

How behavioral decision research can enhance consumer welfare: From freedom of choice to paternalistic intervention

**Rebecca K. Ratner · Dilip Soman · Gal Zauberman ·
Dan Ariely · Ziv Carmon · Punam A. Keller ·
B. Kyu Kim · Fern Lin · Selin Malkoc ·
Deborah A. Small · Klaus Wertenbroch**

Published online: 5 June 2008
© Springer Science + Business Media, LLC 2008

Abstract Decision-making researchers have largely focused on showing errors and biases in consumers' decision-making processes without paying much attention to the social welfare and policy implications of these systematic behaviors. In this paper, we explore how findings and methods in behavioral decision research can be used to help consumers improve their decision making and enhance their well-being. We first review select findings in behavioral decision research to explain why

This paper draws on discussions in a session “Helping Consumers Help Themselves through Choice” at the Invitational Choice Symposium in June 2007 co-chaired by Rebecca Ratner, Dilip Soman, and Gal Zauberman.

R. K. Ratner (✉)
Robert H. Smith School of Business, University of Maryland, College Park, MD 20742, USA
e-mail: RRatner@rhsmith.umd.edu

D. Soman
Rotman School, University of Toronto, Toronto, ON M5S 3E6, Canada
e-mail: Dilip.Soman@Rotman.Utoronto.Ca

G. Zauberman · B. K. Kim · F. Lin · D. A. Small
Wharton School, University of Pennsylvania, Philadelphia, PA 19104, USA

G. Zauberman
e-mail: gal@wharton.upenn.edu

B. K. Kim
e-mail: bkyu@wharton.upenn.edu

F. Lin
e-mail: fernlin@wharton.upenn.edu

D. A. Small
e-mail: deborahs@wharton.upenn.edu

consumers need help in decisions, and based on these findings, suggest various interventions that could be effective within the scope of libertarian paternalism. Ethics and effectiveness of the interventions are also discussed.

Keywords Behavioral decision research · Consumers · Interventions

1 Introduction

“We believe that the anti-paternalistic fervor expressed by many economists is based on a combination of a false assumption and at least two misconceptions. The false assumption is that people always make choices that are in their best interest. This claim is either tautological, and therefore uninteresting, or testable. We claim that it is testable and false—indeed, obviously false.” (Thaler and Sunstein 2003).

The goal of this paper is to explore how findings and methods from behavioral decision research can be used to help consumers improve their decision making, to enhance their own welfare or that of society as a whole. Behavioral decision research has largely focused on accumulating evidence of individuals' decision biases, successfully leading researchers to question the rationality assumption whereby people consistently make choices that maximize their self-interest. However, behavioral decision researchers have largely refrained from utilizing their understanding of human decision making to suggest how to improve decisions.

Consumers often make choices that are not necessarily good for them, and their mistakes provide clues that could facilitate the design of simple interventions that could help consumers avoid making problematic choices. Errors in choices arise from systemic cognitive biases, emotion, incomplete information, and the limits of cognitive capacity. We propose that some of these problems can be easily corrected through suitable simple interventions. Such interventions can be seen as a form of libertarian paternalism, a weak form of paternalism that guides consumers to be better off without necessarily restricting their choices (Thaler and Sunstein 2003).

D. Ariely
Duke University, Durham, NC 27708, USA
e-mail: dandan@duke.edu

Z. Carmon
INSEAD, Singapore, Singapore
e-mail: ziv.carmon@insead.edu

P. A. Keller
Tuck School of Business, Dartmouth College, Hanover, NH 03755, USA
e-mail: punam.a.keller@tuck.dartmouth.edu

S. Malkoc
Olin Business School, Washington University in St. Louis, St. Louis, MO 63130, USA
e-mail: MALKOC@olin.wustl.edu

K. Wertenbroch
INSEAD, Fontainebleau, France
e-mail: klaus.wertenbroch@insead.edu

In the following sections we illustrate how behavioral decision research may be leveraged to help individuals and society. We begin by discussing what behavioral decision research can say about why individuals go astray when making important decisions about issues that can have long-term consequences, such as decisions about nutrition, financial planning, whether to quit smoking, whether to adopt a health-enhancing product or service, and so on. Next, we ask what forms of interventions would be effective to impact consumer choice across these sorts of domains. We introduce a taxonomy of different types of interventions and discuss how effective and ethical these various interventions are likely to be. In Table 1, we list types of choice problems in which consumers tend to exhibit flawed decision making, as well as possible interventions to help them with these problems. These interventions are listed and discussed in order of increasing degrees of paternalistic intrusion.

2 Why do consumers need help?

When consumers make suboptimal choices, it is tempting to attribute their mistakes to personal characteristics (they were unmotivated, unable, or irrational) rather than to characteristics of the decision task (Jones and Nisbett 1971). Many findings from behavioral decision research, however, suggest otherwise. Even when people are motivated to make personally and socially desirable choices, external constraints in the decision process or aspects of the decision task can prevent them from choosing optimally. In this section, we document several reasons for why people go astray when making important decisions.

