

BEHAVIORAL ECONOMICS AS A RICH SOURCE OF KNOWLEDGE FOR MARKETERS

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Abstract

Thanks to behavioral economics people can gain deep insight into human economic behavior. Despite this, it's hardly possible that marketers profoundly study behaviorist theories to enhance their understanding of consumer needs, desires, and motivation. Indeed, they tend to extract new knowledge from marketing journals which generally have weak dependence on psychology and economics journals (Johnson, 2006). In this paper I examine the essence of behavioral economics, give a brief overview of its history, compare it with other sub-disciplines of economics and describe several behavioral theories which are later applied to consumer behavior. To demonstrate practical significance of behavioral economic findings in marketing, I provide illustrative examples of successful marketing practices which were actually based on behaviorist ideas. This paper could serve as a starting point from which an interest in behavioral economics and motivation to examine its theories would arise. In particular, my findings could be interesting for practitioners who search for new ways of making their marketing tools more effective.

Keywords: behavioral economics, consumer behavior, marketing

Introduction

“Limited rationality creates opportunity for influencing behavior (for better or worse) and for creating value out of thin air” (Thaler and Benartzi 2004 as cited in Prelec, 2006, p. 335). In other words, behavioral economics can open up new opportunities for marketers. However, it seems that marketing develops and enriches through its internal sources (knowledge derived from specialists in this field) whereas psychological and economic literature remains “barely touched”. According to Johnson (2006), marketing journals have low inputs from economics and psychology (except for *Journal of Consumer Research*¹ in the latter case) while strong dependence on one another is observed. To show that marketing can significantly benefit from knowledge borrowed from other disciplines, I devoted this paper to numerous situations where marketers achieved outstanding results thanks to adhering to behavioral approach. I do not only use existing examples (i.e. situations where the role of behavioral economics has been already explicitly emphasized) but in some cases I also provide my own explanations of consumer decision-making based on the knowledge of behavioral economics.

The remainder of this paper is structured as follows: First, I define behavioral economics, explain the difference between it and experimental economics, briefly analyze key stages of its development and discuss its strengths compared with traditional economics. Second, I extend discussion on selected behavioral theories. Third, I apply knowledge obtained from the above mentioned theories to marketing practice.

1. Nature of behavioral economics

Before defining the subject of my analysis I should draw a distinction between behavioral and experimental economics in order to prevent confusion resulted from interchangeable use of these terms. Whereas behavioral economics is defined on the basis of its research subject, experimental economics got its name after the main research tool which is used in it. Although these sciences have much in common, there are significant differences in

¹ It is noteworthy that only three main marketing journals were chosen for comparison.

their research approaches and methods. Firstly, behaviorists use a combination of different research methods² to back up their ideas, while experimentalists support their arguments solely with experimental outcomes. This leads to significantly lower external validity of experimental economics findings because it's difficult to make generalizations based on context-biased results to relevant real-life situations. In addition, for the sake of high internal validity, behaviorists *randomly* assign participants to treatments. However, experimentalists do not attach special importance to random placement what results in correlated or incomparable observations (Loewenstein, 1999). In this paper I suggest ways how findings from *behavioral economics* can enrich marketers' knowledge and present examples concerning successful application of behavioral theories to marketing practice.

First of all, behavioral economics should be defined and some background about this field of science should be provided. In contrast to traditional economics, behaviorists base their conclusions on knowledge of human psychology (rather than mathematical models) to reflect the economic agents' *behavior* in a more realistic way. Behavioral economics is considered to be a relatively young discipline, which started to gain popularity in early 90s³. Despite this, its roots can be found even in works of early neoclassical economists (such as Smith A., Bentham J., Edgeworth F. and others⁴) and its development covered emergence of psychology (which slightly influenced the ideas of mainstream economics at the turn of the 20th century but was expunged from it by the middle of the century), introduction of bounded rationality⁵ and acceptance of anomalies by economists (who could not find arguments in defence of their discounted utility and expected utility models, which suffered from lack of realism⁶). The reason why behavioral economics became an independent discipline only at the end of the 20th century was long-lasting unwillingness of academic economic society, whose members were convinced that psychology could not be a steady foundation of economics, to accept it (Camerer & Loewenstein, 2002).

