# BEHAVIORAL ECONOMICS AND THE NEED OF PSYCHOLOGY IN ECONOMIC RESEARCH

PhD Student **Andreea GRADINARU** Alexandru Ioan Cuza University, Iaşi, Romania gavrilutaandreea@yahoo.com

#### Abstract:

The turning point in economic science has now come, marked especially by triggering the biggest crisis since the Great Depression of '29-'33, has called into question the need to reconsider the status of economic science and finding ways in which it can increase its practical foundations. In the elaboration of this study I've took into account the fact that beyond any abstract, formal and mathematical model, economics is a science, having the man in its center. Furthermore, every economic process is based on the human being. But the way individuals behave does not follow precisely the pattern predicted by classical and neoclassical models, but most of the time they are making decisions under the influence of psychological factors. Starting from these assumptions I considered important to highlight a real need for psychology in economic research. Therefore, the aim of this work is exclusively theoretical meant to show that the study of psychological factors is necessary in economic research, because it allows a better explanation of the economic problems and lead to obtaining results closer to reality than those who only take into consideration economic factors. In this way I appealed to behavioral economics. This represents a new trend of economic thinking that reunites psychology with economy. The thing that I observed after finishing the study is that behavioral economics can increase the explanatory power of economics by providing more realistic psychological bases, because human behavior is not only the subject matter of economics but psychology too.

Key words: behavioral economics; psychological factors; economic process; economic behaviour; interdisciplinary approach.

JEL classification: D01, D11

#### **INTRODUCTION**

An important issue that present economic science confronts is the desire to take into consideration the psychological element in the study of economic processes.

This necessity becomes increasingly higher due to excessive fragmentation of economic trends. In the last about 50 years, during what has been called by specialists "fragmentation century", economic theory has seen a real segmentation, in which scientists "cannot see beyond the cave in which they locked themselves, from narrowness of their own specialization" (Brăilean, 2009, p. 15). Therefore, economic thinking needs more and more an integrative, interdisciplinary approach to make connections, to be able to catch the important lines that are really significant to the current movements of economic thinking (Brăilean, 2001, p. 22).

On the other hand, the tendency to run some protocol and technocratic beliefs in economic science is a real obstacle in understanding the real economic processes. In the name of accuracy, often are ignored in economic analysis, important psychological aspects as: individual and social desires, behaviors, motivations that control the conduct of the economic operator, and so on.

In this way, M. Ralea and T. Herseni noted that wherever people exist and act, the human psyche is also present; there is no social phenomenon-and therefore no economic- without psychological implications or aspects. Moreover, since the ' 50s, last century, George Katona, pleaded for psychology in economy, saying that the need for psychology in economic research lies in the need for discovery and analysis of the forces behind economic processes, which are responsible for the decisions, actions and economic choices; economy without psychology cannot explain important economic processes and psychology without economics cannot explain certain aspects of human behavior. The same author says that human beings are not some puppets manipulated by external forces; on the contrary they are equipped with conscious attitudes and behavior, thought and willpower.

Thereby, the study of the psychology is human behavior considered in various circumstances, including economic ones and the object of study of economic science is the human factor, which appears in the economic processes whose behaviour is manifested in various ways. In other words, psychology and economics are two complementary sciences that through interrelation can offer each other support in order to obtain better results, which would improve the research of both disciplines. In economics are certainly present a multitude of processes that without the contribution of psychology could not be explained or explored, but also the economic science determine situations in which it can deepen the study of human behavior.

The distance between the two sciences was reduced considerably with the advent of a new direction of scientific research, the behavioral economics. It proposes a multidisciplinary study, burrowing mainly elements from psychology, sociology, and philosophy, cognitive sciences, in order to be able to analyze the empirical phenomena of economics (Berg, 2003, p. 419). Behavioral economics starts from human behavior hypotheses, hypotheses that reflect the results of psychological studies, analysing the individual in his many forms of manifestation.

So, what I want to emphasize in this paper is that for a correct and complete analysis of the economic processes should be taken into account the psychological aspects supported by behavioral economics that moves rational behavior from the traditional terms presented by classical and neoclassical economic literature in the new coordinates.

Therefore, the aim of the present study is to present the need of interrelation between economics and psychology, mainly appealing to behavioral economics. The conclusions of the paper show that behavioral economics can increase the explanatory strength of the economy, by providing more realistic psychological bases, because human behavior is not only the subject of economy but psychology too.