2.1 Neglected consequences of distributed choices

Some decisions are made several times a day, every day. For example, most people decide what and how much to eat on multiple occasions almost every day. The marginal impact of each decision occasion is negligible, as the consequences of these decisions only manifest themselves in aggregate (Herrnstein and Prelec 1991). Choosing not to exercise or save today will likely have virtually no lasting impact. In like manner, choosing not to exercise tomorrow will likely also have little impact, by

Table 1 Choice problem types that are characterized by flawed decision making and possible interventions to enhance consumer welfare, in order of increasing degrees of paternalistic intrusion

Choice problem types	Possible Interventions
Neglected consequences of distributed choices	Provide information
Intertemporal trade-offs and self-control problems	Provide decision tools: Change cognitive representation
Prediction failures	Tap emotion
Processing difficulties	Organize choice options
Emotion and deliberation-based distortions	Restrict choice options Add restrictive choice options Manage expectations

itself, on one's health. Each decision often involves only a single consumption occasion, and as a result people are often blind to the cumulative effect.

2.2 Intertemporal trade-offs and self-control problems

A hungry dieter who has been offered a pastry must make a trade-off decision: He can politely refuse the pastry while his stomach and taste buds protest. Or he can eagerly consume the pastry relishing the rich glaze and sweet filling. In the former instance, the costs of his decision are felt immediately, while the rewards may not be felt until weeks later. In the latter instance, the rewards of his decision are realized immediately, while the costs are realized later.

Such situations are commonly framed as tests of self-control, and people often “fail” these tests by making decisions that result in greater immediate gratification but also greater long-term costs. In what has been termed the present bias (O'Donoghue and Rabin 1999), people place disproportionate weight on outcomes in the present compared to outcomes in the future.

Loewenstein (1996) attributes the present bias to the overwhelming power of visceral factors, such as hunger or cravings, felt at the time of decision. These factors, he believes, distort the perceived utility of various forms of consumption. The perceived utility of consumption that satisfies or alleviates the visceral factors increases, while the utility of consumption unrelated to the visceral factors decreases.

Even in the absence of strong visceral factors, individuals show systematic cognitive and perceptual distortions of the present and future. Construal level theory asserts that benefits loom larger than costs in the future, but the reverse occurs in the present (Liberman and Trope 1998). Compared to the future, the present is associated with greater importance on feasible versus desirable attributes (Liberman and Trope 1998) as well as greater focus on the structural relationships among the attributes (e.g., degree of comparability; Malkoc et al. 2005). Thus, for individuals deciding whether to save in the present, the consumption they must forgo in the present is more salient than the additional consumption they can enjoy in the future. Resource slack theory (Zauberman and Lynch 2005) further suggests that people mistakenly perceive a surplus (i.e., slack) of resources in the future compared to the present. Thus they discount the future benefits they could get from sacrificing present resources, reasoning that those resources are needed more in the present than in the future (for public policy implications, see Lynch and Zauberman 2006).

2.3 Prediction failures

A stream of literature on what has been named “affective forecasting” documents several common mistakes people make when predicting how they will feel in the future. For example, they tend to overestimate the impact of future events on their emotional states and underestimate their degree of emotional adaptation to changes in their lives (Buehler and McFarland 2001; Gilbert et al. 1998). People often mispredict not just how they will feel, but also what they will do. It is common to believe that one can and will act differently in the future (e.g., “I can stop smoking later if I want to”), but such beliefs usually reflect overconfidence (Soman 1998; Zauberman 2003; Zauberman and Lynch 2005).

2.4 Processing difficulties

Individuals have limited cognitive capacity, and cognitive overload can occur when there are too many tasks competing for finite cognitive resources. In a recent field study, Soman (2007) asked people to record all decisions they made every day for 3 months. He found that the vast majority of decisions were fairly mundane—where to go for lunch, what to wear. More forward-looking decisions with long-term consequences were rarely reported. Soman (2007) suggests that making too many inconsequential decisions saps cognitive resources and, as a result, people can become too “burnt out” to devote sufficient cognitive resources to important decisions.

While most people would favor having more options in most contexts, more options also mean more information to process, greater demand for cognitive resources, and higher potential for cognitive overload. Indeed, having too much information and too many choices can lead to suboptimal choices (Gourville and Soman 2005), be demotivating (Iyengar and Lepper 2000), result in deferral of choices (Dhar 1997) and can lower satisfaction with choices (Gilbert and Ebert 2002), particularly when choice alternatives force individuals to make trade-offs. For example, Sethi-Iyengar et al. (2004) found that providing employees with too much information and too many fund choices actually reduced employee participation in retirement funds.

2.5 Emotion and deliberation-based distortions

The previous section described the potential downsides of having insufficient cognitive resources to devote to a decision task. However, it is also possible to devote too *many* cognitive resources to a task. Research suggests that when people deliberate excessively about a decision, they are more likely to focus too much on less important or relevant criteria (Wilson and Schooler 1991), develop an attachment to the options and later feel a sense of loss toward unchosen options (Carmon et al. 2003), and experience lower post-choice satisfaction (Dijksterhuis et al. 2006).