As it was mentioned above, behavioral economists use different research methods what helps them to avoid problems typical for mainstream economics such as rigidity (regardless of a situation traditional economists (TEs) base their conclusions on mathematical modeling; therefore, they lack flexibility in methods they use), narrowness (TEs' methods are limited to mathematical modeling; therefore, only the limited number of questions is investigated and core assumptions are accepted without empirical examination), intolerance (TEs are unwilling to accept methods of other scientific fields, thereby depriving themselves of an opportunity to benefit from other disciplines) (Tomer, 2007).

To fully understand the nature of behavioral economics, it's necessary to take a closer look at its theories. For the purpose of this paper I have chosen only those behaviorist ideas which can be easily applied to consumer behavior.

1.2. General overview of selected behavioral theories

1.2.1. Bounded rationality

In the first place, theory of *bounded rationality* should be mentioned. In his paper (1955) Herbert Simon refuted the idea of global rationality, which implies that individuals have a stable system of preferences and choose the best alternative on the basis of rigorous calculations. The renowned economist argues that our actual process of rational choice is limited by both external (e.g. the amount of information available) and internal (our physiological and psychological capabilities) forces, what leads to the dependence of our choice on previous decisions and change of

² According to Camerer & Loewenstein (2002) behavioral economics especially relies on findings from field experiments, computer simulation and brain scans (p. 6).

³ The start of its flourishing period is often connected with the conference which took place at the University of Chicago In 1986. A lot of papers presented there were written by social scientists.

⁴ For example, in his famous book "The theory of Moral Sentiments" (1759/1892) Adam Smith claims that fall to a worse situation from a better one brings stronger suffering than joy which people experience in the opposite case (as cited in Camerer & Loewenstein, 2002). This statement reflects the essence of loss aversion.

⁵ Its origins are associated with the name of H. Simon who proposed this concept in his paper "A behavioral model of rational choice" (1955).

⁶ On the contrary, behaviorists' findings (e.g. implications of prospect theory or hyperbolic discounting) were supported by numerous experiments.

our attitude to a certain alternative as a result of experience⁷. In addition, according to rational choice theory, individuals compare all alternatives and then choose the one which will bring them the highest value, whereas in reality people are often confronted with a sequence of alternatives rather than their coincidence⁸. Therefore, their rational decision-making process starts to consist of the following stages:

- 1) search for a set of outcomes with a satisfactory pay-off ($V(s) \geq k$, where k – aspiration level)
- 2) gathering of information to refine a set of all available behavioral alternatives⁹
- 3) search for a behavior alternative(s)¹⁰ which will possibly lead to outcomes with satisfactory pay-off.

To show the practical importance of his theory, Herbert Simon gives the house-selling illustration where an individual sequentially receives offers from different buyers. Before a seller gets the next offer, he needs to reject or accept each of the previous ones. First of all, a person looks for a price which he or she will be willing to accept at the end of planning period (thereby determining a set of satisfactory outcomes). Then a seller sets initial acceptance price (aspiration level), which may be adjusted downward or upward on the basis of freshly-gathered information (stage 2). Finally, he or she accepts an offer (chooses acceptance as a behavioral alternative) which meets previously defined criteria of a satisfactory reward.

As we can see, in complex situations people tend to simplify their decision-making process: in order to find an optimal solution, they do not resort to complex probability calculations. This enables them to be rational only within the limits of their cognitive abilities.

1.2.2. Prospect theory

Another behaviorist invention whose role is of paramount importance is *prospect theory* developed by Kahneman and Tversky in 1979. According to it, individuals suffer from a number of behavioral anomalies; therefore, their choice-making process differs from the model proposed by expected utility theory.

First of all, people tend to attribute higher weights to certain outcomes compared with probable ones¹¹. In combination with *reflection effect* this leads to risk aversion (risk seeking) in the positive (negative) domain. Individuals are likely to prefer a sure gain to a probable one with a higher value; in other words, they show risk-avoiding behavior. On the other hand, people are likely to prefer a probable loss to a certain one with a smaller value, what means that in this situation they are searching for risky opportunities. In addition, losses cause stronger frustration compared with pleasure individuals experience from gains¹². As a result of the experiment, Kahneman and Tversky (1992) concluded that the prospect would be accepted only if the gain exceeded at least twice the loss. Moreover, people are often forced to change their lives after they suffer substantial losses; as most of them do not appreciate changes, they start to demonstrate *loss aversion*.