## **BEHAVIORAL ECONOMICS**

Although the term behavioral economics is relatively new, the field of interest of this discipline has its origins in the work of the great classics, when microeconomics was closely linked to psychology. For example, the father of economics, Adam Smith (2006), in his book Theory of Moral Sentiments, has proposed psychological explanations of individual behaviour, and Jeremy Bentham described in detail the psychological basis of utility (Spiegel, 1991, p. 341-343).

However, neoclassical economists have tried to remodel the discipline as a natural science, developing the concept of homo oeconomicus rationalis. On the other hand, even from within the neoclassicism, many important voices have promoted explanations that did appeal to psychology, including Francis Edgeworth, Vilfredo Pareto and Irving Fisher. (Camerer and Loewenstein, 2004, p. 3-5). A relevant example in this way is Irving Fisher, who, though author known mainly due to quantitative theory of money, considered a representative of the neoclassicism, was also a supporter of inter-temporal elections and monetary illusion, his contribution being considered a central shaft of multidisciplinary study (Thaler, 1997, p. 439).

Moreover, it can be argued that the economic literature encompasses recursive debates about the meaning of the concept of rationality and maximizing models based on the behavior of individual consumers and firms, in this sense, could be reminded the work of famous authors in the field like J. M. Keynes (1970) or von Hayek (1945). John Maynard Keynes was the one that took into account at macroscopic level the human psychology in the study of economic processes. By analyzing the relations intake-saving-investment-employment, he introduced psychological functions linked with fundamental laws such as those relating to: inclination towards consumption, investments and savings.

In 1950, Herbert Simon, later Nobel Prize Laureate in economics, has promoted the reunification between psychology and economics. He supported the theory based on algorithms that incorporate cognitive mechanisms of individual and he recognized the limited rationality of homo oeconomicus, but promoting interesting ways to study the behavior mathematically (Simon, 1955). However, behavioral economics is generally associated with the pioneering work done by George

Katona (1951). In 1986, at the University of Chicago took place the first major academic event which focused on behavioral economics, an event that brought together economists, psychologists and sociologists. In 1988, economists Hersh Shefrin and Richard Thaler introduced the theory of saving model "the behavioral life cycle", which refers essentially to the fact that people prefer immediate satisfactions and not consumptions and expenditures balanced over long term. In 1994, David Laihson starts to teach behavioral economics discipline at Harvard University, and in 1999 The Quartely Journal of Economics dedicates him a whole number. In 2003, the Federal Reserve Bank of Boston invites the members of the academic world to a debate on the topic of behavioral economics (Urse, 2009, p. 400), being increasingly more often cited along with the onset of economic crisis in 2007.

In a study often cited, Rabin (1998, p.11) presents behavioral economics as psychology and economics, often used synonymous to describe this discipline. The author states that, because the psychology explores systematically human judgment, conduct and wellbeing, it can provide important information for economy about how human characteristics differ from those indicated in the traditional economic postulates. According to Kahneman (2003), economists often criticize psychological research because of their errors and biases, but rational agents of economic models are psychologically unrealistic. Psychology can explain phenomena with integrative concepts that cannot be explained by economics.

Behavioral economics seeks to explain why people do not always behave selfishly, why don't always act the most logical from economic point of view or why they assign a higher value to some objects than other objects that have the same real value. Moreover, behavioral economics tries to provide answers as pertinent as possible for non-selfish behaviors (such as altruism, spirit of justice, tastes, etc.), which had been ignored in traditional theory (Frank, 2006, p. 231-256). In this direction, Gary Backer, Nobel Prize laureate, although not a member of the behavioral economists, argue that "when the studied behavior can no longer be explained according to income or prices, the explanation can be found in the change in tastes" (Becker, 1998, p. 139).

Behavioral economists propose to broaden and improve the traditional ideas with decisionmaking models borrowed from psychology by multidisciplinary approach that it proposes.

However, it gives up some traditional ideas, mainly those that have underpinned the idea of economic rationality in the neoclassical concept of homo oeconomicus rationalis. In this regard, behavioral economics finds significant deviations from homo oeconomicus in the behavior of the human being. It seems that people are generally concerned about present prejudices, delusional models, standards, the illusion of money and the herd effect.