Restricting deliberation can also be beneficial from a social perspective. For example, Small et al. (2007) found that charitable giving is higher when requests for donations rely on simple emotional appeals using identifiable victims, rather than presentation of statistical victims. However, triggering deliberation actually reduced giving toward the identifiable victims, and it did not increase giving toward the statistical victims, suggesting that in some cases reduced deliberation can have benefits for society.

3 Types of interventions

Given the various causes of suboptimal decision making that the behavioral decision literature documents, what types of interventions can help consumers make better decisions? In this section we review several types of interventions and their potential to help people make better decisions.

3.1 Provide information

Sometimes people do not know how to achieve their goals. They may be overwhelmed by the number of steps they think would need to be taken to accomplish their goals or might find the task so complex that they do not even know where to begin. For example, people may want to set aside money for retirement but not have a solid understanding of their options and how to utilize them. Or they may aim to follow a more healthful diet but not know what constitutes “healthful.” Other times, people may hold goals such as protecting the environment, without realizing that their personal habits work against those values.

A common suggestion for helping people in these situations is to simply inform them: if they *know*, they will *do*. In particular, research by Gollwitzer and colleagues (Gollwitzer 1999; Gollwitzer et al. 1990) indicates that having a plan facilitates movement from fuzzy goals to goal implementation. And there is evidence that this approach can be effective. Lusardi et al. (2007) found that university staff were motivated to save for retirement, but many did not know how to enroll in a retirement fund. They seemed to think the process was more complex than it actually was. When employees were provided with seven simple steps walking them through the enrollment process and emphasizing the ease of enrollment, participation in the university's matched individual retirement fund program increased from 7.3% to 21.7%.

In like manner, with increasing coverage in the media about the risks Americans face if they continue their eating habits, millions of Americans are motivated to eat a more healthful diet. The US Department of Agriculture (USDA) seized on this interest by designing a website, www.mypyramid.gov, that provides personalized eating guidelines. Users enter their age, sex, height, weight, and eating level and receive a table detailing their recommended daily intake in several food groups. The USDA, like Lusardi et al. (2007), attempted to help motivated consumers achieve their goals by providing them with information. However, the way in which the information was presented likely was too complex to be helpful to most consumers (Ratner and Riis, unpublished data). For example, the USDA's personalized nutrition recommendations might advise users to consume 6 oz of grains each day, three of which should be whole grains. But how much is 6 oz, and what is a whole grain? (Users could click a link and learn that “whole grains contain the entire grain kernel—the bran, germ, and endosperm,” but it seems unlikely that most consumers will eagerly embrace an endosperm-counting diet.). The recommendations also use uneven amounts (e.g., 3.5 or 6.5) and different metrics (e.g., cups and ounces), which could make it difficult to remember the details. It is thus too simple to say that providing information can help consumers. That information must be provided in a way that is easy to understand and act upon and that addresses consumers' major concerns.

The two interventions described thus far provided information relating to the final goal state—how to get there in the retirement fund case, and what that goal state should be, in the case of nutrition. Sometimes it is not enough to focus on the end state; however, consumers also need information on their current state. In the domain of spending, Soman (2001) showed that consumers who spend using credit cards lose track of how much they spent until the time they get their monthly statements.

Relatedly, many people value environmental conservation and want to reduce the amount of trash they produce, but they do not know how much trash they produce and thus cannot track their progress toward their goal (Soman 2007). An intervention was implemented in several neighborhoods of a large city that monitored households' trash production and provided each household with either a cumulative or itemized monthly trash statement (Soman 2007). Theorizing that people would be motivated by social comparison, the experimenters also provided some households with feedback about how their trash production compared to that of their neighbors. Compared to control households, households armed with ongoing information on their trash production reduced their trash production over the period of the study. Itemizing trash production and providing social comparison information both boosted the effect.

3.2 Provide decision tools: change cognitive representation

Earlier we discussed self-control problems that can lead to troubles such as obesity and under-saving. Such problems arise in part from cognitive and perceptual distortions that lead people to overweigh the present relative to the future. We suggest that simply changing the cognitive representations of outcomes or intertemporal decisions could alleviate this bias. In particular, Metcalfe and Mischel (1999) demonstrated that concrete mental representations of immediate outcomes make it more difficult to delay gratification. Consistent with this, Malkoc and Zauberman (Malkoc and Zauberman 2006; Malkoc et al. 2007) provide evidence that when immediate outcomes are presented in an abstract manner, consumers show a reduced tendency to overweigh the present and an enhanced ability to wait for later rewards. Conversely, inducing people to visualize future states (i.e., process future outcomes more concretely) has been shown to lead them to place greater weight on future considerations that are otherwise neglected (Malkoc and Zauberman 2006; Zhao et al. 2007).

Applying similar ideas about the importance of outcome concreteness to savings decisions, Ariely (2007, unpublished manuscript) proposes the idea of “concrete budgeting.” People first concretely state their retirement goals (e.g., visit the grandchildren overseas, maintain a house on the beach, eat out twice a week, pay for private home care as needed). The concrete budgeting tool then translates these goals to expected costs and estimates what the user would need to put into savings now to afford those costs. Thus, the tool connects abstract goals about money to concrete retirement goals, which should encourage individuals to be more forward-looking about financial planning.

