) as less than the objective probability of 50%. Moreover, gains and losses are evaluated differently, with greater weight assigned to losses than to equal size gains, a phenomenon known as the reflection effect.

What the theory implies for the evidence on searching and switching behaviour is that people tend be more averse to switching losses than they are attracted to equal-size switching gains. Moreover, as the evidence seems to suggest, the probability of a gain is unclear to consumers, which could be a product of the complexity of the situation. In support of this explanation of observed behaviour, experimental evidence shows that people prefer to bet in a context where they consider themselves competent and knowledgeable rather than in a context in which they feel ignorant or uninformed.

Regret theory also supplies useful insights to consumer behaviour. Loomes and Sugden (1982) propose that, in an uncertain world, people make choices taking into account their anticipations of feeling regret or rejoicing once the outcome is realised. Thus, the decision not to search and switch might indicate that the individual feels they are likely to experience more regret because of losses than rejoicing because of equal size gains and that this anticipation has been factored into decision-making.

Notice that both of the above theories suggest that the observed ‘inertia’ associated with switching behaviour reflects a preference on the part of the consumer rather than a mistake. Survey findings do seem to lend some support to this suggestion. Thus, one implication of survey responses is that some consumers may anticipate a high cost of searching and switching and therefore prefer not to act. If searching and switching is a time-consuming and complex task, and if it is necessary to repeat searching and switching activity at frequent intervals to make the best savings (as the best deal today may not be the best deal tomorrow), then those consumers who anticipate this to be the case may prefer not to search for better deals at all. Indeed, our survey responses show that the concern of non-searchers that there is ‘too much bother’ and ‘too little saving’ is very much confirmed by the responses of the group who searched but did not switch (about 30-50% of all searchers). The response of ‘no better deal’ by non-switchers could indicate that people do not believe that the best deal now would still be the best deal in the future. Consumer inaction does, then, seem to reflect preference rather than mistake.

4.5 Conclusion

As we observed in Chapter 1, consumers play a key role in activating competition. When at times it seems that consumers are not playing a proactive role in the market, it is important before intervening to determine whether such behaviour is due to error or preference. This chapter’s discussion of the evidence acquired from several markets casts serious doubt on the proposition that consumers’ searching and switching decisions necessarily reflect errors to be corrected rather than non-standard preferences formed in response to uncertain and complex choice situations. If consumers’ searching and switching decisions do, indeed, reflect reasonable preferences in the circumstances, then a robust understanding of the root causes of complexity and uncertainty is essential before intervening.

Further reading

Comprehensive surveys on various economic models of competition in the presence of switching costs appear in:


Chapter 5

Shedding Light on Consumer Behaviour in Energy Markets

Catherine Waddams Price
Chapter 5
Shedding Light on Consumer Behaviour in Energy Markets
Catherine Waddams Price

Policy-makers have been disappointed by low levels of switching activity in UK energy markets. This chapter presents evidence from surveys and experiments on why this might be the case and considers the solutions that might be appropriate.

“Even those who are relatively active, who have ‘paid attention’ and made some effort to engage with the market, and who are confronted with a simple choice, do not necessarily switch to better deals.”

5.1 Introduction
In the UK, low switching levels in energy markets have attracted intervention at the highest level of government, with the Deputy Prime Minister and the Prime Minister both pledging that consumers will be placed on the cheapest deals available. Why do consumers need such intervention in the energy market, when many commentators believe that such a policy risks damaging the competitive market? Why don’t consumers switch to the best deal in a market where the product is the same whoever supplies it and so it should be easy to identify the best deal? And how can policy makers help the market to work better in consumers’ own interests?

The energy regulator has been grappling with these issues since 2008, following its probe into the residential energy market. In 2011 they concluded that complex tariffs and poor comparability between suppliers exacerbated any consumer biases which might be evident in energy markets (such as a status quo bias). Following this conclusion, much of Ofgem’s policy, like that of the government, has focused on simplifying tariffs to remove these exacerbating factors. But will these measures help?

Research into consumer behaviour in energy markets over several years at CCP suggests that while complexity may indeed play a part in the inertia of energy consumers, other factors should not be ignored. One of the main drivers of switching is, not surprisingly, the potential gains which consumers can expect to make through the switch. Earlier regulatory intervention, particularly through the non-discrimination clauses, reduced available gains between 2008 and 2012 by around half. Over the same period, the switching rate for both gas and electricity in UK residential markets also halved. So intervention which reduces potential gains is likely to lead to lower rather than higher levels of switching.
Consumers do not always make ‘good’ choices. At an early stage of the market those who changed supplier only in order to save money often ended up paying more; between one quarter and a third of those switching for a better deal ended up on a worse one.¹ These mistakes were made before tariffs became so complex, so that comparisons were relatively easy, though it was also before there was widespread use of price comparison websites.

Moreover while consumers who expect higher gains are more likely to change supplier, those who expect the process to be more time consuming seem no less likely to do so. So the time anticipated to change suppliers does not seem to be influential. However, one of the most important² factors is whether they have switched other products, raising a ‘nature versus nurture’ question. Are some consumers intrinsically more likely to be active across markets, or does experience in one market encourage activity in others?

5.2 Consumers are not all the same

More recent research into energy switching has explored different behaviours around switching exhibited by different consumers, indicating that a variety of policies are needed if the government and the regulator want to increase the activity of looking around for better deals and changing supplier. Consumers were classified according to their attitudes to various factors, and by whether they were able to provide even rough estimates of how much they might save and how long it would take them to look around for a better deal. Different factors affected different groups – for example, whether they had switched other suppliers was much more influential amongst some groups than others. Among those who could estimate gains and time for switching, these groups confirmed that expected time had little influence on switching, while those who expected higher gains were more likely to have switched. Similarly the link between searching and switching varied – in some groups they were closely related, in other groups there was little obvious correlation between these activities. All these results suggest that different policies may be needed to stimulate activity effectively amongst different groups (see also Box 5.1).

**To switch – or not to switch?**

Even those who are relatively active, who have ‘paid attention’ and made some effort to engage with the market, and who are confronted with a simple choice, do not necessarily switch to better deals. Amongst a group which had signed up to a collective switching auction, many did not change suppliers even when presented with non-trivial savings and a very short and straightforward switching process. Those responding to auction offers are effectively facing a pure ‘switching’ decision, since the process of search has already been concluded by the time the offer is made. Yet amongst those who could save more than £68 per year, only a third chose to make the switch, even though they had already shown considerable commitment to the process by providing details of their energy consumption in entering the auction. For this group, an important driver in deciding whether to change supplier was the savings on offer – both the level of such savings and their proportion of the energy bill. And consumers who were offered two deals were less likely to switch (other things being equal) than those given only one offer.

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5.3 Paying attention\(^3\)

Liberalizing former utility monopolies such as the UK energy sector should have increased consumer welfare through lower price offers and the expectation that consumers will choose them. In contrast to this expectation, it has been observed that many consumers do not switch service providers even though the tariffs they are holding are suboptimal in a number of service markets where choice is possible (see, for example, Giulietti, Waddams-Price, & Waterson, 2005). This is at first sight a puzzling finding.

However, it only remains puzzling if consumers are expected to behave like fully rational decision makers in comparing products of considerable complexity and in actively engaging in comparing and consequently switching to different energy contracts at all. Consumers may simply not pay attention to tasks regarding the choice of services. It may not be in their minds in the same way as when they are seeking to save money buying groceries at a supermarket. And unlike the regular grocery shop, because there is a default supplier, there is a not a point in time in the day, the week, the month or even the year where, as a routine, people are required to pay attention to the task of choosing their energy supplier.

Recently, in an experiment on the UK energy consumer market, Sitzia, Zheng, & Zizzo (2012) found that the more complex the available contracts were (in terms of the number of available tariffs, single or dual commodities, linear or non-linear contracts) the more people finally ended up with a non-optimal - that is, more expensive than necessary – contract (see Box 5.2). Furthermore, due to consumer inattention, defaults played a major role. In cases where the default tariff was non-optimal the proportion of people that chose the cheapest tariff was significantly lower than when there was no default tariff. However, if the default tariff was already the cheapest tariff in the market, the proportion of those finally choosing the cheapest contracts increased significantly. This finding, which supports findings in other areas of behavioural economics and psychology, is of major significance to real world markets for services where default tariffs usually exist. When providing participants in the experiment with the opportunity to either search for the cheapest energy contract or engage in a non-incentivized and boring number counting task (and to switch between tasks at any time without any restrictions by simply clicking a button on the screen), displaying the alternative task as a default task decreased the proportion of cheapest energy contracts significantly. This result suggests that people are not only susceptible to defaults (the status quo) regarding product selection but also with respect to engagement in the selection task itself.

\(^3\) The experimental evidence is provided by Axel Sonntag and Daniel John Zizzo.
Participants in the experiment may have had conservative beliefs about the actual savings potential of switching service contracts (‘inferential expectations’ in the language of Menzies & Zizzo, 2009). In such a case they would not pay attention until and unless the savings potential was believed to be large enough. If that were true a strong information campaign might increase the probability of engaging in the search and switching task at all, which might result in selecting a cheaper tariff. This is supported by evidence from the surveys that potential gains are the main driver of switching.