According to psychologists, people are variously influenced by fear of failure, of remorse and will often give up some benefits, just to avoid even a small risk of feeling that they have failed. Then, people are often influenced by external cues. For example, Dan Ariely argues that we see the things around us in relation to others and we do not have autonomy in thought; we have uncontrolled reactions to certain inputs such as free or zero; we have difficulties to take rational decisions when we are confronted with situations that require compliance with certain combinations of social standards (friendly applications, favors, affection) and economic rules (paying bills, prices) (Ariely, 2010, p. 87).

#### ECONOMIC BEHAVIOUR IN BEHAVIORAL ECONOMICS

Economic behaviour is a matter of debate, in the light of rational agent that seeks the best alternatives and takes the best decision, but also from the psychological point of view, revealing the motivations that violate this principle of rationality and that reflects and explains, in an appropriate manner the course and the meaning of contemporary economic life. Economic behaviour is a notion that has occurred in various disciplines over the years. Unfortunately, the efforts and studies of the various research areas have converged to treat the economic behavior mostly sequential, fragmented and less to a coherent and integrated vision. Each discipline has its own contributions to this concept, however, the core component of human behavior, the economic behaviour requires for the investigation an interdisciplinary approach.

Here comes the behavioral economics, which over the last few decades, started to give special importance to the achievements of other sciences, such as psychology, sociology, neuroscience etc., immersing them in economic research. In this regard, Rabin (1998, p. 41) argues that the study of human behavior must be integrated into the economy, and the malleable and effective psychological observations should not be avoided by economic researches.

According to standard economic model people act in a context of complete information, they know their preferences, their choices are always rational. In addition to the standard model come behavioral economics predictions which take into account all the fluctuations of human rationality that can be limited by emotions, the gregarious spirit, marketing manipulation or inability of individuals to estimate different probabilities.

Therefore, behavioral economics tries to explain (and ultimately to apply those findings in practice), why individuals are often making irrational choices and why the way they behave does not follow precisely the pattern predicted by neoclassical models.

In the study of this research field were numerous notable scientists. Herbert Simon has promoted the concept of limited rationality. According to this, individuals have a limited capacity to process the information, are not uniform, have subjective insights, not taking into account all existing information, as did classical economists. Simon, explains why this notion is crucial by citing Weber and Popper, who appreciated that the main task of the social sciences and even one of the main sources of legitimacy is trying to substitute rational explanations with irrational explanations of naturally behaviour produced by knowledge (Simon et al., p. 126). Furthermore, he argues that there is no perfect knowledge, which means that all economic activities implies risk.

Empirical studies by Amos Tversky questioned the assumption that investors are rational. In 1995, Tversky demonstrated the tendency of investors to make risk-averse choices in gains, and risk-seeking choices in losses. Investors have seemed very risk-averse for small losses but indifferent for a small chance of a very large loss. This violates economic rationality, as it is commonly understood.

Daniel Kahneman and Amos Tversky, published the article "Prospect Theory: an analysis of decisions under risk", in Econometrica magazine in which were introduced new and fundamentals concepts such as reference points, loss aversion, measurement of utility and subjective probability.

Daniel Kahneman, along with Amos Tversky showed that when potential earnings are put into question, most people have a behavior that indicates risk aversion (risk-averse), and when they are faced with potential losses, the same people become risk seekers (risk-seeking), having the conduct of a gambler who raises the stakes in the hope of eliminating losses. This finding has been demonstrated empirically through numerous investigations and led to rejection of the conclusions of the classical theory of anticipated utility developed by mathematician Daniel Bernoulli. The two have come to define and explain an entire series of "irrational" paradoxes observed in economic practice, such as the tendency to retain shares whose stock value has decreased, tend to sell shares whose value has increased, the ability of risking less after winnings and more after losses, making decisions according to the described goals and potential outcomes, etc.

Along with Amos Tversky and others, Daniel Kahneman established a basis of common human cognitive errors using heuristics and prejudices (Kahneman and Tversky 1972, Kahneman, Slovic and Tversky 1974).