3.3 Tap emotion

While emotion has been commonly regarded as detrimental to decision making (e.g., Loewenstein 1996), learning to recognize what one's true emotional reactions are can help people avoid making the prediction errors identified earlier (Meyvis et al. 2008). In addition, there are instances in which emotional decisions, even if they are less “rational,” can be socially beneficial (see Loewenstein and Small 2007 for a review). In a rational manner, consumers who are motivated to help victims should respond more to statistical information about large numbers of victims than

information about just a few victims. Yet research on the identifiable victim effect (Small and Loewenstein 2003; Small et al. 2007) has demonstrated that charitable giving increases with emotional appeals that suppress deliberative thought. Identifiable victims tap emotions by making suffering more concrete and vivid, whereas statistical victims motivate more calculated, deliberative thought. It is important to note that this is not a zero-sum game. Priming an emotional mindset increases giving to identifiable victims, but it does not reduce giving to statistical victims. In addition, a victim with a sad facial expression increases both sympathy and charitable giving vis-à-vis emotional contagion (Small and Verrochi 2007). Finally, personal experience with a particular misfortune (i.e., a relationship with a victim) leads individuals to feel more for, and thus give more to, other victims of the same misfortune (Small and Simonsohn 2007). In summary, factors that promote emotion with respect to others' welfare (i.e. sympathy) can foster helpful social outcomes.

3.4 Organize options

When employees enroll in retirement savings programs, they are often deluged with dozens of funds to choose from. Lacking confidence and knowledge about which funds they should choose, some employees prefer not to make any decision and thus decline to enroll. Organizing options can alleviate this sense of confusion and overcome the intimidation that it causes. In particular, providing a default option allows consumers to avoid feeling the need to research dozens of funds and choose among them. When one option is set apart as the default, for example, Fidelity's Life Cycle Funds, the burden on the consumer decreases (Lusardi et al. 2007). Related work shows that when the default is to be enrolled in a 401 K, with the option to opt out of the plan, enrollment percentages increase dramatically (Madrian and Shea 2001).

Options also can be organized or partitioned in ways that make it easier to budget consumption to achieve goals. Sometimes interventions utilize the mental compartments consumers naturally have. Cheema and Soman (2007) propose that partitioning provides a decision point—an opportunity for consumers to reevaluate the decision to consume. They show that partitioning a resource (e.g., a bucket of popcorn) into smaller units (e.g., several bags) reduces consumption because every time consumers encounter a partition, they have to make a conscious decision to continue consumption. In essence, these partitions provide prudent consumers with a decision-point that shifts their decision making from automatic and mindless to deliberative.

Building on these ideas, Soman (2007) conducted a field study of workers in India and China who were paid every 5 days for their labor. These workers expressed a desire to save some of their earnings but found it hard to control their spending to have savings left over. Reasoning that the workers mentally compartmentalize consumption by day, Soman divided their wages into six envelopes. These envelopes provided an easy way to control daily spending until the next salary distribution and included an extra envelope to treat as savings. Within 3 months, savings among workers increase fourfold.

Another study partitioned options in a way that increased the nutrition content of items consumers selected (Fox et al. 2005). When presented with an array of choices

from which to make multiple selections simultaneously, people have a tendency to seek diversification (Read and Loewenstein 1995; Simonson 1990). Fox et al. (2005) organized the food choices in a menu of options into different categories and found that people tended to diversify across whichever categories were presented. As a result, combining less healthful foods (cookies and crackers) into one group and separating healthful foods (fruits and vegetables) into separate groups led to healthier consumption than the opposite arrangement.

3.5 Restrict options

Earlier we mentioned research suggesting that having too many options, or deliberating about a decision too much, can be detrimental to decision making. Thus, some interventions that restrict choice can actually help consumers. For example, a clever set of studies suggests that package size influences the amount of consumption in various categories such as food, water, and detergent (Wansink 1996). When excessive consumption is a concern, as is the case with unhealthful foods, it may be desirable to reduce package sizes, in effect restricting the ability to consume. In like manner, in a recent field study, Soman (2007) observed that reducing the size of trash bins brought about a dramatic decrease in garbage production. When it was more difficult to dispose of garbage, consumers became more careful about the amount of waste they generated. Other recent studies suggest that these positive effects of smaller sizes are eliminated (and that the effect is even reversed) when the overall number of packages consumers can obtain is unconstrained (i.e., when consumers can take more than one package, they eat more from smaller than from larger packages, Coelho do Vale et al. 2007; Scott et al. 2007).

More generally, transaction costs and restrictions of various kinds can be used to deter undesirable consumption. For example, if one aimed to encourage people to use glass cups rather than plastic cups, while still preserving both options, one could place glass cups close to the water cooler or refrigerator and place paper cups farther back.