Human perception of losses and gains is related to *reference point*, which helps to determine the direction and magnitude of change. Although normally reference point is represented by the asset position, sometimes a discrepancy between them may arise as a result of inadequate individual's adaptation to recent changes in his (her) wealth (Kahneman & Tversky, 1979). It's also noteworthy that the further we move from the reference point the weaker we are influenced by the change. This simply means that we are more sensitive to the change of probabilities

⁷ Individual preferences for a particular product may change after a person tries it out (before that his or her perception of the product was probably based on advertising or friends' opinions).

⁸ This means that they probably have to decide about the current option before they face the next one.

⁹ Although initially an individual collects all disposable information, eventually (during stage 3) he or she chooses from the subset of behavioral alternatives as a result of limited perception abilities.

¹⁰ Contrary to rational choice theory, the uniqueness of solution is not guaranteed. It's impossible to predict which alternative will be preferred. Several of them can exceed aspiration level (or, in other words, be satisfactory), but an individual will decide in favour of the one which is the first in sequence.

¹¹ Although Kahneman and Tversky have called this phenomenon *certainty effect*, overweighting of outcomes can be observed also in case of likely events compared with hardly possible ones.

¹² It's implied that both of them are of the same magnitude.

from 0.99 to 1.00 than to the change from 0.10 to 0.11 (Allais's famous example – as cited in Kahneman & Tversky, 1992, p. 298).

In addition to being nonlinear, our preferences may be reverse under certain conditions. According to prospect theory, our choice-making process consists of two phases: editing and evaluation. The latter phase implies comparing available prospects and choosing the one of the highest value. The former phase, however, is devoted to the analysis of available prospects during which such operations as coding, combination, cancellation, segregation and others are performed. Obviously, the same prospect can be edited differently depending on the corresponding context. This leads to *framing effects*: people show inconsistent preferences stemming from different formulations of choice problem. Another reason for preference reversal lies in human desire to simplify the choice between options. Individuals are likely to neglect the constituents common to both prospects and instead to concentrate on their distinguishing features (so called *isolation effect*) what may result in intransitive preferences.

1.2.3. Choice avoidance

One more proof of human inclination to simplification of decision-making can be found in *choice avoidance*. To uncover the essence of this behavioral anomaly, I will consider individual's reaction to the excessive number of options in the supermarket and investment management company.

As a result of their experiments, S. S. Iyengar and M. R. Lepper (2000) show that first impression of too much choice is delusive and can subsequently hinder individual's motivation to purchase. In the first study, where consumers were asked to choose from either six or twenty four flavors of jam, 60 percent of passers-by were enticed by the abundant assortment in the extensive-choice condition, but only 3 percent of them have bought jam in the end. In case of the limited-choice condition these numbers are 40 percent and 30 percent respectively. In the second study participants were offered to select from an array of six or thirty chocolates for the subsequent sampling. Although initially individuals facing extensive choice experienced more joy, ultimately only 12 percent of them preferred chocolate to money as compensation for their participation. For comparison, in the limited-choice condition this number reaches 48 percent. Findings from both experiments demonstrate that consumer willingness to buy is much stronger in case he or she is not overwhelmed with the array of selections. Otherwise, individuals will feel too responsible for their decisions, what is likely to result in disappointment and dissatisfaction with their choice. To avoid these unpleasant feelings, people simply make no choice.

We can observe the same patterns of consumer behavior in the retirement savings market. With the help of empirical regression, S. S. Iyengar, W. Jiang and G. Huberman (2003) determine the correlation between the number of offered funds and participation rates. According to their results, ten additional funds generally lead to drop of nearly two percentage points in participation rates. The findings from Iyengar and Kamenica's more recent paper (2007) may be even more interesting. The authors not only provide the evidence that with increasing number of options people tend to avoid choice¹³, but they also show another consequence of choice overload – switching behavior. As a result of extended fund offer, individuals started to allocate more to money market and bond funds. In other words, they switched their interest to more transparent options from growing portfolio of equity funds. Such behavior is consistent with Kamenica's contextual inference theory, which explains human inclination to simple alternatives in the large choice sets by their desire to avoid lower average utility.

