

# THE ROLE OF BEHAVIORAL ECONOMICS IN EXPLAINING CONSUMPTION DECISION

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## Abstract

*The new economic approach starts from the idea that the individual does not need food, but feels the need to feed, or do not require newspapers, but feels the need of information. In this way, those who changes are not human preferences, but the way we satisfy them. At this stage of the paper, we explain the inconsistency in consumer preferences and the exceptions to the standard theory by making light upon what is called in behavioral economics: the effects of property, loss aversion and framing effects. In which concerns the standard economic model, it seems that there are discrepancies between objective measures of sources of comfort / discomfort and measures reported subjective sensations. Many defenders of classical model would argue that the measures are not reported subjective feelings of economic phenomena and therefore are not of interest to economists. However, when such feelings and sensations affect or may affect future decisions, things become relevant for the economy. Limited Rationality implies both that the agent is imperfectly informed decision-making in a complex and dynamic environment, and a limited ability processing.*

**Keywords:** *standard model, exceptions, framing effects, loss aversion.*

## 1. Introduction

In an ideal world, defaults, frames, and price anchors would not have any bearing on consumer choices. Our decisions would be the result of a careful weighing of costs and benefits and informed by existing preferences. We would always make optimal decisions. In the 1976 book *The Economic Approach to Human Behavior*, the economist Gary S. Becker famously outlined a number of ideas known as the pillars of so-called 'rational choice' theory. The theory assumes that human actors have stable preferences and engage in maximizing behavior. Becker, who applied rational choice theory to domains ranging from crime to marriage, believed that academic disciplines such as sociology could learn from the 'rational man' assumption advocated by neoclassical economists since the late 19th century. While economic rationality influenced other fields in the social sciences from the inside out, through Becker and the Chicago School, psychologists offered an outside-in reality check to prevailing economic thinking. Most notably, Amos Tversky and Daniel Kahneman published a number of papers that appeared to undermine ideas about human nature held by mainstream economics. They are perhaps best known for the development of prospect theory (Kahneman & Tversky, 1979), which shows that decisions are not always optimal. Our willingness to take risks is influenced by the way in which choices are framed.

Consumption differs from consumption expenditure primarily because durable goods, such as automobiles, generate an expenditure mainly in the period when they are purchased, but they generate "consumption services". Neoclassical (mainstream) economists generally consider consumption to be the

final purpose of economic activity, and thus the level of consumption per person is viewed as a central measure of an economy's productive success.

The study of consumption behaviour plays a central role in both macroeconomics and microeconomics. Macroeconomists are interested in aggregate consumption for two distinct reasons. First, aggregate consumption determines aggregate saving, because saving is defined as the portion of income that is not consumed. Because aggregate saving feeds through the financial system to create the national supply of capital, it follows that aggregate consumption and saving behaviour has a powerful influence on an economy's long-term productive capacity. Second, since consumption expenditure accounts for most of national output, understanding the dynamics of aggregate consumption expenditure is essential to understanding macroeconomic fluctuations and the business cycle.

## 2. Content

In the study of consumption, economists generally speak about a common theoretical framework by assuming that consumers base their expenditures on a rational and informed assessment of their current and future economic circumstances. This "rational optimization" assumption is untestable, however, without additional assumptions about why and how consumers care about their level of consumption; therefore consumers' preferences are assumed to be captured by a utility function. For example, economists usually assume (1) that the urgency of consumption needs will decline as the level of consumption increases (this is known as a declining marginal utility of consumption), (2) that people prefer to face less rather than more risk in their

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consumption (people are risk-averse), and (3) that unavoidable uncertainty in future income generates some degree of precautionary saving. In the interest of simplicity, the standard versions of these models also make some less-innocuous assumptions, including assertions that the pleasure yielded by today's consumption does not depend upon one's past consumption (there are no habits from the past that influence today's consumption) and that current pleasure does not depend upon comparison of one's consumption to the consumption of others.

But modern theories imply that rationality does not always apply in making consumption decision, most economists bring some plausible refinements to the original ideas. For example, the modern models imply that the marginal propensity to consume out of windfalls is much higher for poor than for rich households.

Research into the consequences of this type of "comparison utility" suggests that observable individual spending behaviour is much the same whether one cares about absolute or relative levels of consumption, because there is nothing that the typical individual can do to change the consumption levels of others. If, however, the pleasure yielded by an individual's current consumption depends partly on a comparison to that person's past consumption habits, then rational consumers will realize that they will be happier if they increase their level of consumption gradually over their lifetimes (instead of equalizing consumption at different ages, as the life-cycle model suggests). Habit formation also implies a very different reaction to income shocks that reflects a gradual adaptation to new circumstances.