3.6 Add restrictive options

Whereas restricting access to certain (i.e., undesirable) options can help generate welfare-enhancing choices, paradoxically, *adding* options can also help decision making. To be specific, giving consumers the option to pre-commit to a choice or behavior can attenuate the self-control problems that result from the present bias. Students can set self-imposed early deadlines to avoid procrastination (Ariely and Wertenbroch 2002), and smokers can buy smaller packages of cigarettes and other vices to limit how much they consume later (Wertenbroch 1998). In a similar vein, Thaler and Benartzi (2004) found that having employees pre-commit to saving their salary increased actual savings rates.

Adding the option to opt out or defer choice could also prevent consumers from making poor decisions. Research shows that providing equally attractive options increases desire to defer choice (Dhar 1997). Therefore, providing a no

choice option alongside ‘sinful’ alternatives could lead consumers to defer their choice, at least temporarily, hence giving them time to change their decision in a desirable way.

When pre-commitment or “no choice” is added as an option, the goal is to steer consumers away from those long-term inferior alternatives. In other instances, it may be helpful to add new options to steer consumers toward already existing desirable options. A number of decision-making studies indicate that the probability that consumers will choose certain options is influenced by context. For example, in situations in which consumers face a trade-off between two products, the choice probability of an option can actually increase when an asymmetrically dominated option is added to the choice set (Huber et al. 1982). So when consumers are confronted with a decision between a tasty but unhealthy fried dish and a less tasty but healthful organic vegetable dish, they may be more likely to choose the vegetable dish when an option inferior to the vegetable dish in both taste and healthfulness is added, such as a bland tasting vegetable dish. In like manner, adding an alternative that makes the desirable option a compromise could also increase the probability that consumers will choose the desirable option (Simonson 1989).

3.7 Manage expectations

Another way to help obtain desired outcomes is to manage expectations. One could, for example, misinform people that a certain behavior has desirable consequences, or overstate the impact of a particular intervention. While such deception raises ethical concerns, research indicates that it can leave people better off. For example, room attendants who were told that their work, cleaning hotel rooms, provides benefits similar to exercise showed significant decrease in weight, body fat, and blood pressure compared to attendants who engaged in the same work but were not told this (Crum and Langer 2007); these effects appeared to be mediated by changes in perceived exercise rather than actual amount of exercise obtained. In another example, people derived greater benefits from consuming energy drinks (e.g., exercised more vigorously and became less fatigued) if those drinks were misrepresented as very (rather than somewhat) effective (Shiv et al. 2005a, 2005b). In like manner, due to belief in the relation between price and quality, people who were misinformed that they consumed an expensive analgesic pill experienced significantly less pain (Waber et al. 2008). In a very different example reported by Martin (as cited in Larson 1987), passengers guided to take a long route from their plane to the baggage carousel were significantly more satisfied with their experience at the airport than passengers shown the short route, and who thus had to wait idly by the carousel rather than walk unnecessarily.

4 Ethics and effectiveness

Thus far we have taken a primarily utilitarian approach to helping consumers. We have discussed how consumers make decisions, and how we can influence those decision processes to generate better outcomes for consumers. Some may argue,

however, that the phrase “influence those decision processes” is merely a euphemism for “manipulate consumers.” And indeed, if knowledge from behavioral decision research is used to influence consumers, this can be used for purposes that are beneficial (eating a healthful diet) or harmful (eating foods that have negative consequences). Researchers, who design interventions and policies to help consumers, may confront these ethical controversies (or debates) that have no simple answers and that sometimes force researchers to consider trade-offs between multiple ethical principles they hold.

The crux of libertarian paternalism—allowing some choice but designing decision processes or contexts in ways that skew outcomes toward particular directions—is acceptable to some because it allows for free will. Others, however, argue that it only provides the *semblance* of free will and is thus manipulative and disingenuous, perhaps even less acceptable than flagrant paternalism. Yet others disagree that paternalism, whether explicit or oblique, should be considered objectionable, and that it is the belief in free will, rather than its actual, ontological existence, that matters to consumers (Werthenbroch et al. 2008).

Clearly, a key issue here is to what extent behavioral interventions restrict people's independence and are perceived to do so by consumers. Providing information to consumers about how to set up a retirement fund is less heavy-handed than requiring consumers to participate in such a fund. As a result, many people would consider the former more ethically acceptable. However, the acceptability of an intervention is context-dependent. It could depend on the severity of the consequences (both to the individual and society) of not changing behavior, how effective the intervention is likely to be, and whether the consumer had explicitly expressed a desire to change and asked for help (e.g., someone looking to lose weight may allow another person to completely restrict his or her food choices). Standards of acceptability can also depend on culture. In Singapore, for instance, a mandatory amount of money is automatically withheld from paychecks and placed into personal retirement accounts. These accounts do not carry the same tax benefits that often accompany retirement accounts in the United States, and it is impossible to opt out of these accounts (<http://mycpf.cpf.gov.sg/Members/home.htm>). However, Singaporeans, for the most part, do not seem to resent this paternalism.