1.2.4. Limited attention

Not only human capability to act rationally is limited, we also suffer from attention scarcity. This idea has its roots in philosophers' works; for example, Aristotle (as cited in Festre & Garrouste, 2012) admits a high probability of weaker stimulus outweighing by the stronger one. This could be interpreted as a reason for selectivity of our attention: people tend to concentrate on limited circle of things, whereas everything else goes unnoticed. More explicitly this thought is expressed in William James's recognized masterpiece *The Principles of Psychology* (1890). According to the author, attention "implies withdrawal from some things in order to deal effectively with others" (as cited in Festre & Garrouste, 2012, p. 4).

¹³ The average increase in probability of investing nothing in equities (resulting from adding ten funds) is about 3 percentage points.

From behaviorist perspective a degree of (in)attention is strongly dependent on salience of the object in question. In his paper *Psychology and Economics: Evidence from the field* (2009) DellaVigna presents findings from several experiments, which show that consumers sometimes perceive value of a good differently from its real one. In the first study Hossain and Morgan (2006) examine the impact of increased shipping costs on consumer choice. As a result of decrease in salience of shipping costs in the second treatment, consumer average expenditures rose by more than 20% compared with the first treatment. In the second study Chetty, Looney and Kroft (2007) analyse the relationship between transparency of indirect taxes and consumer willingness to purchase a good. Displaying after-tax price besides pretax price on the price label led to nearly 9 percent decrease in the average quantity demanded from the previous week. According to Castilla, C. and Haab, T. (2011), consumers' inattentiveness to certain costs can fundamentally change their search decision. To prove this, the authors conduct an experiment where they examine the relationship between consumer willingness to search for the lowest gasoline price and salience of expenditures (such as time and gasoline consumption). To identify the presence of limited attention, the researchers compared search decisions made by respondents who were provided with (n)either of the above mentioned costs or both of them. Findings from this experiment show that as a result of being reminded of time costs individuals tend to be less willing to search. Moreover, the effect of inattention is likely to be stronger in case of consumers who are not informed about either cost because they face much more challenging computational task¹⁴. On the other hand, more salient gasoline costs can apparently lead to increase in probability of search. This can have two possible explanations. Firstly, consumers are likely to overestimate the gasoline costs which they bear while driving. Secondly, in case of known time costs consumers tend to find gasoline expenditures relatively small compared with subjective value of their time.¹⁵

1.2.5. Self-control problems

Behavioral economists argue that individuals asked on an earlier date are likely to have a different idea of the expected utility (disutility) derived from a particular activity compared with those who are questioned close to a date when the activity takes place. This shows evidence of time inconsistency in human preferences arising from existence of so called *self-control problems*. People like to plan positive life changes (e.g. get rid of bad habits), but close to or even at the moment of sacrifice they tend to break their promises. The conflict of present and future preferences is well captured by *hyperbolic discounting model* which implies that within short (long) horizons individuals discount at a relatively higher (lower) rate. Simply said, „at each moment people care about their future well-being but typically less than they care about their current well-being“ (O'Donoghue & Rabin, 1999, p. 177) what can lead to various negative outcomes.

To demonstrate consumer self-control problems, I will consider individual intertemporal decision-making related to addictive goods and savings plan. Machado and Sinha (2007) provide empirical evidence of significant difference between people's planned and actual quitting age. Findings from their experiment show that only 21 percent of respondents would correctly predict their future failure to quit smoking till the age of 30 whereas 59 percent of respondents would eventually break their ambitious promise to become ex-smokers until the same age. Although consumers consider future costs of addiction to be high compared with its present benefits, they start to overdiscount the detrimental effect of harmful goods on their health as self-imposed "deadline" approaches. To commit themselves to behave properly in future (from a current self's perspective), individuals tend to resort to different "devices". For example, Liabson (1997) notices a connection between individual's willingness to prevent future overconsumption and investment in illiquid assets. By creating liquidity constraint¹⁶, consumers bind their future selves to spend only part of available financial resources. Indeed, unwillingness to bear significant capital losses seems to be a very strong motivation¹⁷ to choose long-run welfare over immediate illiquid asset realization. The role

¹⁴ Whereas participants provided with time costs of one mile had only to estimate the monetary value of this time (from the subjective point of view), people lacking information on both types of costs had to determine how much time it takes them normally to drive one mile and then – express the value of this time in monetary terms.