Could telling people explicitly that they are not using the cheapest tariff attract their attention? Sitzia, Zheng, & Zizzo (ibid) found that using a generic warning only increased the share of cheapest contracts if people were not distracted by a default task different from the contract choice task itself. Further research needs to look at whether more specific and relevant warnings could be more effective.

However, in the same paper, Sitzia, Zheng, & Zizzo showed that by using a ‘smart nudge’ which automatically identifies the best tariff and uses this as the default choice, and making the power of default work for instead of against consumer welfare, we can obtain the best outcome around 85% of the time. Thus one policy implication of the experimental findings would be to automatically and periodically set the best tariff (in the market, not the service provider) as the default option. In such a case people would still be free to choose their tariff (for example, pay more for a green energy supplier if this is their preference); however, they would – by following a strong tendency towards the default option – more often end up with the cheapest tariff. This proposal is exactly what the Prime Minister suggested in October 2012. While it is difficult to see how this would work in practice within a competitive market, the experimental work may suggest ways in which some consumers could be helped to get better deals from the energy market.

Experimenting with attention

Controlled experiments have been found to be extremely useful in testing hypotheses relating to behavioural traits and in developing insights to behaviour that may potentially feed in to policy-making. The experiment undertaken by Sitzia, Zheng and Zizzo (ibid) took place in the laboratory at the University of East Anglia in 2011 and 2012. The tariffs in the experiment were partly real gas and electricity tariffs and partly constructed tariffs using the same structure as the real ones. They ranged from simple ones with one tier (that is, a single marginal price) to more complicated ones with two tiers and a ceiling (that is, a marginal price and, once consumption exceeds a ceiling, a second and lower marginal price). In total, 460 subjects took part.
Chapter 5: Shedding Light on Consumer Behaviour in Energy Markets

5.4 Unintended consequences

To attract households to switch to a company who was not the default supplier, companies coming into an area had offered discounts, which they did not offer to their own default consumers in their home area. By 2008 this discount was around 10% on average, so on average companies were charging ten per cent more to their customers at home than they were in other parts of the country. Equally, those who switched paid on average ten per cent less for their energy than those who didn’t. This concerned the regulator, particularly since a slightly higher proportion of households who were considered vulnerable were not switching and paying the higher prices. In September 2009, Ofgem introduced ‘non-discrimination clauses’ to prevent companies from offering different deals in different parts of the country, resulting in the differences dropping from around £30 per year in 2008 to £13 in 2011. However, this not only had the dampening effect on switching which we have mentioned above, it also provided an incentive for companies to ‘withdraw’ to their own market, and softened the strength with which they competed with each other. The likely result is that all consumers, including those vulnerable households who Ofgem was seeking to protect, paid a little more for their energy. Ofgem’s own figures showed profit levels rising after these changes, and they did not renew the non-discrimination clauses when they lapsed.

5.5 Policy recommendations

Energy costs are a significant proportion of domestic budgets, particularly for low income households. They are, therefore, very politically salient and attract the attention of those who are campaigning for better living standards. So, given the evidence from what consumers say about their searching and switching patterns, from what we observe in their behaviour through collective switching, and from the evidence from experiments on how individuals behave, what policy interventions are appropriate in residential energy markets?

Companies will be persuaded to offer better deals to consumers only if consumers react to them by seeking out the most attractive prices. These companies, who have been supplying a liberalised market for fifteen years, know that some consumers are active and some are not, and they have continued to compete for the active ones – inevitably offering them better deals than those who are content to stay with their current supplier. Such consumer differences are underlined by research at CCP which shows that different people react very differently. This poses a problem for the regulator. Are these different consumer responses and company offers an inevitable part of any dynamic market? Or are they symptoms of the use of market power to exploit more ‘naïve’ and inactive householders? In either case, recognising the differences between consumers, and the interaction between their behaviour and that of the suppliers in the market, are crucial components of any remedy which is to prove effective and not introduce unintended adverse consequences.

So in devising remedies to help consumers make better choices, policy makers need to be aware of different responses from different consumers. Moreover, it is important to recognise how any demand side remedies are likely to affect the offers which companies are prepared to make. If all consumers have to be put on the best tariff, which may have been offered to tempt the most active consumers from other companies, then that tariff may cease to be available. And the biases may well remain, even when consumers are equipped with authoritative and trustworthy information as in communal switching exercises. Even in an apparently simple market like energy, where the product is the same whoever supplies it, consumer choices are not straightforward. Policy needs to take account of the way in which real consumers (and real companies) respond, so the insights from surveys, experiments and market analysis provide crucial guidance to avoid the dangers of unintended consequences.
### Further reading


Part 3

Implications for Competition and Consumer Policy
Chapter 6

Behavioural Remedies in Final Consumer Markets: Theory and Evidence

Morten Hviid
Chapter 6
Behavioural Remedies in Final Consumer Markets: Theory and Evidence
Morten Hviid

In this chapter, we look at the problems which can arise for consumers before, at and after the point-of-sale, and the remedies designed to address these. We highlight some of the difficulties associated with implementing these remedies and consider the conditions which must be in place for a remedy to be effective.

“The key lesson from this chapter is that IF consumers are willing and able to process information, then remedies that aim to improve consumer information either directly or indirectly would be the most powerful. ... But this is clearly a big ‘if’.”

6.1 Introduction

In competition enforcement, remedies are typically divided into two different groups. One group, referred to as structural remedies, aims at restructuring an industry to leave the market to respond in a way which makes consumers better off. Another group, referred to as behavioural remedies, aims at directly altering the behaviour of market actors to achieve a similar end. In both cases, to assess the efficacy of such remedies, it is important to allow for reasonable or relevant behavioural biases that arise among both consumers and firms.\(^1\) Box 6.1 offers a simple example.

The consumer is envisioned as dealing with two problems in order to be able to make a decision. One is to acquire the necessary information. The other is to process this information in order to make the best use of it. What we make of information depends on our training, the way in which the information is presented, and the complexity of the situation we are trying to understand. As Chapter 4 demonstrates, where the consumer is actively gathering information, the gathering strategy may well be informed by expectations of the time and computational capability involved. Where information is provided by other parties, whether by firms, authorities, friends, or others, there may be a mismatch between the amount and type of information and the consumer’s capacity to process it.
The objective of this chapter is to highlight some of the theory and empirical evidence underlying a number of behavioural remedies in final consumer markets. In doing so, it builds extensively on a summary offered by CCP members in Garrod et al (2009)\textsuperscript{2}. The discussion is divided into remedies which respond to the problems arising in three situations: before the point-of-sale (POS), that is, before the consumer is in the store or on the website; at the POS, that is, in the store or on the website; and after the POS, that is, when the consumer may be trying to undo a deal or to switch supplier. But before turning to these remedies, we briefly discuss when and how the market itself may solve the problem of insufficient information.

### Bank remedies

One of the remedies imposed by the Competition Commission following the market inquiry into Northern Ireland banks was a requirement for the acquiring bank to:

"[I]ntroduce improvements to the switching process, including offering a charge-free and interest-free overdraft facility to new customers for at least three months. Alternatively, banks must guarantee to refund any costs incurred from failures in the switching process regardless of whether the charges and interest were incurred as a result of an error by the new bank".

The remedy was aimed at allaying consumer fears that, following the switching of a bank account, errors would result in transferring direct debits which could leave the customer overdrawn, thereby attracting financial penalties and possibly loss of credit worthiness. The effectiveness of the two alternatives in the quotation may be very similar if consumers are fully rational. However, viewed through a behavioural lens, they are very different in their effects. If consumers are inattentive to the detail, that is, they neglect to observe the date at which the charge-free and interest-free overdraft facility expires, the first mechanism may actually lead consumers to acquire more debt than they planned.

Competition Commission press release 25.5.2007 on ‘Personal Current Account Banking Services in Northern Ireland market investigation’.

\textit{Inattention} is discussed further in Chapter 4.

### 6.2 Obtaining information

Before intervening in a market in which a competition problem has been identified, it is important to determine whether market participants have, or can be given, the incentives to address the problem themselves without direct policy intervention. Research has suggested that firms may be better than government agencies at communicating effectively with consumers (see Box 6.2 for an example). We should not be surprised by this insight: firms can have a strong financial interest in communicating effectively in order to sell their products and, typically, they do so extensively, for example, through advertising, designs, labels, and packaging.

Chapter 6: Behavioural Remedies in Final Consumer Markets: Theory and Evidence

Even without intervention, features such as the common standards that have evolved in an industry can incentivise firms to communicate effectively with consumers or, at least, not to confuse them. Thus, Gaudeul and Sugden (2012) argue that firms may not be able to increase complexity if there is a common standard aimed at simplifying comparisons and the adoption of this standard by a firm is taken as a signal that the product offers value for money (see Chapter 2 for further discussion).3

Under some circumstances, competition among firms may lead them to assist consumers in ways which are entirely benign. For example, where consumers talk to each other about past purchasing experiences and these conversations are influential in future purchasing decisions, firms may be very keen to ensure that consumers get the product that is right for them so that a ‘seal of approval’ is provided in consumer conversation. And if consumers are mistrustful of messages they do not readily understand, competition may lead firms to choose to reduce the complexity of decision-making.

