COMMITMENT AS A CONSTRAINT TO THE PURSUIT OF SELF-INTEREST

Prof. Dimitar KANEV, D. Sc. (Econ.)
Nikola Vaptsarov Naval Academy, Varna
E-mail: kanev@dkanev.com

Abstract: *By applying the behavioural economics approach and the findings of the empirical survey we conducted, this paper analyses constraints on the pursuit of self-interest. The objective is to transfer scientific insights about the impact which general rules of morality have on human activities; to establish what moral standards govern the community we researched and to provide new empirical evidence about the influence which the sense of duty has on human behaviour. Our research supports the thesis that people are governed by their sense of duty; they care about the well-being of other people and act responsibly and responsively, whether or not they benefit as individuals and groups; they also seek to treat others reciprocally and evaluate market phenomena from the perspective of their moral feelings. Unlike the Homo Economicus, real people are more moral, good-natured and attractive when treated in compliance with established moral standards and more immoral, evil and repulsive when treated contrary to them.*

Keywords: *fairness, social preferences, behavioural economics.*

JEL: A13, C90, D03.

Introduction

In his first major piece of work, 'The Theory of Moral Sentiments', Adam Smith recognizes our natural inclination to take care about ourselves because that is what prudence tells us we should do. Yet, since we are social creatures, too, we feel natural compassion for others; we strive for fairness and have virtues like sympathy, empathy, sharing and conscience. Regardless of our intrinsic momentary emotions and interests, we are all governed by our 'sense of commitment', perceived as 'our respect for the general rules of morality'. Adam Smith claims that although legal punishment and incentives might aim at accomplishing the same results, they could never be as consistent, immediate and efficient as conscience and the rules of propriety as dictated by nature and society (Smith, 1759).

Despite the proclaimed respect to the intellectual heritage left by Adam Smith, economic theory seems to have departed from many of his ideas under the influence of William Jevons, Carl Menger, Leon Walras and Francis Edgeworth since the 1870. Its focus was shifted on human action itself, and not its underlying motives; on the results, rather than the processes that had led to them; on what people do, rather than why they do it. (Camerer, Loewenstein, & Rabin, 2004)Thus, Homo Economicus acquired attributes which Homo Sapiens did not possess. Human behaviour was perceived to be fully rational, while human beings were believed to be pursuing the fulfilment of their self-interest. Francis Edgeworth even defined as the 'first principle of economics' the thesis that 'every agent is actuated only by self-interest'. Over the years, the scope of the concept widened significantly. Gary Becker contributed further to the theory of choice, and the utility function began to be associated with human preferences for the well-being of others, as influenced by the feelings of sympathy and love or aversion and resentment. Thus, in addition to market behaviour, the concept of Homo Economicus began to be applied to issues related to acts of charity and sacrifice, social commitments, family behaviour, voting at elections, health care and even terrorism. Sympathy and acts of charity and sacrifice began to be approached as instances of altruism which seek to maximise individual utility.

Proponents of the abstract analytical concept of Homo Economicus which presents human beings as fully rational and wilful pursuers of self- interest, justify that concept not with the feasibility of its assumptions about human behaviour, but with its ability to explain observed results in a logical and experimentally verifiable manner. In many cases, these results are compatible with the predictions of the rational choice theory. Homo Economicus is therefore considered to be an appropriate model for solving both 'prescriptive' issues (what must be done) and 'positive' ones (what is done in reality and the consequences it produces). Over the last 50 years, however, there have been numerous facts and phenomena which that theory cannot explain. While they were initially approached as 'anomalies', their occurrence and significance has grown so much that they began to attract serious attention. To explain these facts and phenomena, scientists have resumed their interest in Adam Smith's theory and the factors related to real human behaviour which go beyond the self-interest. (Thaler, 2016)