Many ethical issues also touch on another classic philosophical debate, consequentialism (in which the moral value of an action derives from its consequences) versus deontology (in which the moral value of an action is independent from its consequences). Conundrums arise when consequentialist recommendations are deontologically questionable. Researchers might agree with the deontologist's argument that lying to consumers is immoral, but what if lying makes consumers better off (e.g., they have better health outcomes when they are led to believe a drug will be effective)? Likewise, researchers might face a trade-off between giving consumers more freedom and achieving a healthier population. Surely providing nutrition information without restricting choice might cause some people to eat a more healthful diet, but it would be much more effective to completely eliminate consumer choice and force people to eat a more healthful diet by legislating the nutrition content of the foods themselves. Researchers hoping to see their interventions achieve actual change must consider the extent to which the ends justify the means.

5 Field studies

Consumers make decisions not in university laboratories but in stores, homes, and public places. They take risks not with nominal experimental participant payments, but with their salaries, their health, and their futures. We believe that to truly help consumers, we must break down barriers that often separate academic research from non-academic contexts. We thus close by encouraging our colleagues to consider conducting more studies in the field to complement lab study findings as a viable research agenda.

There are several advantages to field studies. Foremost, some practitioners do not find lab results compelling; they want evidence that theories and recommendations hold outside the lab and track actual behavior in the natural environments in which they unfold. Field studies allow researchers to provide this validation while still ensuring that the studies are carried out in scientifically rigorous ways. For example, Ashraf et al. (2006) conducted a field experiment demonstrating the powerful effects of precommitment devices to increase individuals' savings rate, and Ashraf et al. (2007) performed a field experiment documenting the impact of prices paid on the usage of health-enhancing water purification products. In addition, conducting studies in the field allows researchers to observe contexts in which important consumer decisions unfold and to discover moderators and mediators that do not surface in the lab. For instance, by recruiting university staff for their study on retirement investment, Lusardi et al. (2007) were able to uncover previously unconsidered factors that were inhibiting retirement investment participation.

It is obvious that field studies are more difficult to run than lab studies, and this is a primary reason they are underutilized. Although it will almost always be more convenient to run lab studies, and lab studies will almost always allow the researcher greater control, there are ways to lower the practical hurdles to conducting field studies. One is to build strategic partnerships with non-academic institutions—both private and government-run—interested in the same problems. Organizations such as the National Endowment for Financial Education (NEFE) and the US Office of Personnel Management are often receptive to working with academics and can provide help in the form of grants, access to data or participants, and further contacts. Researchers also should not dismiss the possibility of working with for-profit corporations. While the interests of these corporations are often perceived as incompatible with the goal of helping consumers, sometimes what is good for the consumer is also good for the corporation. Increasing participation in retirement funds, for example, can benefit both the corporations running the retirement funds and the consumers who participate in them.

Working with organizational partners often facilitates dissemination of findings. Many of these organizations have direct access to a large group of consumers and employ personnel who specialize in educating the public and communicating with policy makers and the media. Researchers need not rely on these organizations for dissemination though. They may be able publish a book on their findings, attend industry conferences, and contact public officials. For example, with Citigroup sponsorship, Gaba et al. (2005) conducted a large-scale field study with Asian consumers that validated many behavioral investment biases across different countries that had previously been demonstrated in laboratory studies. Although

the time and effort involved in such undertakings may be more than many academics are willing or able to expend, researchers should not automatically dismiss such projects. To help consumers help themselves, it is essential to maintain and utilize channels that connect researchers with the public.

6 Conclusions

Consumer researchers have focused on understanding decision-making processes but paid relatively little attention to how they could extend their findings and methods to help consumers make better decisions. As we have reviewed in this paper, many individual and social problems can be identified as being caused by factors such as lack of information, self-control problems, cognitive biases, or emotional influences. We also illustrated with some examples how our understanding of consumers' decision process can be used to fix, or at least alleviate, these problems.

The methods suggested here require relatively weak interventions in consumers' choice, as our goal is to help consumers help themselves. For consumers to be able to help themselves, more extensive research on consumers' problems and remedies is required, and effective dissemination of the findings should follow. To do that, we must reach to non-academic publications. One simple possibility is to have our academic institutions publish 'lay person friendly' newsletters or bulletins. Our journals could also do a better job with press releases about the implications of select articles. And more needs to be done to disseminate behavioral research that can help consumers help themselves through multiple outlets, such as inclusion in popular books, talks to industry, work with government, and presentations at industry conferences. Although such activities are generally not common among academics, we suggest that if we want our work to affect society, we must proactively reach out and pursue such information outlets.