The market may also fill the information gap by setting up commercially-run comparison websites. While these websites have the capacity to improve information, some research suggests that people visit at most one such website, so that their level of information depends on how comprehensive a website is in terms of its coverage. Not all suppliers may want to be represented on comparison websites. Moreover, when the products are readily comparable, a comprehensive comparison website may carry the seeds of its own destruction. If it is successful in creating intense competition to the benefit of consumers, margins will be low. This creates two problems. First, firms may prefer to withdraw from the website to avoid the competition. Second, where the website faces intense competition from other websites, it may not be able to design a payment system which enables it to be financially viable. We would expect competition between comparison websites to be the strongest the more comprehensive they are. Whether or not websites can soften competition through a differentiation of services, in addition to the price comparison facility they offer, will depend on the type of product covered.

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Even when comparison websites are comprehensive, they may not solve the information problem adequately if consumers are not sophisticated and the information is complex and multidimensional. Indeed, firms may be able to negate the increased competition arising from easier comparison of offerings by increasing the complexity facing consumers. One possible remedy is straightforward: enforced simplification to facilitate product comparison. However, where this remedy takes the form of restricting the number of products or tariffs available, it comes at a cost in that it potentially denies a preferred variant to well-informed consumers who are able to handle complexity. Other types of manipulation may be possible. Firms using these websites may have an incentive to manipulate consumer perceptions through the way in which information is presented. Take the case where a firm, offering a variety of products or payment methods, offers a very cheap but mostly unattainable variant to ensure that it is always in the top 10 of the list of cheapest providers, thereby giving consumers a false sense of the firm being generally cheap.

Where consumers are still poorly informed about the price of alternatives once they get to the POS, in-store price comparisons may provide them with relevant information. Examples of such comparisons are statements at the POS about prices for similar products at other outlets, past prices such as ‘was £12.99, now £9.99’, and reference prices such as ‘30% off recommended retail price’. The effectiveness of these statements relies on their credibility and veracity as assessed by the consumer. This turns on how inherently sceptical consumers are, on their knowledge of how tightly in-store price comparisons are regulated, and on how severely firms are punished for inaccurate or misleading statements. Interventions will be less effective where consumers are unaware of the rules and enforcement of pricing statements.

Just as there are cases where firms are willing and keen to provide the necessary information, there may equally be cases where they are reluctant to do so, whether in-store or on a website. The latter is more likely where, for the firm, the costs of monitoring the truthfulness of their statements are high and the consequences of making a mistake are severe. These costs will be higher where the subject matter of comparison changes very frequently.

6.3 Before the POS: Helping consumers obtain and use Information

To get to the POS, consumers must inform themselves on what is available and where. A lack of information can arise if the consumer has no prior experience of searching for a particular product or if purchase of the product happens only very infrequently. Consider, first, someone who is buying their first smart phone, and then someone who is replacing their laptop. In the first case, the consumer may not be familiar with the basic characteristics of the product they are considering purchasing. Acquiring such information takes time and the consumer will have to decide, not just who to ask, where to look and who to trust but, more challengingly, what to ask. In the second case, the consumer may know from past experience the questions to ask and where to start the search for answers. The lack of information can be simpler to remedy when the consumer knows what he or she wants but not necessarily where the product is available and/or at what price.

If the market does not spontaneously provide a solution, it may be possible to fashion a remedy which incentivises firms to do so. Examples of interventions in support of effective firm communications include systems for the certification of claims and the regulation of untruthful or misleading statements (see Box 6.3). If consumers know that firms are penalised severely for misleading statements or advertising messages, then firms have an incentive to make genuine statements to consumers while consumers have an incentive to believe such statements.
To make the unravelling of hidden information possible, it is important that consumers are well educated about their own rights and the obligations of firms, and that they are confident that the former are protected and the latter enforced. Note that consumers do not have to be active other than in the way they process information. Thus, if there is a system of grading the hygiene of restaurants from zero to five stars, and if consumers would never enter a restaurant with a two-star rating or below, then every restaurant with a score of three stars or above should be advertising this prominently, while consumers should take the absence of a clearly displayed rating as a sure sign that the rating must be below the acceptable level and so go elsewhere. Note that it is not necessary to have any rules about where or how prominently the rating should be displayed. As long as consumers play this minimally active role of believing that the news is bad if they cannot find a rating, this is sufficient.

Not all situations are that simple. Acquiring information and/or processing it often takes time and, possibly, a degree of skill. A fundamental problem with intervening to supply information before the POS is that consumers differ both in time and sophistication when it comes to accessing and processing information. Where information is complex, some consumers may misunderstand the information or simply ignore it. The implication is that interventions to support consumers before the POS are more likely to be successful where the information is, or can be made, relatively simple and where the effort required by the consumer is minimal.

Credible communication with consumers: the unravelling of information

Regulation which encourages firms to make honest statements may help them communicate credibly with consumers. Take the case of labels indicating fat content. Rather than mandating that the fat content must be displayed, regulation which makes credible in the eyes of the consumer any voluntary statement about fat content may be sufficient. To see how this works, consider the case where consumers generally prefer low-fat content but high-fat content is cheaper to produce. In the absence of any information about product content, firms with low-fat products have no particular advantage and they are not rewarded financially for supplying ‘better’ products. But with credible information, consumers will pay more for low-fat products, and firms producing such products have an incentive to indicate the fat content through their labelling. Note that initially only those with below-average fat content have an incentive to do so. But once the low-fat producers have singled themselves out through their labelling, the lack of a label will be associated with high-fat content, so that more firms (those with relatively lower fat content) start adding information to their labels. In theory, this unravelling of information should continue until only the brand with the highest fat content does not display this information on the label. We may question whether people really do make correct inferences from the absence of information, but the study by Ippolito and Mathios (ibid) suggests that this can happen.
6.4 Informed choices at, or just after, the POS

Once the consumer is at the POS, the firm has an extra advantage both because there is an opportunity to influence the consumer’s behaviour through direct interaction with them and because it is costly for the consumer to search elsewhere. This is the case regardless of whether the POS is a bricks-and-mortar store, a website or a home visit.

A remedy may be directed at countering two problems. One problem, discussed in §6.2 above, is that the consumer is still poorly informed about the product as well as about alternatives. The other problem, which we focus on here, is that the consumer may be placed in a ‘hot’ state by virtue of being at the POS with the potential for them to later regret having made the purchase.

There is the possibility of implementing heavily paternalist remedies, such as an outright ban on the sale of certain goods at particular locations, for example, chocolate at the supermarket check-out. However, the focus in this chapter is on ‘softer’ (or ‘weakly paternalist’) interventions that seek to change consumer behaviour.4

Where consumers enter into a hot state at the POS, one potential remedy is a cooling-off period. Thus, having the ability to cancel a contract unconditionally, or to return a product and receive a full refund within a given period, enables the consumer to revisit their purchasing decision once they are no longer in a hot state. For some products, retailers regularly offer no-quibble money-back guarantees. In assessing whether to introduce a cooling-off period for a physical product, a reasonable question to ask is why the firm is not already offering a money-back guarantee. Where the answer is that such guarantees are too costly for firms, they may in any case prove to be poor remedies as the cost is likely to be passed on to consumers in whole or in part. The classic example of a product for which a money-back guarantee is unworkable is the party dress; this is because in many cases a consumer would wear a dress very infrequently and so could deploy the money-back guarantee as a means of acquiring a free loan rather than purchasing the dress.

Some firm strategies, such as bait-and-switch, rely on consumers entering a hot state. Once tempted into the store with the offer of a cheap, but low-specification, product, the seller can then tempt the consumer to switch to a higher specification but also more expensive and, crucially, higher mark-up product. An extreme form of bait-and-switch is where the firm holds only low stocks of the low-price product that tempted the consumer into the store in the first place and then runs out of supplies. Consumers with a tendency to unplanned purchases are particularly vulnerable to the strategy. One remedy used in some countries is the so-called ‘rain-check’ policy, where the firm has to provide the customer with a coupon enabling them to purchase the product at the low-price next time they visit the store and the product is available. On the surface, this seems a reasonable solution to the problem from the perspective of fairness to the consumer. It may also appeal to firms since it reduces the need to hold surplus stock. However, the remedy may backfire if the consumer, once back in the store, enters a hot state and makes further unplanned purchases which, on mature reflection, they regret. As Hess and Gerstner (1987) observe, to cash in the rain-check, the consumer has to return to the store of the firm that strategically ran out of the discounted product5. Unless we think that consumers are less likely to be in a hot state when they return to cash in the rain-check, this gives the firm a second bite of the cherry.

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4 See Box 7.1 in the next chapter for examples of weak paternalist remedies.