In his article, 'Rational Fools: A Critique of the Behavioural Foundations of Economic Theory', (Sen, 1977) the Indian economist Amartya Sen (1933 -), who was awarded the Nobel Memorial Prize in Economic sciences in 1998, proved that the pursuit of self-interest not only cannot serve as a feasible assumption but also leads to conclusions which contradict facts. Instead, he proposed the thesis that moral sentiments govern human behaviour, and that as Immanuel Kant pointed out, 'morality is based on duty, not on interest'. In his article, A. Sen broadens the narrow concept of Homo Economicus by introducing the notions of sympathy and commitment. He argues that sympathy, i.e. understanding and identifying with the situation, feelings and motives of other people fits well into the dominant economic theory and might be viewed as an **externality** and therefore does not require any major revision of existing economic models. According to him, sympathy is of selfish origin which is in line with self-interest. 'If the knowledge of torture of others makes you sick, it is a case of sympathy. Led by that sympathy, you will help the tortured person. This is selfish', clarifies Sen, 'because you will do so to alleviate your own suffering'. We could add that the same argument is true about sympathy and aversion, as well as the stronger versions of these sentiments, love and resentment. All they relate to personal well-being and therefore are selfish in nature and cannot be approached as instances of altruism. Sympathy and love make people suffer when someone else is in pain and feel happy when someone else is joyful. Alleviating other people's pain and giving them joy increases our own feelings of happiness and well-being.

In contrast to sympathy, the sense of commitment does not relate to individual well-being but to individual moral. Individuals have no self- interest to obey the sense of commitment since their own actions will not bring any benefit to them. 'If something does not make you feel personally better or worse off, but you think it is wrong and you are ready to do something to stop it, it is a case of commitment'. The sense of commitment often imposes moral values and choices which do not stem from, and often contradict personal preferences, inclinations, or moods. You will hardly be willing to pay your taxes when you do not have much money, or help other people when you yourself are sick, tired or in need of help. In such cases, obeying the sense of commitment denies the argument that agents choose the alternative which is most desirable to them. Commitment values '**drive a wedge between personal choice and personal well-being, and most traditional economic theories rely on the coincidence between them**.'

Amartya Sen tells a funny story to demonstrate the primary role of commitment in ethical judgments and individual choices. In his story, two boys find two apples – a big one and a small one. Boy A says to boy B: 'You choose.' Boy B takes the bigger apple right away. Boy A is offended and makes a comment that this is unfair. 'Why?', asks boy B. 'Which one would you choose if you were me?' Boy A replies: 'The small one, of course.' To which boy B replies triumphantly: 'Why are you complaining then? This is what you have now, anyway!' Sen comments that if boy A is complaining that boy B does not feel any sympathy for him, he has no grounds to do so, since B's choice is, in fact, an in instance of sympathy, for he gives boy A exactly what he wants. Boy A's reaction demonstrates that he finds it fair and expects boy B to act not driven by selfish sympathy but by an altruistic sense of commitment.

Another humorous hypothetical example Amartya Sen gives with apples, further develops the idea that the assumption of rationality cannot lead to right conclusions and that the pursuit of self-interest is not of primary importance when we consider the social context within which people make their decisions: 'A fictional character is at a dinner guest party. The character will probably have an apple from the plate if there are two apples left but will not do so if there is only one apple left.' This contradicts two neoclassical principles of rationality. According to the first one, individuals always seek to gain maximum utility with their consumption. According to the second principle, if there had been two apples previously and then there was only one left, the likelihood that someone would have the last apple should have increased from 50% to 100%, rather than drop to zero.

There are numerous examples like this one – both hypothetical and from real life. They illustrate the fact that in a number of cases human behaviour is not entirely selfish and that the pursuit of self-interest considers and sometimes even obeys the sense of commitment. It is formed by the socio-cultural environment and is materialized through people's consideration for the social norms of fairness, responsibility and responsiveness. Therefore, the concept of the Homo Economicus who is in pursuit of their self-interest should be elaborated further to account more realistically for various psychological and social factors of human behaviour.

Behavioural economics has taken a step further, trying to elaborate and add to that concept by integrating economic theory and the latest achievements of psychology, sociology and neurology. Behavioural economics accounts for the limited nature of individual rationality, will and selfishness (Mullainathan & Thaler, 2001) and approaches people as ‘individuals who think as a group’ and perceive the world both from a personal and a social perspective; take into account what other people have on their mind and often act as if their brains functioned within a network with the brains of other people (Tomasello, 2014).