References

- Ariely, D., & Wertenbroch, K. (2002). Procrastination, deadlines, and performance: self-control by precommitment. *Psychological Science*, *13*(3), 219–224.
- Ashraf, N., Berry, J., & Shapiro, J. M. (2007). Can higher prices stimulate product use? Evidence from a field experiment in Zambia. Working paper, Harvard Business School.
- Ashraf, N., Karlan, D., & Yin, W. (2006). Tying Odysseus to the mast: evidence from a commitment savings product in the Philippines. *Quarterly Journal of Economics*, *121*(2), 635–672.
- Buehler, R., & McFarland, C. (2001). Intensity bias in affective forecasting: the role of temporal focus. *Personality and Social Psychology Bulletin*, *27*(11), 1480–1493.
- Carmon, Z., Wertenbroch, K., & Zeelenberg, M. (2003). Option attachment: when deliberating makes choosing feel like losing. *Journal of Consumer Research*, *30*(1), 15–29.
- Cheema, A., & Soman, D. (2007). The effect of partitions on constraining consumption. *Journal of Marketing Research*, forthcoming.
- Coelho do Vale, R., Pieters, R., & Zeelenberg, M. (2007). Sneaky small sins flying under the radar: package sizes and consumption self-regulation. Working paper, Tilburg University.
- Crum, A. J., & Langer, E. J. (2007). Mind-set matters: exercise and the placebo effect. *Psychological Science*, *18*(2), 165–171.
- Dhar, R. (1997). Consumer preference for a no-choice option. *Journal of Consumer Research*, *24*(2), 215–231.
- Dijksterhuis, A., Bos, M. W., Nordgren, L. F., & van Baaren, R. B. (2006). On making the right choice: the deliberation-without-attention effect. *Science*, *311*, 1005–1007.

- Fox, C. R., Ratner, R. K., & Lieb, D. S. (2005). How subjective grouping of options influences choice and allocation: diversification bias and the phenomenon of partition dependence. *Journal of Experimental Psychology: General*, *134*(4), 538–551.
- Gaba, A., Hillion, P., & Wertenbroch, K. (2005). Investor decision making in Hong Kong, Singapore, and Taiwan: a behavioral survey for Citigroup. Technical report. Singapore: INSEAD Asia Campus.
- Gilbert, D. T., & Ebert, J. E. (2002). Decisions and revisions: the affective forecasting of changeable outcomes. *Journal of Personality and Social Psychology*, *82*(4), 503–514.
- Gilbert, D. T., Pinel, E. C., Wilson, T. D., Blumberg, S. J., & Wheatley, T. P. (1998). Immune neglect: a source of durability bias in affective forecasting. *Journal of Personality and Social Psychology*, *75*(3), 617–638.
- Gollwitzer, P. M. (1999). Implementation intentions—strong effects of simple plans. *American Psychologist*, *54*(7), 493–503.
- Gollwitzer, P. M., Heckhausen, H., & Ratajczak, H. (1990). From weighing to willing: approaching a change decision through pre- or postdecisional mentation. *Organizational Behavior and Human Decision Processes*, *45*(1), 41–65.
- Gourville, J., & Soman, D. (2005). Overchoice and assortment type: when and why variety backfires. *Marketing Science*, *24*(3), 382–395.
- Hermstein, R. J., & Prelec, D. (1991). Melioration: a theory of distributed choice. *Journal of Economic Perspectives*, *5*(3), 137–156.
- Huber, J., Payne, J. W., & Puto, C. (1982). Adding asymmetrically dominated alternatives: violations of regularity and the similarity hypothesis. *Journal of Consumer Research*, *9*(1), 90–98.
- Iyengar, S. S., & Lepper, M. R. (2000). When choice is demotivating: can one desire too much of a good thing? *Journal of Personality and Social Psychology*, *79*(6), 995–1006.
- Jones, E. E., & Nisbett, R. E. (1971). The actor and the observer: divergent perceptions of the causes of behavior. In E. E. Jones, et al. (Ed.), *Attribution: Perceiving the Causes of Behavior*. Morristown, NJ: General Learning Press.
- Larson, R. C. (1987). Perspectives on queues: social justice and the psychology of queuing. *Operations Research*, *35*(6), 895–905.
- Liberman, N., & Trope, Y. (1998). The role of feasibility and desirability considerations in near and distant future decisions: a test of temporal construal theory. *Journal of Personality and Social Psychology*, *75*(1), 5–18.
- Loewenstein, G. (1996). Out of control: visceral influences on behavior. *Organizational Behavior and Human Decision Processes*, *65*(3), 272–292.
- Loewenstein, G., & Small, D. A. (2007). The scarecrow and the tin man: the vicissitudes of human sympathy and caring. *Review of General Psychology*, *11*(2), 112–126 (Special Issue on Emotion and Decision Making).
- Lusardi, Annamaria, Keller, Punam A., and Adam M. Keller (2007). New ways to make people save: a social marketing approach. *Overcoming the saving slump: how to improve the effectiveness of financial education and saving programs*. Book manuscript, University of Chicago Press.
- Lynch, J., & Zauberman, G. (2006). When do you want it? Time, decisions, and public policy. *Journal of Public Policy and Marketing*, *25*(1), 67–78.
- Madrian, B. C., & Shea, D. F. (2001). The power of suggestion: inertia in 401(k) participation and savings behavior. *Quarterly Journal of Economics*, *116*(4), 1149–1187.
- Malkoc, S., & Zauberman, G. (2006). Deferring versus expediting consumption: the effect of outcome concreteness on sensitivity to time horizon. *Journal of Marketing Research*, *43*(4), 618–627.
- Malkoc, S., Zauberman, G., & Bettman, J. R. (2007). It is in the mindset the effect of processing concreteness on consumer impatience. Working paper, Carlson School of Management, University of Minnesota.
- Malkoc, S., Zauberman, G., & Ulu, C. (2005). Consuming now or later? The interactive effect of timing and attribute alignability. *Psychological Science*, *16*(5), 411–417.
- Metcalfe, J., & Mischel, W. (1999). A hot/cool-system analysis of delay of gratification: dynamics of willpower. *Psychological Review*, *106*(1), 3–19.
- Meyvis, T., Ratner, R. K., & Levav, J. (2008). Why people don't learn to accurately forecast their feelings: how misremembering their predictions blinds people to their past forecasting errors. Working Paper.
- O'Donoghue, T., & Rabin, M. M. (1999). Doing it now or later. *American Economic Review*, *89*(1), 103–124.
- Read, D., & Loewenstein, G. (1995). The diversification bias: explaining the difference between prospective and real-time taste for variety. *Journal of Experimental Psychology: Applied*, *1*(1), 34–49.