¹⁵ The above mentioned results apply only to respondents whose expectations were lower than observed prices. In other cases there were identified no significant differences between the groups. Those individuals found search irrelevant as it didn't promise them increase in the potential consumer surplus.

¹⁶ An illiquid asset can be turned into cash only a period after the decision about its conversion was made.

¹⁷ Liabson admits that consumers may use "devices" other than liquidity constraint. For example, they could cope with self-control problems with the help of willpower or commitment to another person.

of this commitment mechanism, however, becomes weaker if we include in our analysis access to instantaneous credit. Opportunity of borrowing with credit cards favors consumer desire for instant gratification and at the same time makes them less motivated to accumulate capital.

Intuitively, the probability of creating a commitment device differs depending on a consumer personality. In this connection, consumers can be divided into two groups: the “naifs” and “sophisticates” (O’Donoghue & Rabin, 1999). Naïve consumers don’t realize that they are hyperbolic discounters. Instead they suppose that their preferences are time-consistent. For example, these individuals are convinced that when future arrives they will be able to maintain the same level of consumption as it was planned. On the contrary, sophisticated people are aware of self-control problems and they try to bind themselves to avoid undesirable outcome or at least think through possible reactions to their future “improper” behavior. Their intertemporal choice is not so straightforward as in case of “naives” but is influenced by pessimism and incentive effects. Whereas the former one contributes to sophisticated people’s negative outlook on their future behavior due to existence of self-control problems, the latter one leads to their resistance of today’s temptation in order not to yield to future temptations. As the effects work in opposite directions, the outcome of intertemporal decision-making depends on their relative magnitudes.

2. Behavioral economics and marketing

This part of the paper is devoted solely to ways and examples of using behavioral economics in marketing.

Barta and Bartova in their book “Homo spotřebitel” (2012) warn of various pitfalls which marketers may encounter while questioning respondents. Individuals tend to suppress different motives and they are likely to be unconscious of this if their certain areas (memory, feelings, thoughts, etc.) are blocked. In addition, there is a risk that a respondent will mention only obvious or superficial reasons which incentivized a purchase whereas his or her real motivation may have deeper roots. People also tend to distort their answers to questions related to inexperienced phenomena (e.g. future buying behavior) as they cannot foresee all new conditions and their influence on the decision-making (Barta & Bartova, 2012, p. 181). All this serves as evidence of human *bounded rationality*, which is important to be aware of to avoid (or at least minimize) wrong conclusions made as a result of marketing surveys.

Interviewers should not also forget about *context dependence*. The notion of product under consideration strongly depends on the mood which dominates in a focus group. On the basis of his research (as cited in Rubinson, 2010) George Loewenstein concludes that individuals in a “cold” state underestimate the influence of such emotions as anger, sexual arousal, hunger, etc. on their future behavior and preferences. In addition, survey results can be biased because of interviewer’s personality. This may lead to responses uncovering false motivations, which have nothing in common with real behavior. Another example of *framing* is concepts which are used during the interview or in questionnaires. People may perceive the same term differently depending on their experience, knowledge or current situation. Linguistic research has uncovered another interesting fact: “consumers prefer a bank that says that they will earn 5 percent on their savings vs. one which pays 5 percent on these accounts” (Grapentine & Altman-Weaver, 2009, p. 16). Therefore, interviewers should avoid substituting questions like “How do you feel about our 10 percent increase of energy efficiency?” for questions like “What do you think about 3 percent reduction of your heating costs achieved by higher energy efficiency?”.