Behavioural economics explains the compliance with social norms on fairness, responsibility and responsiveness with the fact that such compliance creates a sense of belonging to a specific group, which is essential to human nature in general. Following a group often serves the interests of an individual, especially when there is some uncertainty, insecurity or threat. Social environment is important even when following its actions contradicts common sense and self-interest or conflicts with the will of individuals and will lead to predicted unsatisfactory results. Due to social influences, individual behaviour may frequently contradict individual preferences while collective decisions may not account for the individual preferences of the members of a group. One example is the Abilene paradox when a group tends to make a decision and follow a course of action despite going against the preferences of individuals only because everyone in the group thinks this is what the other members want and is reluctant to oppose the majority and prefers to be a ‘team player’. As a result of human sociality and the constraints it imposes on the pursuit of self-interest, ‘ethical’ preferences often do not match ‘subjective’ ones and affect individual behaviour and choices, personal well-being and social development. They relate directly to the decision-making process in the sphere of public goods, redistribution, taxation, social protection, labour relations, litigation, tacit business agreements under oligopolies, etc. Therefore, contributing to the awareness of human behaviour and providing evidence on the impact of human sociality and the degree to which it limits or models the pursuit of self-interest is a theoretical and practical issue of primary importance.

The basic method which behavioural economics employs to assess the impact of sociality and the sense of commitment consists of behavioural experiments and surveys (Camerer, 1997). Evidence is sought through popular experiments like the **Ultimatum game** and the **Dictator game**; case studies with mutual punishment in which sanctions incur losses; presents exchange games; market experiments and surveys (Falk, Fehr, & Fischbacher, 2008). Such behavioural experiments and surveys have been conducted in many countries, in various versions and among participants with different personality features.

Colin Camerer summarises the findings of the experiments and games (Camerer, 2003). The conclusion is that people in general tend to consider the sense of commitment and to seek cooperation and fairness to a degree greater than predicted by the Homo Economus model. The intensity of that impact differs, though, and depends both on personal attributes and environmental factors. Young children, for example, are highly selfish, yet they learn social moral norms and become less selfish as they grow up (Camerer & Thaler, 1995). It was also established, that social standards had a weaker impact on less developed communities and a stronger one in societies with developed markets (Henrich, 2000). Albert Hirschman explains this phenomenon in line with the idea of Homo Economicus: successful trade civilizes relationships and rewards honesty and reputation (Hirschman, 1982). According to that view, compliance with the social norms of responsible behaviour and the fair treatment of others is of an instrumental nature and is dictated by the pursuit of personal gain. To be able to trade successfully, people need social approval and to gain that approval, they need to trust others and to act in compliance with established moral standards. Behavioural economics adopts that view and elaborates it further by paying attention to another causal relationship in which people trust others, act responsively and with empathy and obey social norms of fairness, led by their desire to belong to a group. The aim in this case is social approval and trade is the instrument for gaining it while personal gain is a related result. That view approaches trade and other types of interaction between people as a means of learning and adapting to general moral standards, including those of responsibility, fairness and responsiveness.

Over the past ten years, behavioural economics has been developing dynamically and the research work based on its perception of people, including the constraints on the pursuit of self-interest has been growing exponentially. It is still a fact, though, that the science is only at the initial phase of its development and needs to expand the scope of its empirical checks, while in terms of methodology it fails to offer a body of systematized theoretical knowledge and convincing empirical evidence, as well as a 'standard set of terminology and classification' (McAuley, 2008). The fact is, that the theory has been only slightly developed in our country. Some interesting scientific achievements have been made in terms of the issues related to the cognitive deformations and limited rationality in financial and economic decision-making, while issues related to the impact of social factors have hardly been researched at all. The aim of this paper is to transfer the achievements of global science on the impact which general moral rules have on human actions and to provide new empirical evidence about the impact which the sense of commitment has on human decisions and actions.

To do this, we define three scientific tasks: (1) to present the methods and findings of the empirical survey we conducted among students at the Naval Academy in 2015 and 2016, which was an adapted version of some classical surveys in the field; (2) to identify the moral standards of the surveyed community; (3) to analyse the impact of moral sentiments on personal choices and attitudes to market phenomena and the business practices which take them into account.