- Scott, M. L., Nowlis, S. M., Mandel, N., & Morales, A. C. (2007). Why do diet foods make consumers heavier? The effect of reduced calorie packages on the consumption behaviors of dieters and non-dieters. Working paper, Arizona State University.
- Sethi-Iyengar, S., Huberman, G., & Jiang, W. (2004). How much choice is too much? Contributions to 401(k) retirement plans. In O. S. Mitchell, & S. Utkus (Eds.) *Pension Design and Structure: New Lessons from Behavioral Finance*, 83–95. Oxford: Oxford University Press.
- Shiv, B., Carmon, Z., & Ariely, D. (2005a). Placebo effects of marketing actions: consumers may get what they pay for. *Journal of Marketing Research*, 42(4), 383–393.
- Shiv, B., Carmon, Z., & Ariely, D. (2005b). Ruminating about placebo effects of marketing actions. *Journal of Marketing Research*, 42(4), 410–21.
- Simonson, I. (1989). Choice based on reasons: the case of attraction and compromise effects. *Journal of Consumer Research*, 16(2), 158–174.
- Simonson, I. (1990). The effect of purchase quantity and timing on variety-seeking behavior. *Journal of Marketing Research*, 27(2), 150–162.
- Small, D. A., & Loewenstein, G. (2003). Helping “THE” victim or helping “A” victim: altruism and identifiability. *Journal of Risk and Uncertainty*, 26(1), 5–16.
- Small, D. A., Loewenstein, G., & Slovic, P. (2007). Sympathy and callousness: the impact of deliberate thought on donations to identifiable and statistical victims. *Organizational Behavior and Human Decision Processes*, 102(2), 143–153.
- Small, D. A., & Simonsohn, U. (2007). Friends of victims: personal experience and prosocial behavior. *Conditionally accepted at Journal of Consumer Research*.
- Small, D. A., & Verrochi, N. M. (2007). The face of need: emotion expression on charity advertisements. Working paper, Wharton School, University of Pennsylvania.
- Soman, D. (1998). The illusion of delayed incentives: evaluating future effort-money transactions. *Journal of Marketing Research*, 35(4), 427–437.
- Soman, D. (2001). Effects of payment mechanism on spending behavior: the role of rehearsal and immediacy of payments. *Journal of Consumer Research*, 27(4), 460–474.
- Soman, D. (2007). Behavioural economics in the field: improving prudence through field experiments. Rotman School of Management, Toronto, University of Toronto.
- Thaler, R. H., & Benartzi, S. (2004). Save more tomorrow: using behavioral economics to increase employee saving. *Journal of Political Economy*, 112(1), 164–187.
- Thaler, R. H., & Sunstein, C. R. (2003). Behavioral economics, public policy, and paternalism: libertarian paternalism. *The American Economic Review*, 93(2), 175–179.
- Waber, R., Shiv, B., Carmon, C., & Ariely, D. (2008). Commercial features of placebo and therapeutic efficacy. *JAMA: The Journal of the American Medical Association*, 299(9), 1016–1017.
- Wansink, B. (1996). Can package size accelerate usage volume? *Journal of Marketing*, 60(3), 1–14.
- Wertenbroch, K. (1998). Consumption self-control by rationing purchase quantities of virtue and vice. *Marketing Science*, 17(4), 317–337.
- Wertenbroch, K., Vosgerau, J., & Bruyneel, S. D. (2008). Free will, temptation, and self-control: we must believe in free will, we have no choice. *Journal of Consumer Psychology*, 18, 27–33.
- Wilson, T. D., & Schooler, J. W. (1991). Thinking too much: introspection can reduce the quality of preference and decisions. *Journal of Personality and Social Psychology*, 60(2), 181–192.
- Zauberman, G. (2003). The intertemporal dynamics of consumer lock-in. *Journal of Consumer Research*, 30(3), 405–419.
- Zauberman, G., & Lynch, J. G. (2005). Resource slack and propensity to discount delayed investments of time versus money. *Journal of Experimental Psychology: General*, 134(1), 23–37.
- Zhao, M., Hoeffler, S., & Zauberman, G. (2007). Mental simulation and preference consistency over time: the role of process- versus outcome-focused thoughts. *Journal of Marketing Research*, 44(2), 379–388.