6.5 After the POS: interventions to help consumers switch suppliers

For services that are delivered continuously, effective competition relies on consumers having the ability and the willingness to switch to a better deal. Example markets include telephony, broadband, energy, water, banking services and insurance (some of which are discussed in detail in Chapters 4 and 5). Similarly, where consumers purchase the same product repeatedly, as in the case of toothpaste or other consumables, for such markets to work in their interests, consumers must be prepared to switch product or supplier once the current offer no longer offers the best value for money.

A new issue arises in the case of switching which is the potential for both tangible and intangible costs to be incurred. Measures to lower switching costs that have been considered in the past include cancellation rights or limitations on contract duration, product attribute portability, and customer information portability.

In some respects, a cancellation right serves a similar function to a cooling-off period in that it gives the consumer time to reflect upon their purchasing decision and undo it in the event that they experience regret. More generally, cancellation rights allow consumers to terminate continuous service contracts, possibly subject to a notice period and/or to some kind of penalty. Cancellation rights increase competition because fewer consumers are locked in with their existing suppliers at any given time, offering a larger target for any firms either contemplating entry or just changing their own offerings. The conditions for remedies of this kind to have any practical effects are that consumers understand what is entailed and that they are willing to exercise such rights. Importantly, improved cancellation rights can have unintended consequences, as illustrated in Box 6.4, especially where there are benefits such as relationship-specific investments, arising from a more stable, longer-term relationship between consumer and supplier.

**Ofgem’s decision to remove a ‘28-day rule’**

The ‘28-day rule’ had enabled customers to cancel their contracts within this specified period. Ofgem wanted to create incentives for suppliers to invest in long-term energy-saving measures, equivalent to an offer in the ‘bargain’ phase of the contract. Since firms are more certain that the cost of such an investment will be recouped within a contract which is not subject to 28 days’ notice, they are more likely to invest in consumption-reducing measures which further environmental objectives.

The default rule related to renewal of a contract can have a large impact on switching. There is empirical evidence for more switching in car insurance (see Chapter 4) where the policy holder has to do something positive to renew a contract in contrast to other products where the default is that the contract rolls over. Clearly, there is a policy reason for making roll-over mandatory as a paternalistic remedy in response to the concern that people might accidentally self-disconnect. The policy proposed by Ofgem, that the consumer reaching the end of their current deal is not automatically rolled over but instead placed on the cheapest deal, could be seen as an attempt to insure the consumer against the lock-in arising under contract roll-over while at the same time ensuring that they are not disconnected through inaction. Yet the potential unintended consequence of that policy is the likely effect on competition that such an intervention would have.
Switching costs can arise if a specific attribute of a product is not portable. The most obvious example of such an attribute is the consumer’s phone number. Where lack of portability is the main impediment to switching, then forcing firms to enable portability is an obvious remedy to increase potential switching. However, this remedy is not without problems; this is because the attribute that consumers are attached to must be identifiable, and property rights must be easily transferable between firms or between firm and consumer. Box 6.5 provides an example of where a remedy facilitated the transfer of property rights that the market might not have been able to mimic.

**Box 6.5**

Solving the portability problem: transfering ownership of LPG tanks

The Competition Commission (CC) came across a portability problem in their market investigation into the supply of bulk liquefied petroleum gas (LPG) for domestic use in the UK. They found that when a switch occurred between suppliers of domestic LPG, it was common practice for the outgoing supplier to remove its tank so that it could be replaced with a similar tank by the incoming supplier. Due to the costly nature of removing and installing tanks, consumers faced charges from both incoming and outgoing suppliers. As a consequence, the number of consumers willing to switch suppliers was low and competition limited. To remedy the problem of high switching costs, the CC considered the possibility of transferring ownership of LPG tanks to consumers; but, because of the hazardous nature of LPG, the CC decided on safety grounds that transferring ownership of tanks between suppliers was a safer way to lower switching costs. The remedy enabled the incoming supplier to purchase the tank from the outgoing supplier, who is obliged to accept a ‘backstop price’.


The evidence indicates that competition within telephony markets has increased since the introduction of number portability. Lyons (2006) reports on a study of mobile number portability (MNP) based on 38 countries from 1999 to 2004; the author finds that consumer switching increases when mobile numbers are portable and the switching process takes less than five days, but not if it takes longer6.

Another type of portability relates to firms not having the same information about rivals’ customers as existing suppliers. Repeated interaction between customer and supplier improves the existing supplier’s information about the consumer’s attributes in a way which is not readily available to a rival. Financial services and insurance provide two obvious examples. This information could be used to lock-in consumers and to hold on to the more valuable consumers, leaving rivals and entrants to attract only those who are less valuable (see Box 6.6 for an example).

It is noticeable that, in the UK, remedies to encourage switching behaviour have up until now been used almost exclusively in sector-regulated industries. It may be that the effects of such remedies are still sufficiently uncertain that the presence of a sector regulator with specialist knowledge of the industry is required to ensure that any adverse effects are detected early.

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6.6 Evaluating remedies

As Box 6.7 demonstrates, in the case of imposed price transparency, intervention can have consequences beyond those that were intended. It is, therefore, vital to be able to assess the impact of a proposed remedy both on firms and on consumers. However, the trouble with remedies designed to address perceived behavioural shortcomings is that consumer responses to these may be difficult to explain or to predict using conventional methods. Where sufficient quantitative data is available, we may be able to use econometric methods but, in doing so, we must be sensitive to the assumptions implicitly made about consumer behaviour. Some of the issues arising from these assumptions, and how they might be treated, are discussed in Box 6.8.

Can price transparency backfire?

While price transparency can help consumers make better choices, it is well know that it can also help firms coordinate their pricing decisions, as a result of which the prices consumers must choose between are higher. What is less well appreciated is that if groups of customers differ in the extent of their rationality, then intervention aimed at helping one group of consumers can have a detrimental effect on another group. To see this, consider a market in which firms have learnt to discriminate between those consumers who are active and well-informed and those who are inactive and poorly-informed, such that the former face a lower price than the latter. Now suppose that price transparency is introduced, exposing the inactive group to the lower price they could be paying with a view to stimulating greater activity on their part. The case for introducing greater transparency is predicated on the belief that the inactive group can learn something to their advantage from the price charged to the active group. Yet if this is, indeed, how the inactive group respond to greater transparency, a link has been created between the prices charged to the two groups. The lower price offered to the active group may put downward pressure on the price offered to the inactive group. The increased transparency may then lead the seller to raise the price it charges to the active group to reduce the price-cutting pressure emanating from the hitherto inactive group.
Econometric approaches to the assessment of markets before and after behavioural remedies
Franco Mariuzzo

How useful are econometric methods in assessing a market before and after a proposed behavioural remedy? Do they adequately enable an authority to evaluate how competition and consumer welfare may be affected by the intervention? A variety of methods is available that closely follow the standard approach to merger remedies. However, these methods rely on strong assumptions of rationality. In the real world, a significant number of consumers may be boundedly rational or have non-standard preferences; under these conditions, there is the danger of producing biased measures of consumer welfare and thence second-best solutions. But all is not lost. A deeper understanding of bounded rationality, once it is incorporated into econometric models, can enhance the transferability of conventional methods of analysis, thereby enhancing our ability to assess behavioural remedies.

Econometric analyses of remedies often turn to simulations because of a lack of data post-intervention. But, compared to the analysis of a merger remedy, the counterfactual in the case of a behavioural remedy is more complex and demanding, for it is not obvious ex-ante how the parties will respond to that remedy. In effect, we are unable to correctly model the random utility that characterizes available estimation techniques, with implications for the authority’s decisions, as the following example demonstrates.

Let us suppose that, as a first step, an authority is seeking to assess the existing level of consumer welfare in a market characterised by non-standardised products and under the conventional assumptions of rationality. Consider the classical discrete choice logit specification, where it is assumed that preferences are homogeneous and the only source of consumer heterogeneity is encapsulated in the random part of the utility function. This part of the utility function includes a variable that represents those product characteristics that are observed by consumers and firms but which are unobserved by the econometrician. To highlight the potential problem of bounded rationality, we can decompose the unobserved product heterogeneity $\xi$ into the sum of two random variables: a first variable which captures the pure unobserved heterogeneity, $\xi^1$, and a second factor which embeds the idea of bounded rationality, so that we have: $\xi = \xi^1 + \sigma \xi^2$. We suggest that failure to account for this second factor generates a misleading picture of consumer preferences and behaviour and thence the level of consumer welfare.

The solution lies in seeking to grasp the nature of $\xi^2$ and incorporating this into the model. Most of the time, it is beyond us to find data that would allow bounded rationality to be modelled, leaving this as an issue to be unraveled in the laboratory. There are, however, some situations where a combination of the ‘right’ assumptions and good data (say, via surveys) does make it possible to estimate $\xi^2$ and therefore for the authority to more accurately assess consumer welfare in a market before and after a behavioural remedy.
6.7 Conclusion

The key lesson from this chapter is that if consumers are willing and able to process information, then remedies that aim to improve consumer information either directly or indirectly would be the most powerful. Well informed consumers are typically best able to make appropriate decisions and they put pressure on firms to deliver what they want at competitive prices.