To conduct the scientific research, we will test the hypotheses that people are guided by their sense of responsibility, fairness and responsiveness; that they tend to sacrifice their resources without any benefit to punish those who violate common moral norms and to reward those who respect them; and support causes which they consider to be fair; that social responses are conditional and governed by reciprocity; that personal assessments and decisions are influenced by the framework and context of choice; that moral feelings bear an impact on the assessment of market phenomena.

Testing the above hypotheses will verify that the thesis that Homo Economicus is an appropriate normative model (explaining how people should act), yet to provide the answers to descriptive(how people actually act), diagnostic (why they act like that), predictive (what human actions lead to) and prospective questions (how human action can achieve its normative ideal), the thesis needs to be substantially developed and enriched from the perspective of behavioural economics, integrating the approaches of economics, psychology and sociology.

We need to outline the limitations of our research in advance. The lack of systematic theoretical knowledge about the issues, the specific characteristics of the sample and the chosen statistical method, a survey, prevent us from claiming that the results are representative and valid for all socio-economic groups or that the same results would be obtained in real-life situations. Nevertheless, we believe that they can contribute to acquiring further knowledge on related issues and to accomplishing broader objectives such as gaining a more realistic understanding of human behaviour; making more accurate predictions and designing more efficient policies and impact instruments (Camerer, Loewenstein, & Rabin, 2004).

This paper continues further with a presentation of the methods we have employed in our empirical survey and its major findings. These findings are then analysed and based on that analysis, we make some theoretical and practical conclusions. Finally, we provide a summary of the results we have obtained and make some recommendations on further research work to be done.

Research methods and findings

Sample

The object of the empirical research is first-year full-time civil students at Nikola Vaptsarov Naval Academy in Varna. The sample was formed on a voluntary basis. The number of participants is 254 people, which is 53.82% of the total number. The sample reproduces the characteristics of the general population with sufficient accuracy and is therefore representative. Before taking part in the survey, participants declared their informed consent to do so.

The Research

We used questions from earlier popular surveys as a benchmark for making comparisons and identifying specific features. To avoid any misunderstanding, we had the questions translated in Bulgarian. The sums to be distributed between the players were denominated in BGN, while their amount was determined with reference to the current exchange rate and adapted to the income level in our country. In October 2015, a trial survey was conducted among 47 people. The results were validated and after making some minor corrections in the questionnaire, we conducted the real survey in the period from December 2015 to January 2016. Each participant had to reply to five questions which were part of a questionnaire generated by a computer programme within a MOODLE interface. Our sample includes only the answers given in thoroughly completed questionnaires.

The first question had three versions, each of them targeted to a respondent selected by the computer programme. Respondents were randomly divided into two subsamples.

The respondents in the first subsample had to answer the first version of the question. The computer programme selected 125 people for that subsample. The question was: '*You are taking part in a game with another person. You do not know each other and your identity will remain secret. The other person will be given BGN 10 which he/she will distribute as they like. You can either accept or reject the offer. If you accept, the sum will be distributed between you as the other player has decided. If you reject the offer, you both get nothing. Under these conditions, what would be the minimum sum you would agree to receive from the other player?'*

This is the simplest behavioural game: a sum of money has to be distributed between two players. The first player proposes some agreement. If the second one accepts the proposal, the sum is distributed according to the proposal. If the second player rejects the proposal, both players get nothing. The game was first subject to serious scientific analysis in 1982 (Güth, Schmittberger, & Schwarz, 1982). Such formulation makes it possible to control all factors which complicate real-life relations and have an impact on the result. The rules are simple to avoid results which may be due to misunderstanding or confusion. This is a single shot game, which results in controlling the desire to build a reputation. There is no hierarchy in this game to exclude the effects of the 'principal-agent' problem which will undoubtedly occur in real-life relations between clients and lawyers, voters and politicians, employees and employers.

The question aims to find out the effect of the sense of responsibility, fairness and responsiveness on human decisions and people's reaction to an attitude which is viewed as contradicting these senses. According to the Neo-classical economic theory, under the Nash equilibrium, the sum which player 2 would agree to accept will be close to zero. The second player would agree to that sum as the only other possible alternative is to get nothing. The hypothesis we are testing with this question is whether the sums which are offered will be different from the Nash equilibrium.

The people in the subsample who did not take part in the 'Ultimatum' game were divided into two groups. A computer programme randomly again selected respondents.