While economic rationality influenced other fields in the social sciences from the inside out, through Becker and the Chicago School, psychologists offered an outside-in reality check to prevailing economic thinking. Most notably, Amos Tversky and Daniel Kahneman published a number of papers that appeared to undermine ideas about human nature held by mainstream economics. They are perhaps best known for the development of prospect theory (Kahneman & Tversky, 1979), which shows that decisions are not always optimal. Our willingness to take risks is influenced by the way in which choices are framed, this is to say that they are context-dependent.

The new economic approach starts from the idea that the individual does not need food, but feel the need to feed, or require newspapers, but feels the need of information. In this way, those which change are not preferences, but the way to satisfy them.

In terms of standard economic model, it seems that there are discrepancies between objective measures of sources of comfort / discomfort and measures reported subjective sensations. Many defenders of classical model would argue that the

measures are not reported subjective feelings of economic phenomena and therefore are not of interest to economists

However, when such feelings and sensations affect or may affect future decisions, things become relevant for the economy. Another weakness refers to the effect of expectations. There is some evidence that high expectations about the degree of happiness can lead to disappointment.

The conventional model it is assumed that a larger quantity of a good consumed produce more total utility. Regarding the nature of utility, in addition to the types of utility that we had in the previous subsection account, it is clear that the standard economic model for decision making under risk is "theory of expected utility".

It was widely accepted and implemented as a descriptive model of economic behavior and as a normative model of rational choice; that means that rational people would like to obey the axioms of the theory and, in general, they do it. Decision making under risk can be considered a process of choosing between different possibilities or "gambling".

A prospecting consists of a number of possible outcomes, along with their associated probabilities. Thus, any theory of choice under risk will take into account the consequences of the choices and their probabilities. All theories described so far were models of maximizing preferences, assuming that agents behave "as if" preference would optimize certain features specific to context.

Specific features of these models include the existence of limits of rationality and the consequence of using heuristic decisions.<sup>1</sup>

Limited Rationality implies both that the agent is imperfectly informed decision-making in a complex and dynamic environment, and a limited ability processing; agent targets may also be defined imperfect. One of the best known anomalies of expected utility theory is a phenomenon sometimes called "boredom happiness." For example, the average income in the US increased in real terms by more than 40% from 1972 to the present, but despite the fact that their level of income and welfare are far better, Americans usually say that they are not happier than before. The phenomenon seems to occur because experts can not rely on data reported by subjects; if examined other indicators of happiness or unhappiness, such as the suicide rate, the incidence of depression, we see the same thing. Expected utility theory of diminishing marginal utility and the concave shape of the utility function as the cause of risk aversion. This theory seeks to explain risk aversion in terms of expected value and dispersion. Next, the focus will be on the concepts of ownership effects, loss aversion and framing effects, that they find relevant in explaining consumer decision of the buyer.

<sup>1</sup> Decisions that are based on behavioral heuristic that ignores the often complex flowcharts and methodology of decision, intervening on experience, intuition or mental "shortcuts".

## a) The effects of property and loss aversion

In theory individual consumer choices are determined by an order of preference on consumer packages, independent of the effects of allocation. But Kahneman showed that preferences are subject to the current allocations and individuals are risk averse. This contradicts the theory transitivity and reversibility consumer preferences. It seems that more people demand to give up an object than would be willing to pay to get it.

Samuelson calls this effect "status quo" as a preference for current status. All these effects underlying loss aversion prospecting Theory developed as an alternative theory of choice under uncertainty. The essence of the phenomenon is that the utility is not independent of possession. It has been shown that people who have become good in one way or another, either through purchase or gift, tend to assign a higher evaluation than others would do it. For example, a study by Kahneman, Knetsch and Thaler (1990) made the subjects gift or a cup or a pencil, randomly. Both groups were allowed to exchange goods among themselves on a minimal transaction costs, and if preferences were independent of the effect of ownership, one would have expected that the amount fraction of subjects who changed pen cup and back to equal to one.

It was noted that only a quarter of the subjects were making the transaction. The main factor underlying psychological effects of loss aversion is property. A person is risk averse if they prefer definite prospect (x) any risky prospect which has expected value x. The expected utility theory, risk aversion caused by the concavity of the utility function. This feature is in turn explained by the law of diminishing marginal utility. An example is the observation of asymmetric elasticity of demand for goods in the price. Elasticity to price sensitivity is defined as the amount required in relation to price change, both expressed as a percentage.