But this is clearly a big ‘if’. Where no consumer is willing and able to process information, the remedy will have to be paternalistic and protective. The success of this depends on the extent to which the intervening agency can determine what the consumer wants and then on the ability of the remedy to deliver this. Where some but not all consumers are able and willing to process information, the more interventionist the remedy, the greater the potential to harm active consumers by reducing what is on offer, making it less likely that they will be able to secure their preferred choices. Strongly interventionist remedies also run the danger of increasing moral hazard as more and more consumers ‘switch off’, further exacerbating the need for remedies. The difficulty with markets where some but not all consumers are willing and able to engage fully with the market is to judge, first, whether the behaviour of active consumers benefits those who are inactive and, second, if not, whether the two groups can be segmented so that the intervention can be focused solely on the inactive part of the market without imposing any negative externalities on the active part. However, since consumers who are fully insured from mistakes and who know this to be the case are less likely to be active learners, where the costs of mistakes and learning are not too large, general consumer education may be more effective than specific protection measures.

As we have observed in this chapter, some firms will spontaneously remedy a situation themselves. It therefore becomes important to identify such situations and distinguish them from those where it really is necessary and desirable to intervene. In the latter situation, it should be noted that remedies can be costly for firms and agencies to administer. Costs will typically be passed on to consumers or tax-payers and should, therefore, be accounted for carefully.

Further reading

For further discussion of the issues raised in this chapter, see:


Further discussion of the issues raised in Box 6.7 appears in:


And further discussion of the issues raised in Box 6.8 appears in:

Chapter 7

Behavioural Remedies and Cost Benefit Analysis: A Cautionary Note

Michael Harker & Judith Mehta
Chapter 7

Behavioural Remedies and Cost Benefit Analysis: A Cautionary Note

Michael Harker and Judith Mehta

This chapter takes a close look at the behavioural remedies to have emerged from the literature of *behavioural law and economics*. A number of issues are raised including the potential for behavioural remedies to be challenged in the courts, the danger that unintended consequences will result from remedies, and the difficulties associated with assessing welfare before and after an intervention. The chapter also points to conditions under which it may – or may not – be necessary to intervene.

“…in a world in which many consumers are characterised by bounded rationality and/or incomplete or inconsistent preferences… the case for intervention then becomes more difficult to prove, and the potential for agencies to make mistakes is increased…”

7.1 Introduction

Recent years have seen considerable enthusiasm for the use of behavioural remedies to deal with the perceived problems resulting from the bounded rationality of individuals. These remedies often take the form of *weak paternalism* (see Box 7.1). Under the heading of ‘behavioural law and economics’, legal academics have drawn on insights from the behavioural economics literature to suggest that interventions supported by law can be used to steer individuals towards making choices which make them better-off (see *debiasing through law* in Box 7.1)\(^1\). There are, however, a number of potential gaps in this emerging corpus of work which need to be highlighted. In particular, the literature tends to underplay the importance of the need to conduct a rigorous cost-benefit analysis of remedies before interventions in markets can be justified.

This problem has not gone unnoticed. The requirement of ensuring that remedies can stand-up to being scrutinised in this way is not only increasingly a legal requirement, but also stems from principles of good governance, and from the imperative that policy-makers demonstrate that interventions increase the welfare of consumers, measured in an objective, transparent and verifiable way.

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Weak paternalism: persuading people to act rationally

Recent years have seen the rise to prominence of a family of approaches to policy in response to bounded rationality. These approaches, while different in emphasis, have common currents running through them; they are: libertarian-paternalism, more commonly known as ‘nudging’, asymmetric paternalism, and debiasing through law. At the core of these approaches is the idea that, through relatively modest interventions, boundedly rational individuals can be persuaded to act rationally. Since such interventions do not involve restrictions on choice, all three approaches claim to create benefits for the boundedly rational individual while imposing little or no harm on the rational individual. On these grounds it is argued that they offer ‘paternalism with liberty’ (Sunstein, 2006).

To flesh out ideas, consider these summary examples, one from each approach.

Libertarian paternalism

First, Thaler and Sunstein (2003) consider the problem posed by the perception that employees are inclined to under-save for their retirement. They point to how a tendency to inertia amongst employees can be exploited by changing the default option with respect to retirement savings schemes: instead of having to elect in to a scheme, employees are automatically enrolled unless they specifically choose otherwise. They report that where this alteration to the choice architecture has been put into practice, the result is a dramatic increase in enrolment with only a few employees opting out. Thus, the policy appears to be successful in propelling consumers deemed to be boundedly rational towards the kind of behaviour judged to represent an improvement in their welfare.

Asymmetric paternalism

Then, Camerer et al (2003) point to how the decision by many people to participate in lotteries is underpinned by an unrealistic sense of the chance of winning. They suggest that, where people have a limited ability to process low probabilities, they would be helped by a policy requiring prominent posting of information about the odds of winning a lottery and of the real payoffs. Such information is required to take the form of graphical devices, metaphors or relative-odds comparisons which the boundedly rational individual will find easier to process.
Chapter 7: Behavioural Remedies and Cost Benefit Analysis: A Cautionary Note

7.2 Lost in translation: From behavioural economics to behavioural law and economics

A few points need to be made plain at the outset. We are not suggesting that behavioural economics cannot provide valuable evidence concerning consumer behaviour; rather, we argue that caution is required when assessing the evidence, especially when it is gathered in the laboratory and there is a need to translate findings and develop the implications for the more complex environment of real world markets and consumers. In particular, we need to be cognizant of the potential for policy errors and unintended consequences. This is true of all interventions, including those on the supply-side designed to treat market failure. However, the problems are more acute when there is a departure from the neoclassical model of behaviour and we are confronted instead with consumers who either display biases in decision-making and/or who have unstable or inconsistent preferences. Faced with such a complex picture of consumer behaviour it is all the more difficult for policy-makers and agencies to design remedies which make consumers better-off in a manner which is capable of standing up to meaningful scrutiny.

Box 7.1 continued

Debiasing through law

For their part, Jolls and Sunstein (2006) point to the observation that, as a result of optimism bias, many consumers believe potentially harmful products to be substantially safer than they actually are. The outcome of the consumption choices of such consumers can be that they voluntarily expose themselves to a greater degree of risk than would be the case if they had more accurately assessed the products at issue. One of Jolls and Sunstein’s proposed remedies exploits the availability heuristic, which refers to the observed tendency for people to assess the probability of an event occurring by the ease with which instances of that event can be brought to mind. Thus, they suggest that the law requires firms to provide a truthful account of the harm which may result from the risky product in the form of concrete, narrative information depicted in particularly graphic or dramatic terms; framed in this way, such information is likely to resonate more strongly with boundedly rational individuals and be easier to process than statistical information.

For an exposition of all three approaches to bounded rationality that brings out both their similarities and their differences, see:
See also:
Legal challenge: the case of Barclays v the Competition Commission

The potential problem of legal challenges to behavioural remedies is nicely illustrated by the decision of the Competition Appeal Tribunal in Barclays v Competition Commission. The court in this case overturned the decision of the Competition Commission (CC) to restrict the purchase of payment protection insurance (PPI) at the point of sale of credit products. The problem here related to consumers paying insufficient attention to whether they actually wanted the PPI product which they were being offered, and if they did want a PPI product, the availability of alternatives. In addition to informational remedies, the CC imposed a mandatory cooling-off period designed to ensure that consumers had an opportunity to reflect upon the product on offer and the availability of competing products. The relevant statute did require the CC to conduct a rigorous cost-benefit analysis, but the court found that this fell short of the legal test. What is striking is the particularly high standard of proof the CAT required of the CC which included “quantification, evaluation and the analysis of causation, sensitivity and risk”. Furthermore, it held that “the more intrusive, uncertain in its effect… the more detailed or deeper the investigation” must be.


7.3 The potential problem of legal challenge

High standards of proof, as in the case described in Box 7.2, can benefit firms, especially in the face of inequalities of resources. Indeed, firms have both the incentives and the resources to search for empirical evidence with a view to undermining the case for intervention. This search for evidence has a ‘ratchet effect’, increasing the evidential burden faced by the agency seeking to intervene. The firms’ resources may be considerable; and they have an incentive to search for such evidence up to the point where the cost of searching is equal to the loss of profits that would result from the intervention. Furthermore, as we discuss below, firms will often enjoy informational advantages over regulators.

7.4 Unintended consequences

Issues of legal proof become very much more complex when faced with consumers whose decisions cannot be explained by a model of behaviour that assumes rationality. However, the problems are not limited to the potential for legal challenge. When we start to take into account the complexity of behavioural traits on the part of consumers, it becomes more difficult to judge whether an intervention would actually improve outcomes for them. In particular, there is the danger of unintended consequences.