Sixty-three people had to answer version two of the first question. The question they were asked stated: *'You will be given BGN 20 to share with another person as you like. You do not know each other and your identity will remain secret. You have two options available: you can either keep BGN 18 for yourself and give BGN 2 to the other person, or you can share the money with the other person so that each of you will get BGN 10.'*

In this version of the 'Ultimatum' game, the option that player 2 may 'punish' player 1 who distributes the money is removed, and the game is modified into a version of the 'Dictator' game.

The version tests the concept of Homo Economicus, and more precisely, the statement that people tend to cooperate and share due to instrumental reasons such as avoidance of punishment. If that statement be true, respondents would choose the first option as there is no threat of punishment in this version of the game. The choice of the second option in the context of the experiment would prove that the prevalent motives are of an altruistic nature.

The other 67 participants had to answer the third version of the question: *'Suppose that two people took part in a game and had to share BGN 20 with a stranger. The first player distributed the money equally, so that each party would receive BGN 10. The second player kept BGN 18 for himself and gave BGN 2 to the stranger. Which of the two options would you choose: to share the sum of BGN 10equally with the first player, or to share the sum of BGN 12 equally with the second player?'*

Here the pursuit of self-interest would prompt players to choose the second option. Homo Economicus would not incur any costs unless those costs would bring him greater economic benefits. If the opposite hypothesis is confirmed, that would mean that people care about the behaviour of other people, that their social preferences reject instances of selfishness and they tend to punish such behaviour even when they face the risk of economic loss.

There was no connection between the other questions in the survey and all 254 respondents had to answer them.

The objective of those questions was to test the manner in which the sense of fairness affects trust in other people in a market environment, as well as attitudes to market phenomena.

To find out the extent to which the participants in our survey tend to trust other people, we presented them with the following situation after adapting the classic 'investment' game (Berg, Dickhaut, & McCabe, 1995): *'You are one of the 10 people who take part in an experiment. Each of you is given five coins of BGN 1 and you must decide how many coins you will secretly put into a container. The sum thus collected will be used to fund a public project. The return on investment is 100%, which means that the collected sum will be doubled. At the end, the money earned on that project will be shared equally among all ten participants. How many coins would you put in the container?'*

If respondents choose to make a rational and selfish choice, the Nash equilibrium in this situation would mean that they will put no coins in the container. Under the threat of a **moral hazard**, the participants will be suspicious and will not make any investment. If this hypothesis is not confirmed, that would support the view that people prefer sharing, equality and reciprocity and this largely affects the choices they make. (Naef & Schupp, 2009)

The last questions relate to the evaluation of market phenomena. They are based on the classical paper of Daniel Kahneman, Jack Knetsch and Richard Thaler (Kahneman, Knetsch, & Thaler, 1986). The participants had to define as fair or unfair the following three situations:

Question 3: '*A store has been sold out of a popular doll for months. A week before Christmas a single doll is discovered in a storeroom. The managers of the store know that many customers would like to buy the doll and decide to sell it by auction to the customer who offers to pay the most.'*

Question 4: '*A store has been sold out of a popular doll for months. A week before Christmas a single doll is discovered in a storeroom. The managers of the store know that many customers would like to buy the doll and decide to sell it by auction to the customer who offers to pay the most. The additional profit made will go on charity.'*

Question 5: *'A grocery store sells a stack of bottled water for BGN 15. After an accident which has cut off the water supply in the neighbourhood, the store raises the price to BGN 20.'*

Statistical analysis

The statistical method we employed was an online survey. The online format of the survey did not affect the representativeness of the sample since all students who were included in the survey had free access to the Internet and the online survey. The research objective of the survey was to test the characteristics of the distribution of the answers to the questions which were asked. The statistical method we employed was a frequency analysis of the statistical indicators of number and percentage. Results were encrypted and analysed by exporting them from MOODLE and processing them in EXCEL.