Marketing surveys are only one of numerous situations when marketers act as *choice architects*. By changing location of a product in the store, they can achieve substantial sales growth similarly to Carolyn from “Nudge: Improving Decisions about Health, Wealth, and Happiness” (as cited in Rubinson, 2010). As a result of rearrangement of cafeteria, she was able to reach 25 percent increase in the consumption of certain food items. By excluding situations which are known to “poison” buying experience, marketers can successfully promote their new products. During launch Daewoo created a desirable *context* for potential customers by promising “that its showrooms would have fixed prices and no salesmen” (Southgate, 2010, p.37). By discussing a particular attribute with consumers, marketers can make it more significant in consumers’ subsequent decision-making. In one field study (Jain, 3 January 2013) researchers asked customers who were going to buy laptop computers about their memory needs (first group) and processor-speed needs (second group). Priming of the above mentioned attributes resulted in purchases of computers with higher memory (processor speed) by individuals from the first (second) group. By adding irrelevant alternatives, marketing experts can reverse consumer preferences. In this connection the Economist’s idea with subscription fees should be mentioned. In the beginning there were two options available:

“online only” subscription for \$59 and “Internet + print” subscription for \$125. Obviously, the latter offer was more attractive for publishers; however, only a few people (32% of students in the experiment conducted by Dan Ariely (May, 2009)) have chosen it. Then the third option (“print only” subscription for \$125) was introduced. Understandably, it wasn’t chosen by anyone but created a new *context* where the majority of people (84% of students in the same experiment) started to consider the second option the most alluring¹⁸.

Context can be considered as unfavorable if consumers feel confused by choices they face. To eliminate or at least mitigate the problem of choice overload, marketing specialists use several strategies. The most straightforward way is to decrease the number of options available. It can be done differently: either by unification of brands (e.g. P&G) or by selling a single product (e.g. Red Bull). By limiting the number of items to four or five in its dinner menu, McDonald’s has successfully shifted its customers’ attention from affluent choice to speed (Southgate, 2010). Another way to reduce a risk of *choice avoidance* is to provide consumers with a default option which will serve as a cue to the right decision. Categories are often considered to be one of the most favorite “safety nests”. Iyengar, Mogilner, and Rudnick (2008) provided a number of valuable insights in changes of consumer satisfaction¹⁹ resulting from assignment of products to groups. According to findings from their first experiment (where some participants had to choose a familiar magazine while others – an unfamiliar magazine²⁰ from the displays with three or eighteen categories of magazines), preference constructors experience higher satisfaction in case of more categories thanks to higher perceived variety. As a result of the second experiment (where participants had to choose coffee from one of four randomly given menus²¹), researchers have found out that mere existence of classifications leads to preference constructors’ higher satisfaction²². The reason for this lies again in higher choosers’ perceived variety²³ which in turn positively influences their feelings of self-determination. Interestingly, preference constructors’ satisfaction wasn’t influenced by the extent to which a chosen option corresponded to an “ideal” one²⁴. Consumers feel happier just believing that they have made a choice and attained the best option possible.

Great marketing specialists always bear in mind that consumers have *limited attention*. According to Goethe “One sees only what one knows”. In other words, humans have selective perception of things which in the majority of cases is limited to dominant features²⁵. If some components are inconsistent with a person’s general idea of an object, he or she tries to suppress or *isolate* them. Usually it’s an unconscious (or nearly unconscious) process which in case of consumer is aimed at creating a consonant picture of a product (Barta & Bartova, 2012).

Knowledge of *reference point* is vastly used in marketing. In many cases consumers set “psychological boundaries” by sticking to a specific level of price or certain brand(s). For example, individuals with high income are sometimes unwilling to buy things for a price which is below their adaptation level because this may jeopardize their social status or prestige. For the same reason rich people tend to buy expensive clothes and cars to convey information about their success to the rest of society. On the other hand, for people from the middle and lower social classes wealth is an absolutely different reference point because they find luxury lifestyle humiliating. Knowledge of strong price influence on consumer psyche may enable marketers to shape consumer preferences (to a certain extent). In the experiment described by John Lehrer in his book “How we decide” (2009) the participants reversed their preferences for wine, which were initially determined by its taste, as a result of receiving information about prices. They started

¹⁸ Reversal of preferences can also be explained with knowledge of *isolation effect*. After introduction of the third alternative individuals started to focus on comparing it and the second alternative because the choice between them was straightforward: on the basis of distinctive components (while common ones were cancelled) people were able to easily conclude which alternative was inferior.

¹⁹ We will be interested only in consumers who didn’t have experience with the product in question.

²⁰ Researches called them preference matchers and preference constructors respectively.