Let us consider some examples. Cooling-off periods are often suggested in circumstances where consumers may act in an emotionally ‘hot’ state, for example, when decision-making is motivated by excitement, fear or impulse. The use of such devices may well have advantages for consumers, and result in less pressure being exerted on them by firms at the time a consumption decision is being made. However, other types of bias may be triggered by the intervention, leading to outcomes for consumers that are possibly worse when compared to the situation in which there is no intervention at all. Thus, cooling-off periods may result in consumers being less reflective at
the time of signing a contract and/or the length of the cooling-off period may be inversely related to the likelihood of cancellation as a result of consumer inertia. Moreover, interventions designed to counter the biases of boundedly rational consumers (such as optimism bias and hyperbolic discounting) may harm ‘smart’ consumers. Consider the common use of credit cards with ‘teaser rates’ (introductory interest rates charged to customers during the initial stages of a loan or credit). Such rates may entice consumers to take out credit by exploiting certain types of biases (in particular, optimism bias) with respect to the likelihood that they will pay off the credit before the expiry of the introductory offer. At the same time, where (‘smart’) consumers do switch between providers before the expiry of the introductory offers, they can make significant savings on the cost of servicing their debts.

So intervening to deal with consumer biases may actually diminish the incentives of consumers to search for and switch to different products, such that the rewards for smarter consumers are reduced, as well as reducing the likelihood that boundedly rational consumers learn from their mistakes and apply such learning to other market contexts.

One of the key messages to come from the behavioural economics literature is that consumer behaviour is highly contextual and multi-dimensioned and that, before we can be confident that intervening will actually enhance the position of consumers taken as a whole, it is necessary to have robust evidence. This usually comes at a significant cost.

7.5 But is it really necessary and desirable to intervene?

While the behaviour of consumers in the real world is complex and can be difficult to predict, there may well be circumstances in which intervention is unnecessary because (some) firms have an incentive to correct biases by providing salient information and/or educating consumers with respect to their biases. There is a strong case for not intervening in such circumstances because firms are likely to have a better understanding of consumer behaviour in the markets in which they operate than do regulators or policy-makers. Indeed, there is the potential for regulators to impose information disclosure requirements on firms which result in the provision of information to consumers in forms which cannot be readily assimilated by them.

Given the informational asymmetries between firms and regulators, firms may be better than regulators at ‘correcting’ consumer errors. Under these conditions, understanding the incentives of the firms is crucial. Thus, before intervening it is necessary to distinguish those situations where firms (or, at least some of them) have an incentive to counter consumer biases from those where firms have an incentive to exploit consumers. Consider forms of advertising where...

the firm compares its own product with those of competitor firms, and where there is genuine heterogeneity with respect to the quality of products, for example, in terms of safety. It may well be in the interests of ‘high quality’ firms to educate consumers in the importance of safety with a view to countering the potential of consumers to focus exclusively on price or to disregard the importance of quality (due to optimism bias). Of course, there is no such incentive where the bias, and its manipulation, is in the interests of all firms. Again, consider credit cards and the tendency of many consumers to over-estimate their ability to pay-off their debt in the future, as in the case of optimism bias. In many cases this will benefit all firms and there will be no incentive on any of them to attempt to debias consumers.

In many areas of regulation, there is the danger of regulatory capture. Many of the key proponents of behavioural remedies recognise this to be a potential problem. Jolls and Sunstein, for example, recognise that "regulators are often self-serving or vulnerable to the interests of powerful private groups". For example, it is not difficult to envisage a situation where the industry argues for a particular kind of intervention under the guise of educating or informing consumers but the intervention would actually result in raising barriers to entry or facilitating tacit collusion (for example, by increasing price transparency). There is also the danger that policy-makers manifest their own biases (see Box 7.3) and/or that behavioural remedies reflect the preferences of policy-makers rather than steering consumers towards those outcomes they would have settled on if they were rational. These and our earlier observations all underline the importance of subjecting behavioural remedies to rigorous investigation and assessment. The question then arises of how to measure the costs and benefits of intervening, especially with respect to welfare.

Are politicians and regulators free of behavioural biases? Box 7.3

Chris Hanretty

When consumer behaviour is characterised by persistent behavioural biases, then the question of remedies arises. However, remedies have to be designed and implemented, and there is no guarantee that those whose task this is are also free from behavioural biases. The literature from political science and public administration has identified two broad areas in which behavioural biases may play a role: the temporal inconsistency of politicians’ preferences, and the bounded rationality of politicians and regulators in the distribution of attention and the search for new policies.

The problem of temporal inconsistency can be stated simply. Politicians like investment in infrastructure: new rolling stock that reduces over-crowding on the railways; new windmills that reduce dependence on fossil fuels, and so on. At the same time, because they like winning votes from a grateful populace, politicians like keeping real prices low: lower train fares, particularly for season ticket holders; lower energy bills, particularly for swing voters, and so on. These two objectives must be traded-off against one another, because infrastructure investments come at a cost. But rather than pick a point on the trade-off curve and stick to it, politicians engage in temporal inconsistency: they encourage infrastructure investment between elections, but cap prices in the run-up to elections. This temporal inconsistency spooks investors, resulting in lower investment and the potential for worse outcomes all round.

5 See 6.2 for further discussion of situations in which firms can have a strong incentive to correct consumer errors
7.6 Measuring welfare outcomes

One of the central lessons of behavioural economics is that willingness-to-pay, the standard approach to the measurement of welfare, cannot be relied upon in many contexts because findings depend upon the way in which decisions are framed. For example, there is evidence that people often attach a higher value to a product they currently possess compared to the amount they would be willing to pay to purchase it (the endowment effect). Whenever the context of decision-making impacts on the value of the product to the individual, willingness-to-pay cannot be regarded as a robust measure of welfare. Under these conditions, the question arises of how welfare effects can be measured.
With respect to homogenous goods (where there is little or no difference between products in terms of quality or other attributes), the situation is clear: a framing effect which results in the consumer choosing the higher price option leaves that individual worse-off. This is the case, for example, with ‘spurious’ price dispersion. Where there is genuine product differentiation and non-price factors are important to consumers, the heterogeneity of consumer preferences make it difficult, if not impossible, to determine what is a rational choice (if, indeed, there is a unique one).

So far the behavioural law and economics literature has failed to offer a convincing answer to the problem. Sunstein and Thaler do point to the use of ‘indirect proxies’ for welfare; for example, they propose asking the question: what would consumers choose if choices were required and revealed? This still leaves open the danger of policy-makers mapping their preferences onto consumers. As others have observed, perhaps the behavioural law and economics literature has some ground to cover before it can claim to have an objective and transparent methodology for measuring the welfare implications of intervening.

### 7.7 Conclusions

We would argue that legal academics, policy makers and regulators are wholly correct when they use insights from behavioural economics to inform the choice and design of market interventions. However, findings from research undertaken at CCP lead us to urge caution. The difficulties associated with the conduct of rigorous and reliable cost benefit analysis tend to increase in a world in which many consumers are characterised by bounded rationality and/or incomplete or inconsistent preferences. The case for intervention then becomes more difficult to prove, and the potential for agencies to make mistakes is increased. Consumer behaviour is highly context dependent, and intervening with a view to helping some consumers may harm others, even ‘smart’ consumers. In some markets, it may well be the case that the errors that consumers make will not be sustained in the long-run due to countervailing forces such as consumer learning or the incentives of some firms to correct consumer biases. Moreover, just as consumers can make errors which adversely affect the outcomes of their transactions in markets, so regulators and policy makers may also be flawed in decision-making; they may be manipulated by the industry, or they may be drawn to imposing their own preferences on consumers. These dangers reinforce the need for robust, objective and transparent methodologies for the measurement of welfare. These have yet to be developed in the literature of behavioural law and economics.

### Further reading


Chapter 8

Modelling Naïve Consumers

Amelia Fletcher
Chapter 8
Modelling Naïve Consumers
Amelia Fletcher

Green shoots are emerging of a new body of economic literature, one which takes the basic tenets and mathematical modelling approach of game theory but combines this with alternative assumptions on decision-making in order to examine how this changes the analysis. Some of this literature has been touched on in previous chapters. This chapter provides a broad overview.

"Consumer law enforcement has, in the past, involved relatively little economics, perhaps partly because it was difficult to see how the standard economic literature was relevant, based as it was on hyper-rational consumers. The fit with behavioural economics is far better, but its use in actual cases is still nascent."

8.1 Introduction

For at least 30 years, economics students have been trained to analyse market competition using the techniques of game theory. These involve modelling the process of competition as a game between firms and consumers. The firms seek to maximise their profits by winning consumers; the consumers in turn seek to maximise their utility. Game theoretic models have generated important insights and continue to form a solid basis for much market analysis. They do, though, typically have one important flaw. They have relied on the sophisticated hyper-rationality of both firms and consumers.

The classic ‘signalling’ model of advertising, developed by Milgrom and Roberts in 1986, provides an illustration. The story here is not that advertising alters consumers’ preferences, as the psychology literature on framing effects might suggest. Rather, advertising works because it enables firms to signal credibly that they are high quality. How do they do this? Highly sophisticated and rational consumers are assumed to do some calculations. They work out that only high quality firms, who expect to generate repeat sales, would have the incentive to invest in such advertising. Hyper-rational firms know this and set their advertising levels at exactly the level which just generates these effective quality signals.