The findings of the survey

Under the first version of the first question, which was a modification of the 'Ultimatum' game, rationality dictates that player 1 will offer a minimum sum while player 2 will accept the offer since he/she is aware that the other alternative is to get nothing. The hypothesis of such behaviour was not confirmed. Out of the 125 respondents in the survey, 123 gave valid answers and the average sum offered was BGN 4.56. In more than 86% of the cases, player 2 would not accept offers which were in line with the Nash equilibrium or close to it. Only 7 respondents replied that they would agree not to make any gain at all and only 10 responded that they would accept a sum equal to BGN 1 or less. In addition, 42 respondents (i.e. 34.15% of them) were willing to accept offers for less than half of the sum. In more than 20 countries where the experiment was conducted, the results were similar. Everywhere, the values considered to be acceptable ranged between a third and a half of the whole sum. Offers for less than half of the sum were only accepted in less than 50 per cent of the cases. The results were the same when money was really offered to anonymous participants who would never meet again (Henrich, Heine, & Norenzayan, 2010).

Under the second version of the same question, a modification of the 'Dictator' game, only 31.75% of 63 students chose the selfish option. The group of those who were willing to share the sum of money equally was more than twice as big (68.25 %) although they too had the option to keep a larger share for themselves without having to fear an 'ultimatum' set by the other player. Obviously, fear of punishment was not the main motive for cooperation and sharing, as in this case the 'dictator' who had to allocate the money could only be governed by an altruistic motive to share any sum of the money. Social norms, the sense of commitment and the potential sense of guilt the 'dictators' would feel unless sharing the money made them behave altruistically. The finding confirmed the results obtained in similar experiments (Konow, 2010).

Under the third version of the first question which tested the attitude to those who violated moral norms and acted selfishly and whether people tended to punish their behaviour even if the punishing party would bear a loss, the majority of respondents

(74.63%) chose the first option. That option gave a smaller sum of money to the decision-maker but awarded the behaviour which he/she considered to be moral. This proves that the attitude to selfish people is negative and they tend to be punished despite the fact that the punishing player will bear a loss.

As for question 2 regarding the investment, the average response of all 254 students was 4.1 coins, which exceeded the values obtained in similar surveys (Johnson & Mislin, 2011) and demonstrated a high level of trust and willingness to cooperate even when economic benefits were uncertain.

As for the last three questions referring to the moral assessment of market phenomena, the survey found out that market mechanisms were accepted, though they were neglected when they were found to be in conflict with the sense of fairness. Survey questions and results are presented in Table 1.

Table 1
Prices and fairness

Situation	Acceptable	Unfair
A store has been sold out of a popular doll for months. A week before Christmas a single doll is discovered in a storeroom. The managers of the store know that many customers would like to buy the doll and decide to sell it by auction to the customer who offers to pay the most.	73.28%	26.72%
A store has been sold out of a popular doll for months. A week before Christmas a single doll is discovered in a storeroom. The managers of the store know that many customers would like to buy the doll and decide to sell it by auction to the customer who offers to pay the most. The additional profit made will go on charity.	90.32%	9.68%
A grocery store sells a stack of bottled water for BGN 15. After an accident which has cut the water supply in the neighbourhood, the store raises the price to BGN 20.	22.35%	77.65%

In situation one, nearly three quarters of all respondents found it acceptable to provide scarce goods to those who are willing to pay the most for them. In the original survey conducted by Kahneman, Knetsch and Thaler (Kahneman, Knetsch, & Thaler, 1986), the question was slightly different: ‘the store has been sold out of the doll for a month’ and not ‘for months’ as it was the case in our survey. This minor difference produced fully mirrored answers. In the original survey, 74% of the 101 respondents viewed the managers’ decision as unfair. Such a discrepancy proves the feasibility of a fundamental assumption in the behavioural theory of choice – namely, that evaluations depend on the reference point. In the original survey, the price that was charged a month ago was adopted as a reference point, compared to which the price charged before Christmas seemed unfair. In our survey, the longer period of time during which the store had been sold out of the doll prevented our students from adopting the initial price as a reference point and they therefore found it acceptable that different consumers would pay different prices for the same product, mutatis mutandis. This discrepancy proves evaluations and decisions are significantly affected by the framework and the context within which a choice is made.

The percentage of respondents who considered that raising the price of the doll was acceptable grew even higher to exceed 90 % when in the second question the earnings from the higher prices were said to be allocated to charity. In the original survey conducted by Kahneman, Knetsch and Thaler, the charity element lowered the percentage of negative attitudes to the auction sale of the doll, too. Naturally, due to the different reference point, the reduction in the number of people with a negative attitude was bigger – from 74% to 21%. Both in the original survey and in the one we conducted, the answers to the second question differed substantially from the answers to the first question, although in both scenarios the ultimate market result for the respondents themselves would be the same. This clearly indicates that in terms of moral feelings results are less significant than intentions and the means they will be achieved by.