Loss aversion consumers are disturbed by price increases gain more than they like you would get the discounts and reduce the amount purchased as a result of price increases more than if they had raised it if the price would be reduced by the same

percentage. Therefore, loss aversion implies that the price elasticity to be asymmetrical, being more elastic demand when price increases than when it drops.

## b) Framing effects

This is one of the most important phenomena of behavioral economics which violates the principle of invariance. Numerous studies have established that people answer - in terms of values, attitudes and preferences - depends on the context and the processes involved in getting these answers. For example, when subjects were asked to assess the overall level of happiness, their response was influenced by a previous

question related to the number of previous meetings they have had lately. This is an example of the effect of anchor: for this effect, people's answers are "anchored" to the other phenomena existing in their consciousness, no matter how irrelevant they may seem.

Framing effects are particularly important because they produce a reversal of preferences. This phenomenon is related to situations where individuals are favorable to option A if the question or problem is laid or framed in a way, but changes its option and choose B when the same issue is posed differently. To illustrate the reversal of preferences we refer to a classic, often called the problem "Asian Disaster"<sup>2</sup>.

Framing positive:

Option A: save 100 lives with certainty

Option B: 1/3 chance to save the 300 men and 2/3 chance of not save any

Choice: Most choose A.

Framing negative:

Option A: 200 people die for sure.

Option B: likely to die all 300 2/3 and 1/3 chance to save all

Choice: Most choose B.

It should be noted that the options are identical in terms of possibilities result. This example illustrates, in addition to the framing effects, preference reversal, and loss aversion (saving lives is perceived here as a gain and death as a loss). There is also a situation where if individuals are to choose between two prospecting, one of which is clearly in advantage if they would not go to comparison with the status of others, it was concluded that they choose the option that gives them more utility having in consideration the fact that they feel superior to others from the perspective of the choice made. Here is the relevant concept of reference point indicating that views on the same subject are likely to change in time. It is often assumed in the analysis that relevant reference point in assessing gain and loss is the current status of wealth or welfare, but not always so. In particular, the relevant reference point can be the expected state rather than the current state, an example was given when we discussed about anomalies. The reference points are also strongly influenced by the status of others. In this case, the new information changes the reference point, turning what was previously considered a win in a loss. It seems that, in view of these considerations and psychological consumer choices may include some defects that can be explained using us what behavioral economics seeks to develop the foundations and additions to the standard economic model.

Rational consumer behavior is considered to be one that provides maximum consumer satisfaction with a minimum cost maximum efficiency. The fact that there are many needs in the context of limited resources makes the consumer to choose the priority

<sup>2</sup> "Choice, values and frames", D. Kahneman, A. Tversky, American Psychologist, p.341-350.

criterion. The opportunity cost in this context is seen as abandoning consumer value. All decisions about spending an amount of money will be made taking into account the opportunity cost. Additional costs and benefits of an election should be measured not only in money but in terms of risk and comfort. We can refer to a psychological cost defined as the sacrifice made by the buyer in just moments choice of product variants and abandoning others, that is to say that each decision entails opportunity costs.

### 3. Conclusions

Tversky and Kahneman's work shows that responses are different if choices are framed as a gain or a loss. When faced with the first type of decision, a greater proportion of people will opt for the riskless alternative, while for the second problem people are more likely to choose the riskier. This happens because we dislike losses more than we like an equivalent gain: giving something up is more painful than the pleasure we derive from receiving it. Decisions are not always optimal. There are restrictions to human information processing, due to limits in knowledge (or information) and computational capacities (Simon, 1982; Kahneman, 2003). People are supposed to be rational when they make the best possible use of limited information-processing abilities, by applying

simple and intelligent algorithms that can lead to near-optimal inferences. The idea of human limits to rationality was not new among the economists, but Tversky and Kahneman's 'heuristics and biases' research program made important methodological contributions, in that they advocated a rigorous experimental approach to understanding economic decisions based on measuring actual choices made under different conditions. A good portion of the research he discusses involves prices and value perception.

As far as we know, the model of rational decision making assumes that the decision maker has full or perfect information about alternatives; it also assumes they have the time, cognitive ability, and resources to evaluate each choice against the others. This model assumes that people will make choices that will maximize benefits for themselves and minimize any cost. Rational decision making models involve a cognitive process where each step follows in a logical order from the one before. By cognitive, I mean it is based on thinking through and weighing up the alternatives to come up with the best potential result.

Indeed, this is true in the majority of time but as well, it is required to have into consideration the anomalies that occur in this process and the external or psychological factors that is demonstrated to alter the consumption decision.

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