Thus, researches have shown that individuals tend to mimic the gestures and decisions of others. There is so-called "social pressure" to conform to the crowd, even among professionals and financial market analysts. The effect of herd tends to minimize regret, since imitating others behavior induces a sense of comfort among individuals, as well as recanting of taking responsibilities (Muradoglu, 2010, p. 8). Gregarious behaviour also amplifies the effects of the economic and credit cycle as much as decisions are becoming more uniform (Rizzi, 2009, p. 89). Furthermore, individuals tend to focus on the present and to undervalue the future. The effect of this kind of behaviour lies in making decisions by individuals that they will later regret.

In 1988 Shefrin and Thaler have developed a pattern of saving "the behavioral life cycle". According to this model, people don't calculate the savings and expenditure rates so as to maintain a constant level of consumption during their lives. Instead, they discover, that people prefer immediate satisfactions and not consumptions and expenditures long-term balanced (Urse, 2009, p. 400).

The role of emotions and attitudes that define the decision-making process are beginning to be taken more into account in the context of behavioral economics, with an emphasis on the concept of emotional intelligence and the possibility of inducing the buying behavior through emotions or affective states that lies, mostly, at the base of cognitive dissonance.

Behavioral economics brings improvements in terms of classical explanation on consumer utility, completing economic vision with psychological aspects related to the consumer's decision, in this regard using: the usefulness of decision-making, utility of anticipation, experimental utility, residual utility, diagnostic utility, closely related concepts of behavioral economics tools such as employment effects, the effects of ownership, loss aversion and status quo. The buying decision should entail a certain state of satisfaction or better said of happiness.

Behavioural economics followers mention that constant negative relationship between consumption and happiness may be related to the fact that people are not aware of what creates a state of happiness or unhappiness. Every time when the consumer makes a decision and does not have the expected results or he finds an alternative that would have had a better result, is a candidate for regret. Can be taken into account both post-decision regret that appears after the individual has experienced the result of decision and regret in advance that makes its presence felt before the decision was made.

Thus, an effect that regret aversion can have is the consumer inertia. It is for this reason that behavioral economics followers stands the idea that buying decision must be dealt with, also in terms of opportunity costs and the regret that it entails.

## CONCLUSIONS

Through the present work we tried to emphasize the necessity of psychology in economic research, starting from the belief that through an increase in psychological bases realism of the economic analysis, will improve the economy in its own terms, generating theoretical perspectives and making more accurate predictions of the phenomena of reality.

Unfortunately, the traditional economic research the human factor is analyzed in mechanical terms and he is regarded as a variable without the psychological element. This approach is a wrong one, since the individual is a complex person, with actions that are materialized in failures and with incomprehensible behaviors for the economy. The reality is that people do not always act the most logical from economic point of view, but rather they are making decisions under the influence of psychological factors. Individuals repeat the same mistakes over and over again, they do not know to calculate the risks and make economic operations emotionally motivated, ideas captured very well by a new direction of scientific research, behavioral economics. This is a new trend of economic thinking, which reunites psychology with economy, that studies the individual in its many forms of manifestation and that has as main hypothesis the human behavior.

Therefore, the aim of the work was exclusively a theoretical one meant to show that the study of psychological factors nature is needed in economic research, because it allows a better explanation of the economic problems and lead to obtaining results closer to reality than those who only take into consideration economic factors.

In this respect, the studies accomplished by behavioral economics represent the living proof that psychology has long been the missing link in economic researches. In addition, we believe that, long-term, behavioral economics is desired to be a solution to the problems of the contemporary economic, like financial crisis, due to concern for the individual and for his role in economy, which will be subject of future research.