Reasons for actions are given priority over results in the answers to the last question, too. The vast majority of respondents (77.65%) viewed as unfair an increase in prices which was due to selfish motives and the desire to benefit at the expense of someone's misfortune. The fact that in this case scarce supply and increased demand might have led to the higher price charged on water and that a higher price is more efficient in its primary role to distribute scarce resources was not considered morally acceptable. Despite the economic logic, the moral feelings of the respondents rejected as unacceptable the attempt to benefit from people in difficulty. The same attitude was demonstrated by the respondents in the original survey conducted by Kahneman, Knetsch and Thaler. Respondents had to evaluate the decision of a hardware store to raise the prices of snow shovels after a snow storm. 82% of the 102 respondents found that decision unfair.

Analysis of findings

Although the findings of our survey have limited representativeness, they confirm the findings of similar surveys and prove the impact which the sense of commitment has on individual choices.

First, people make decisions driven by their sense of commitment. That sense is demonstrated by observing the social norms of sharing and fairness, which are evidence that people seek to avoid inequality (inequality aversion) (Fehr & Schmidt, 1999). Due to inequality aversion, many people feel badly both when they have less and when they have more than the others. Despite the fact that inequality aversion is individual and that the loss of utility from inequality would be greater if a person had less than it would be if he had more, in most cases the focus of activities will be on reaching equality. Due to the 'inequality aversion' factor, people will tend to share their own resources with the others, as the 'Ultimatum' and 'Dictator' games proved. Furthermore, as the appearance and the growth of 'shared' economy have proved, people tend to support taxation and social policies for the redistribution of income in favour of those who have less; they tend to take part in charity initiatives; to work harder and protest when, ceteris paribus, others have more than they do; to support equal-treatment measures which combat discrimination and nepotism; to express their discontent when other violate laws or evade taxes.

Second, as evident from the answers of respondents to the third version of the first question, individuals tend to sacrifice their economic interests to establish the order which corresponds to their moral feelings both when they are the agents who make the distribution decisions and in cases when they need to punish or reward the distribution decisions of others. They tend to care for and help one another and are ready to trust strangers and people they will never meet again without receiving any benefits in exchange, including benefits related to establishing a good reputation.

The willingness to make a sacrifice, combined with the inequality aversion, indicates that individuals do not merely prefer to give or take. Both selfishness and altruism are conditional: most frequently, people find it fair to gain from those who are in a favourable situation and have more and tend to help only people who are in a less advantageous or worse situation compared to them. In some cases, inequality aversion will reduce the welfare of individuals, since people tend to miss a certain benefit to prevent someone else from obtaining a bigger benefit than them. People also tend to sacrifice their resources when others do so, yet should anyone try to 'ride free', the rest in the group would stop cooperating (Fischbacher, Gächter, & Fehr, 2001). Such conditional cooperation explains the high correlation established in some surveys between making one's own tax payments and the belief that other people pay their taxes as well. In other words, people pay their taxes when they believe that everyone else does so (Frey & Torgler, 2007).

Third, moral feelings are reciprocal. People act positively to those who have apositive attitude to them, even when this deprives them of potential benefits or makes them incur expenses. And vice versa, people respond negatively when they are confronted with a type of behaviour they consider to be immoral and are ready to give up on resources to punish this type of behaviour (Diekmann, 2004) (Fehr & Gächter, 2002).

Social norms of reciprocity oblige people accepting gestures of respect, good will and friendliness to reward them with favours, presents, etc. in future. As our survey confirmed, the driver of such reciprocity is the sense of commitment. Other surveys have established that the degree of reciprocity is higher when the initial favour is more meaningful and personal, unexpected and tailored to the particular occasion (Cialdini, 2016, pp. 254-255).

Reciprocity has a number of positive dimensions. It is a unique attribute of human culture – our predecessors learned to share their food and skills through the noble ties of commitment. The awareness that one can give without a loss and without a previous agreement inspires confidence. Furthermore, the network of mutual indebtedness is the basis on which the complex and coordinated systems of mutual assistance, protection and trade have evolved (Cialdini, 2006).