While there are clearly elements of truth to such a story, the growing body of evidence on behavioural biases, and their prevalence in both individual and group decision-making, raises questions for such hyper-rational models. Are the assumed levels of sophistication realistic? And if not, how do the results of the models change as more realistic assumptions on consumer and firm behaviour are incorporated? What does this mean for real market outcomes?

Economists are starting to address these questions, and we can see a new literature emerging which allows for behavioural biases. To date, the vast majority of this new literature focuses on relaxing the assumption of hyper-rational consumers. This is no doubt partly because consumers more obviously exhibit behavioural biases than do firms. Looking forward, though, we might also expect a wider literature to emerge which incorporates firms’ behavioural biases.

In respect of consumer biases, the key novelty factor in these new models is the assumption made that some or all consumers are naïve. This naivety can take different forms, from simply being boundedly rational, and therefore unable to compute perfectly what to expect of profit-maximising firms (as was assumed in the signalling model above), to exhibiting a variety of specific behavioural biases.

It is possible to discern three key strands in this emerging literature:
- The first effectively extends a pre-existing literature on search and switching costs.
- The second extends an earlier literature on asymmetric information.
- The third is arguably more novel and focuses on the implications for market outcomes of behavioural biases which result in consumers failing to estimate correctly their own demand or willingness to pay.

### 8.2 Search and switching costs: introducing behavioural biases

Economic models which incorporate behavioural biases may be relatively new, but there is a well-established literature that analyses competition in markets where consumers face search costs (the costs of searching across products or suppliers) or switching costs (for customers already with a supplier, the costs of switching to another supplier).

These models generally take search and switching costs as given; the underlying reasons for them are not of concern. It does not matter whether they result from a rational assessment of the material cost of time and travel involved in search or switching, or whether they result from behavioural biases such as status quo bias or choice overload. The costs are simply plugged into the models. Consumers then optimise their search or switching behaviour, taking these costs into account, and firms optimise their pricing and product strategies accordingly.

What happens when these models are extended to analyse switching and search costs explicitly as the result of recognised behavioural biases? It turns out that this creates an important additional twist: that firms may then wish to influence these costs.

As discussed in earlier chapters (see Chapters 3 and 4 in particular), consumer decision-making can be influenced by the extent of complexity in the products and prices on offer. Faced with such complexity, boundedly rational (or ‘naïve’) consumers will find it harder to compare different offers, and this in turn creates customer inertia. Why search around for different deals if it is then impossible to work out whether or not they are actually better?

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2 See Chapter 4 for some of the sources of search and switching costs.
What if we now suppose, as seems broadly realistic, that such consumers face firms that are able to control their own degree of product and pricing complexity? Modelling this scenario generates three key results.

- Firms may deliberately increase product and price complexity, in order to reduce the extent of searching and thereby soften competition.

- Firms may make their products and pricing complex in different ways from each other, if possible, since this makes them even less easily comparable and further softens competition.

- Allowing more firms to enter the market may make things worse, not better. Where firms face additional competitors, they may pursue ever greater complexity in order to limit comparability between any two firms. This further reduces the quality of consumer decision-making, softens competition and increases firms’ profits.

**Policy interventions to address strategic over-complexity**

If firms act to soften competition through the strategic adoption of over-complex pricing or products, it is far from obvious that standard competition law can easily address the issue, especially given that more players can make things even worse. Consumer law or regulation may, however, have a role to play. Possible examples include:

- The requirement within the Consumer Credit Regulations around use of a typical APR in credit advertising is an example of a regulation designed to help consumers choose across products on a (roughly) standard basis when the underlying interest rate structures can potentially be complex.

- The UK Energy regulator Ofgem’s current proposals to restrict energy suppliers to offering no more than four core tariffs per fuel type, which is designed to reduce the vast and complex array of alternatives that was previously available. (For further discussion of policy proposals designed to address low levels of switching activity in energy markets, see Chapter 5.)

It will, of course, be important to evaluate the impact of any intervention as a guard against unintended consequences.

A potential further effect, as yet under-analysed in the extended search literature, is that firms may wish to limit the development of new business models where these are designed to overcome behavioural biases and thereby enhance search. For example, price comparison websites can reduce the problems associated with pricing complexity. By automating the required calculations, these websites can provide consumers with a more easily comparable set of total prices, across suppliers. Such a reduction in complexity might be expected to enhance competition. As such, we may observe firms that rely on complex pricing seeking actively to keep their products off price comparison websites, or to frustrate the ability of such websites to provide a comprehensive comparison of pricing, for example, by holding back information (say, on additional fees or unexpected terms) until consumers have clicked through to their site.
For similar reasons, suppliers may have an incentive not to sell their products online, if they believe that consumers will face less inertia in searching online than they do when shopping around between bricks and mortar retailers offline. Concerns about such behaviour may partly explain the strong stance taken by the European Commission, in its most recent guidelines on vertical agreements, against distribution agreements which restrict bricks and mortar retailers from selling online.

The discussion so far has focussed on search costs, but similar results hold for switching costs. If firms can make the switching process more complex, then they will have an incentive to do so, since this effectively increases switching costs and thereby reduces competition.

Moreover, the existence of naïve consumers can have a further implication for modelling markets characterised by switching costs. The standard literature tells us that in markets with switching costs firms will tend to charge customers cheap introductory prices, in order to win their custom, and higher prices thereafter once they are tied in. It is possible to think of plenty of examples, including low price printers which have to be fed with expensive inks; cheap initial deals for utilities followed by higher prices once the deal period is over; and retailers that sell domestic electrical goods at low margins but then, once the customer is at the till, try to sell them higher margin extended warranties.

Where consumers are hyper-rational they will be able to deduce upfront that this so-called ‘bargain then rip-off pricing’ will occur, and will make their choices accordingly. However, suppose that at least a proportion of customers are naïve, in that they simply make their choices on the basis of the prices they observe in the market. In this case, we find that firms will have an incentive to reveal only their initial prices and to conceal (or ‘shroud’) the fact that they will charge higher prices in later periods. In the last of the above examples, we should not be surprised to find retailers of domestic electrical goods strategically choosing not to reveal prices of extended warranties until the consumer is at the till. This works to the disadvantage of naïve consumers.

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**Ofcom’s action against ‘rollover’ contracts**  
Box 8.2

The UK telecoms regulator, Ofcom has recently taken action against the use of ‘rollover’ contracts by UK telecoms companies. Its concern was that such contracts were artificially raising switching costs by making the process more complex and potentially expensive.

Rollover contracts are fixed term contracts, with penalties for early cancellation, which re-start automatically (roll over) when the fixed term is reached unless the customer actively opts out of the renewal. Opting out has to be done within a short window if the consumer is to avoid cancellation charges. In reviewing this type of contract, the UK communications regulator, Ofcom, found that few consumers were sufficiently sophisticated to opt out at the right time, and that the contracts therefore unduly limited switching, which in turn raised barriers to effective competition. Ofcom announced that all communications providers would be required to remove rollover contracts from the market by the end of 2012.

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3 See Chapter 5 for further discussion of the strategic deployment of shrouding.
8.3 Asymmetric information: introducing behavioural biases

As is the case for search and switching costs, there is also a well-established economic literature on asymmetric information. This examines the implications for market outcomes where suppliers know a lot more about the true quality of the product they are selling than consumers do (or conversely, in credit or insurance markets, where consumers know a lot more about their true own riskiness than the supplier does).

Where consumers cannot tell the true quality of a product they face, they have to form beliefs about its likely quality. The heroic assumption lying behind the full rationality models which make up the existing literature is that consumers are able to form a rational belief about quality, through a sophisticated calculation based on knowledge about the supplier’s range of possible ‘types’. On average, full rationality carries the implication that these expectations will prove correct.

In practice, however, consumers are unlikely to engage in this sort of cognitively demanding analysis, and they may be surprised by the quality they receive. Consumers typically place a lot more trust in suppliers, especially those with which they have had past experience, than might be predicted by the hyper-rational models. They also exhibit status quo bias, whereby consumers stick with their current supplier so long as it continues to offer acceptable quality at an acceptable price, without reviewing whether a better deal could be achieved in the market.

Perhaps surprisingly, allowing for these behavioural biases can have important positive effects. A problem that arises in standard models is that rational consumers may refuse to trust the high quality promises of sellers, because they predict that rational sellers will have an incentive to provide poor quality to any consumer who does trust them. This so-called ‘moral hazard’ problem can result in markets failing to deliver high quality products or even breaking down completely. Now suppose, instead, that firms face naïve consumers who adopt a simple but plausible heuristic: to buy from the same supplier so long as it continues to offer acceptable quality at an acceptable price, without reviewing whether a better deal could be achieved in the market.

There may, though, be important limits to this positive effect. Experimental evidence suggests that, while consumers place substantial weight on a firm’s track record for quality when prices are fixed, they find it hard to weigh up quality and price when prices are variable. In this circumstance, they tend to place much more weight on price, than on quality. This results in very low prices but sub-optimal quality, which is bad for both consumers and firms.