## REFERENCES

- 1. Ariely, D. (2010), *Irațional în mod previzbil. Forțele ascunse care ne influențează deciziile*, Editura Publica, București.
- 2. Ariely, D. (2011), Iraționalitatea benefică, Editura Publica, București.
- 3. Bäckman, Lars., Claes von Hofsten, (2002) -*Psychology at the Turn of the Millenium:* Cognitive, Biological and Health Perspectives.
- 4. Beker, G. S. (1998), Comportamentul uman. O abordare economică, Editura All, București.
- Berg, N. (2003), Normative behavioral economics, Journal of Socio-Economics, 32 (4), p. 411-427. Available at [http://www.utdallas.edu/nberg/Berg\_ARTICLES/BergNormativeBehavioralEconomics%2 0in%20J%20of20SocioEconomics.pdf].
- Camerer, C.F., Loewenstein, G. (2004), *Behavioral Economics: Past, Present and Future,* Camerer, C.F., Loewenstein, G., Rabin., M., *Advances în Behavioral Economics,* Princeton University Press, New Jersey, pp 3-53. Available at [http://www.hss.caltech.edu/camerer/ribe239.pdf].
- 7. Frank, R.H. (2006), *Microeconomics and Behavior*, Editura McGraw Hill Irwin, New York.
- 8. Hoch, S.J., Loewenstein, G.F. (1991), *Time- inconsistent preferences and consumer self-control,* în Journal of Consumer Research, 17, p. 492-507. Available at [http://sds.hss.cmu.edu/media/pdfs/loewenstein/TimeInconsisteConsumerSelf.pdf].
- 9. Kahneman, D., Slovic, P., Tversky, A. (editors). (1982). Judgment under uncertainty: *Heuristics and biases*, Cambridge, England: Cambridge University Press.
- 10. Kahneman, D., Tversky, A. (1979). Prospect theory: An analysis of decision under risk. Econometrica, 47(2), p. 263-292.
- 11. Kahneman, D., Tversky, A. (1984). *Choices, values, and frames. American* Psychologist, 39(4), p. 341-350.
- 12. Kahneman, D., Tversky, A. (editori.). (2000). *Choices, values, and frames*. Cambridge, England: Cambridge University Press.
- 13. Kahneman D., Slovic P., Tversky A. (1974). Judgment under uncertainty: Heurestics and biases, Cambridge University Press, p, 306-334.
- 14. Katona, G. (1951), *Psychological analysis of economic behavior*, Editura McGraw-Hill, New York.
- 15. Keynes, J.M. (1970), Teoria generală a folosirii mîinii de lucru, a dobânzii și a banilor, Editura Științifică, București.
- 16. Muradoglu, Y.G. (2010), *The banking and financial crisis in the UK: What is real and what is behavioural?*, Qualitative Research in Financial Markets, Emerald Group Publishing, 2(1), p 6-15.
- 17. Rabin, M. (1998), *Psychology and economics*, Journal of Economic Literature, Vol. 36, pp.11-46,
- 18. Ralea, M., Herseni T. (1966), Introducere în psihologia socială, Editura Științifică, București.
- 19. Rizzi, J. (2009), *Behavioral Basis of the Financial Crisis*, Senior Investment Strategist, CapGen Financial.
- Simon, H.A. (1955), A Behavioral Model of Rational Choice, The Quarterly Journal of Economics, 69(1), p. 99-118. Available at [http://www.math.mcgill.ca/vetta/CS764.dir/bounded.pdf].
- 21. Simon, H. A. (1959), *Theories of Decision-Making in Economics and Behavioral Science*, în The American Economic Review, 49 (3) p. 253-283.
- 22. Simon, H.A., Stedry, A.C. (1969), *Psychology and economics*, Lindzey, G., Aronson, E. (editors), *The handbook of social psychology* 5(40), p.269-314. Available at

[http://scholar.google.ro/citations?view\_op=view\_citation&hl=ro&user=9drMrkAAAAJ&c start=240&citation\_for\_view=9dMrkAAAAJ:MLfjN-KU85MC].

- 23. Smith, A. (2006), *The Theory of Moral Sentiments*, EdituraMetz Libri, SaoPaolo. Available at [http://www.ibiblio.org/ml/libri/s/SmithA MoralSentiments p.pdf].
- 24. Spiegel, H.W. (1991), The growth of Economic Thought, Editura Duke University, Carolina.
- 25. Thaler, R.H. (1997), *Iving Fisher: Modern Behavioral Economist*, American Economic Review, Vol.87, Nr.2, pp.439-441. Available at [http://faculty.chicagobooth.edu/richard.thaler/research/pdf/IrvingFicher.pdf].
- 26. Urse, L. (2009), *Lecturi și reflecții pe marginea unei probleme și a unei dezbateri*, Calitatea vieții, XX( 3-4), p.399-403.
- 27. Von Hayek, F.A. (1945), *The use of knowledge in society*, American Economic Review, 35 (4), pp. 519-530.
  Avaible at

[http://emillyskarbek.com/uploads/The\_Use\_of\_knowledge\_in\_Society\_-\_Hayek.pdf].