²¹ The first one categorized coffee by attributes of its flavor, the second one – by names of fictitious coffee shops, the third one – by letters from the alphabet and the fourth one didn’t have any categories at all.

²² To exclude influence of flavor on consumers’ satisfaction, participants were served the same type of coffee (unknown to them).

²³ The level of perceived variety doesn’t depend on informativeness of the category label.

²⁴ It was found out that in case of less informative category labels it was more difficult for preference constructors to identify the best option.

²⁵ In addition, people tend to perceive a thing as a whole instead of sum of its parts.

to find the \$90 bottle more pleasant than the \$10 bottle. Moreover, when they tasted the same wine (which was in the first case labeled as \$5 wine and in the second case - as \$45 wine) they showed preference for more expensive “type”. Thanks to an fMRI machine, scientists were able to see the activation in different regions of participants’ brains. Orbitofrontal cortex is likely to be responsive to the price rather than the product itself because during the observation it was generally more excited in case of more expensive wines.

Although in many cases consumers are guided by price, sometimes they give top priority to other factors. Discounts are likely to have maximum psychological effect if beforehand marketers succeed in ascertainment of solid *reference point* by persuading consumers into high quality of their product²⁶. If they fail to do so, consumers will possibly perceive a price reduction in a negative way (Barta & Bartova, 2012). On the basis of their analysis of used car market Betts and Taran (2006) suggest that instead of positioning a product as much superior to existing pretty low standards (which serve as a *reference point*) marketing specialists should focus on raising consumer expectations of all used cars. It’s always easier to persuade a consumer that you meet the existing standards (therefore, you should set them high) than to convince him or her of your product’s exceptional nature²⁷. While launching a new product into the market, it’s often not possible to base a *reference point* on the past price. Therefore, marketers try to shift “psychological boundary” to another dimension, such as expectations or associations. By persistently offering free trials and test drives, they try to convince a consumer that if a person doesn’t purchase the product today, he or she will suffer a loss (Ho, Lim & Camerer, 2006). By packing its product in decanter-style bottle (which consumers associated with expensive brandy), small startup company E&J was able to overthrow market leader Christian Brothers whose packaging looked like the wine bottle. By connecting their product to certain society’s traditions, marketers touch upon the very influential reference point. For example, people gathering for a baseball game at Busch Stadium in St. Louis cannot imagine this social event without Budweiser beer (Grapentine & Altman-Weaver, 2009).

To achieve a desirable result from great deals and discounts, marketers should never forget about several things. Firstly, to trigger *loss aversion* effect limited time offer should include a reason which a consumer will use to post-rationalize a purchase²⁸. Secondly, as a result of loss aversion, individuals are more sensitive to negative price changes than to positive ones what is labeled as asymmetry of price elasticity. This can lead to “zero-effect” from a price decrease if consumers perceive the product under consideration as overpriced. In human decision-making the feeling of dissatisfaction from a price rise (loss) has higher weight than feeling of joy of the equal-sized price reduction (gain). Thirdly, consumers tend to prefer irregular price promotions over frequent ones. When the price goes down too often, consumers get used to its reduced value and start to perceive it as a new *reference point*. Therefore, individuals start to consider non-promotion periods as time when they suffer losses, and consequently the sales fall. On the contrary, according to Greenleaf (as cited in Liu, 1998), irregular promotion might lead to increase in profits as a result of higher consumer sensitivity to gains. Fourthly, consumers will be willing to pick your deal if it implies sure profits. Owing to *certainty effect*, individuals are likely to choose the option “buy one, get one free” over the option “scratch the coupon and 1 out of 10 will win \$50²⁹”.

²⁶ It goes without saying that created image should not be deceitful. Otherwise, one-time decent profit and neglect of consumer’s loss averse behavior will cost company much higher subsequent losses: a consumer may never repurchase its product and is likely to share his or her negative experience with others.

²⁷ As consumers are guided by average standards, they will simply not appreciate (or inadequately appreciate) that your product is the only one which is significantly above the reference point.

²⁸ For example, “we started to sell this book only a week ago and it immediately gained wide popularity. There are only 2 copies left.” A consumer is likely to buy the above mentioned book because afterwards he or she can easily justify the choice: “I would have regretted losing this chance. Normally new books are not selling so quickly. Tomorrow at the latest they will sell out the rest.”