Moreover, there are other less appealing implications of introducing behavioural biases into these asymmetric information models. Suppose, for example, that consumers are faced with a multi-dimensional product with several different facets. It is natural for consumers, faced with a difficult multi-dimensional decision between suppliers, to focus on just one dimension and choose on this basis, assuming that the chosen dimension is a fair representation of the other dimensions. This is known as representativeness bias. Where rational suppliers face naïve consumers with this bias, however, they will actively exploit it by making the true value for money offer very different in each dimension. They win consumers who happen to look at the dimension in which they offer good value for money, and they then make money in the other dimensions. More competition can even exacerbate this effect, with firms becoming even more variable across the different product dimensions.
A similar result occurs with advertising. Where advertising focusses on just one dimension of a product, and where consumers assume that this dimension is representative of the product as a whole, suppliers will have an incentive to set quality higher than is optimal in this particular advertised dimension but lower in other dimensions.

Behavioural biases can also limit the effectiveness of cancellation rights as a device to allow firms to commit credibly to providing high quality. With rational consumers, suppliers have the option of offering cancellation rights if the consumer is not happy with the product after purchase. Such an offer works to align the incentives of firms (who don’t want to have to deal with lots of product returns) with consumers (who rationally calculate the likelihood that firms will offer them poor quality, given the impact on likely product return rates). But what if consumers are naïve, and underestimate the likelihood that they will return the product? In this case, consumers will give less weight to any cancellation rights and firms will therefore give less generous ones. Firms’ incentives to provide high quality will be correspondingly reduced. Interestingly, in such a circumstance, a legal minimum for cancellation rights may well be positive for welfare.

8.4 Market outcomes when consumers mis-estimate their own demand

The third area of the new literature relates to behavioural biases that affect consumers’ estimation of their own willingness to pay, and how this in turn can affect firms’ strategies and market outcomes. Two key sets of biases have been considered in the literature. The first includes anchoring effects and loss aversion, while the second set relates to time-inconsistent preferences: hyperbolic discounting, self-control and over-confidence biases.

Anchoring effects and loss aversion

It is well recognised that consumers’ preferences can be affected by the way in which offers are framed. One particular form of framing effect relates to reference points; consumers form a reference point and will anchor on this in terms of comparing all other offers to it (see Box 8.3). This anchoring effect can combine with loss aversion, which is the tendency for people to be more averse to losses than they are attracted to equal size gains. Where this is the case, consumers will react more to losses relative to the reference point (such as higher prices) than they will to gains (such as price reductions). This can in turn mean that consumer choice is affected by the prices of other products even if the consumer was never going to buy this product.

The implications of such anchoring effects for market outcomes depend to some extent on how the reference point gets set. Where consumers have a specific fixed expectation of what prices should be, these effects can lead to price stickiness, with firms not wishing to diverge from that price expectation. Such price-stickiness can be positive for consumers, if it prevents an upward drift of prices. However, it can also create problems if it prevents prices from moving effectively to reflect changes in market fundamentals, such as increased costs of supply.

On the other hand, suppose that consumers develop their price expectations through the search process. In this case, we may observe strategic price dispersion in the market, with firms exploiting the fact that the existence of high prices increases consumers’ willingness to pay for lower priced products. This may, for example, explain why stores sometimes carry expensive variants of products which they never expect to sell.
In general terms, the models show that anchoring effects and loss aversion in respect of price intensify competition, but that the same effects in respect of quality are more complex:

- Competition on price is intensified because consumers have an added preference, relative to standard models, for prices that are low relative to others. This provides an additional incentive for firms to try to undercut their competitors’ prices.

- Where quality variation is ‘vertical’ (that is, different products are simply better or worse than each other, and consumers agree on the ranking), then competition will also tend to be intensified by these effects. Firms will try harder to beat each other on quality in the face of such effects.

- However, where quality variation is ‘horizontal’ (that is, products simply have different characteristics, with consumers differing in their preferences between them), then these effects may instead soften competition. This occurs because the combined effect of the anchoring effect and loss aversion acts to increase perceived product differentiation; once consumers have looked at one product, and thought about owning it, they consider other products to be more differentiated than might be predicted in a standard model.

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**Anchoring effects and replica football kit**

An arguably extreme example illustrates the impact that anchoring effects may have on consumer decision-making. Consider a Chelsea fan who is considering buying a Chelsea replica football shirt. That fan might well prefer to eat a football rather than to buy a Manchester United shirt. Nevertheless, that consumer’s willingness to buy a Chelsea football shirt for £50 may well be reduced if he has previously seen that Manchester United shirts are available for £40. Suddenly the Chelsea kit seems less good value for money, and he may be less likely to buy. As such, the demand for a Chelsea replica shirt may be affected by the price of a Manchester United replica shirt, even if there is zero potential substitution by fans between the two products.

This raises an interesting question for competition policy. Should we be worried about price-fixing agreements even between non-competitors where this sort of anchoring effect may be prevalent?
Loss aversion may also create incentives for firms to engage in so-called ‘drip pricing’, whereby consumers only see the full price of a product over time. Where firms set prices on this basis, consumers are forced to choose between products before they see the full price. Having made their choice, they form an attachment to the chosen product and are then averse to changing their choice even once they are told the full price (see Box 8.4). This effect is under-modelled at present, but there are clear links with the shrouding literature discussed above. As in that literature, it is to be expected that firms favour this form of pricing partly because it tends to soften upfront price competition and partly because it can allow them to extract a higher price than would have been possible absent the loss aversion bias.

The OFT’s action against drip-pricing by airlines of payment card surcharges

In late 2012, the OFT announced that it had gained agreement from a number of major airlines to scrap payment card surcharges for paying by debit card. Prior to this, there had been an increasing tendency by a number of airlines to exclude these charges from the headline prices, in order to keep these headline prices low, and only to add them at the end of the process.

The OFT considered that this form of drip pricing was unlawful, and accepted undertakings in lieu of Court proceedings. In economic terms, the OFT was concerned that such charges were limiting the extent to which consumers were searching across airlines on price, which was in turn impeding competition. Consumers were effectively anchoring on the initial price, becoming attached in the process to the choice they had made, and then not wishing to search again when the true total price became apparent.

Time-inconsistent preferences: hyperbolic discounting, self-control and over-confidence

A final set of biases that have been identified as affecting market outcomes relate to time-inconsistent preferences. These can take various forms. Consumers may exhibit hyperbolic discounting, whereby they systematically over-weight their current utility and under-weight the future. They may also be over-confident about their own future behaviour, and then face self-control issues in practice when the time comes. Standard examples include consumers systematically expecting to be more likely to go to the gym or to be less likely to require further credit, in the future than in fact turns out to be the case. The first of these was discussed in Box 1.2 above. Effectively, consumers over- or under-estimate their own future demand. From a firm’s point of view, the rationale for the time-inconsistent preference may be irrelevant. The key thing is that they exist and can be exploited (see Box 8.5).

4 See Chapter 5 for further discussion of shrouding.
A variant on this theme can occur where consumers form a fair expectation of their own most likely future demand for a product, but underestimate the extent of possible variation around this expected level. An example might be energy usage, where consumers can form a reasonable expectation as to their likely future usage levels, based on past usage, but may well underestimate the extent to which changes in weather patterns can alter actual usage rates (a form of optimism bias). In such circumstances, firms may adopt a strategy of offering a low fixed fee for the expected usage level, which is apparently good value for money, but then setting unit charges that severely penalise over- or under-usage, for example through high fees for extra units and zero discounts for units not used.

8.5 Conclusions

The emergent behavioural economics model-based literature described above has already generated important insights, in particular around the ways in which firms will tend to adopt their strategies to exploit consumer behavioural biases. One interesting result is that more competition will not necessarily solve these issues and, indeed, increasing the level of competition can actually make things worse. As such, it is far from obvious that standard competition law has a particular role to play.

There is a far clearer rationale for both market-wide regulatory interventions, such as those arising from market investigations, and for consumer law. The consumer legislation on unfair contract terms and on misleading sales practices is particularly relevant to concerns related to framing and shrouding.

Consumer law enforcement has, in the past, involved relatively little economics, perhaps partly because it was difficult to see how the standard economic literature was relevant, based as it was on hyper-rational consumers. The fit with behavioural economics is far better, but its use in actual cases is still nascent. It is noteworthy that the OFT’s first successful use of such economic evidence in the Courts, in the form of an expert economic witness report, occurred only in 2011 (in the case of OFT v. Ashbourne Management Services Ltd, a case relating to gym membership contracts).
Moving forward, we might hope to see more use of behavioural economics in consumer cases, in market inquiry work, and also in designing regulation. It is noteworthy that the new UK Financial Conduct Authority has stated that it expects behavioural economics to be a key part of its tool kit in regulating financial markets, and it has recently published a preliminary paper on its approach.

Further reading


Index of terms appearing in chapters and the glossary

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