²⁹ In the strict sense of the term, certainty effect implies equal overall utilities of compared prospects. For our case it means that the product is worth \$5. However, consumers will likely prefer the former option even if the product price is slightly lower than \$5.

Understanding the reasons of *loss aversion* and determination of its degree³⁰ for specific situations, things and people can enable marketers to design products which will be particularly profitable for their companies. *Loss averse* behavior is likely to underlie the success of extended product or service warranties (Ho, Lim & Camerer, 2006). Consumers are so afraid of losing newly bought goods that they are willing to pay some extra money to decrease the probability of hypothetical loss. In addition to new products, deep insight into loss aversion (particularly understanding how to change it and identifying discrepancies between the predicted and experienced degree of loss aversion) can strengthen the positions of the existing ones. For example, many insurance companies have sparked surge of interest from potential consumers by launching advertisements showing scary consequences of unforeseen tragedy (thereby changing people's perception of a particular situation and increasing their degree of loss aversion).

At first glance, it seems that knowledge of *self-control problems* is essential only for marketers who work with products implying "immediate costs with delayed benefits (visits to the gym, health screenings) or immediate benefits with delayed costs (smoking, using credit cards, eating) and temptation" (Ho, Lim & Camerer, 2006, p. 316). However, if we recall that all consumers can be classified as "naifs" or "sophisticates", it becomes immediately clear that every company (regardless of a product(s) it sells) can benefit from knowledge of preference for immediacy. Although sophisticated consumers are more resistant to current indulgence, marketers seem to discover a clue to their psychology and find the ways of triggering their desire for instant gratification. Do you feel doubtful about purchase of our product because you know that its everyday use gradually deteriorates your health? Well, we have an option for you – an absolutely harmless small package. Do you avoid going to "a chocolate wall" because you decided to lose weight? Well, remember how happy you feel eating your favourite sweets. Do not worry; we will give you one more chance: we have placed them next to the cash register. Do you foresee that you will not be able (or willing) to read 25 articles daily which subscription to our magazine allows? Then why should we motivate you to subscribe with high discounts³¹? Do you think that you won't benefit from the discount voucher because during its validity time you're likely to forget about it or get lazy to proceed with receiving cash? Then we will shorten a redemption period or even offer you an instant rebate³².

Conclusion

It's clear, therefore, that behavioral economics can serve as inspiration to marketing specialists. Knowledge of bounded rationality, context dependence, reference point, loss aversion, limited attention, choice avoidance and self-control problems can help them to avoid mistakes while designing questionnaires or interviewing respondents, change consumer preferences, make strong sides of their products more salient (or dominant) and their customers' shopping experience more pleasant, simplify consumer decision-making, use the power of price and other "psychological boundaries" to their advantage, increase the effect of sales promotions, raise profitability of both their existing and new products and predict their customers' future behavior.

By continuously providing marketing experts with illustrative examples concerning successful use of their findings in marketing, behavioral economists can eventually cope with the challenge of triggering the interaction between psychology- and economics-based research. On the other hand, marketers should exercise their own initiative by becoming more closely acquainted with "econopsychological" literature. Instead of looking forward to central bank intervention aimed at stimulation of domestic consumption, it's always possible to heat up demand by incorporating behavioral anomalies in marketing strategy.

³⁰ Although Kahneman and Tversky assumed constant loss aversion (average value of the relevant coefficient is 2.4), individual ratios differ. It's worth mentioning that values can vary not only among individuals but also among different time periods for the same person. For example, Johnson, Gaechter and Herrmann (2006) conducted an experiment with auto buyers which showed that a person will probably become less loss averse to a particular attribute (such as comfort, safety, fuel consumption, etc.) if he or she has gained relevant knowledge. On the other hand, loss aversion increases with age.

³¹ According to Oster and Morton's findings (as cited in Ho, Lim & Camerer, 2006), subscription fee has a higher share on newsstand prices in case of "investment" magazines (which are assumed to be bought by mainly sophisticated consumers) compared with "leisure" magazines (which are likely to be preferred by "naifs").

³² In case of myopic consumers marketers are likely to attract them with relatively high discounts and long redemption periods.

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