Reciprocity, however, also has a negative, manipulative power. Examples include the offer to have the windows of your car washed at crossroads; free samples; discount coupons; free meals or drinks to customers before they make their order or pay their bill; mutual political favours; unfairly high grades which students get at exams, etc. Reciprocity may result in unwanted debts and deprive individuals of their free choice who they should feel indebted to or in what way. Reciprocity may even lead to immense corruption pressure. Pharmaceutical companies often make presents to doctors and send them on holidays, disguised as seminars. Some publishers provide free copies (the so-called evaluation copies) of textbooks to the authors. The political assignments made in the board of directors of some state enterprises often have nothing to do with the professional skills of the appointee. Such practices are sometimes well-disguised bribery in which certain favours will be expected in future.

Special attention should be paid to negative reciprocal reactions, i.e. punishing another person when an individual believes that the person has committed an immoral act. Such examples of altruistic punishment are evidence of the 'dark side' of moral feelings because of which actions based on the altruistic sense of commitment create potential conditions for inefficiency and conflicts (Fehr & Gächter, 2002). Thus, when people receive few administrative and social services in exchange for the taxes they pay, when they are forced to bribe civil servants to be provided with their services, or when they are treated disrespectfully by the officers of the tax administration, they will view taxes as unfair and will try to avoid paying them. Altruistic punishments through tax evasion, making little effort or low commitment to work, giving and taking bribes involve actions which cannot be approached as moral, yet we need to account for the fact that in this case moral feelings are governed by intentions and not by consequences, therefore the individuals who commit such actions consider themselves to be moral. They either rationalize their activities with intentions which seem appropriate or use framing which conceals or distort the perception of their moral aspects (Anand, Ashforth, & Joshi, 2004).

Fourth, market logics can hardly win over moral feelings, especially if there is an appropriate reference point for making assessments. In most cases, the reference points are the levels of benefits for consumers and producers which have been established through recent or similar deals, expectations about the future, social comparisons with others, etc. Both consumers and producers assume it is their right to receive what they have received so far, what they expect or receive from others. Negative changes in terms of the chosen reference point are approached as losses and the non-reciprocal distribution of losses – as morally unacceptable. A change in the reference point, as it was the case in our version of the first question about the price of the doll in table 1, changes the framework and the context within a choice must be made and may reverse preferences: the low price 'a month ago' in the original survey is a reference point which creates a sense of loss and unfairness of the price at the auction, while the low price 'months ago', as it was the case in our survey, is not approached as a reference point. Going back in time enables the interviewees to adopt a reference point which has been adapted to market realities and to approach the price as a fair one.

The dependence of moral feelings on the framework of the choice also results in higher consumer sensitivity to their direct monetary costs and losses compared to their sensitivity to alternative costs and missed benefits. Consumers tend to find the actions of retailers more unfair when they suffer direct losses than when they are deprived of potential benefits. Consumers also consider more unfair the actions which generate earnings to companies than those which may be defined as preventing losses or having no effect on their earnings (as it was the case in the question 2 in Table 1).

Thus, for example, when the price of oil goes up, an increase in the prices of fuels at gas stations is viewed as morally acceptable. Although in this case consumers will bear losses, most people will not perceive a moral problem, provided that the loss does not turn into earnings for fuel retailers. Despite the fact that higher prices of fuel deplete consumers' surplus, if retailers do not raise their prices, their earnings will go down, which, too, would be unfair. Retailers have the moral right to protect the level of their earnings, therefore an increase in prices which is due to higher costs or taxes is considered to be fair.

A similar approach may be applied not only to losses, but also to earnings. A gain is not considered to be immoral as long as it is not at the expense of other parties involved in a transaction. For example, if the costs of manufacturers go down, their earnings will increase and this will be approached by most people as fair since it does not incur losses to another party. In such cases, manufacturers have no moral duty to share the gains from lower costs with other members of society (for example by reducing the prices of their products or increasing their payments to suppliers, to the budget, or the remuneration of their employees) and may convert them into profit. Naturally, if they choose to share the benefits from the lower costs, they will get moral credit and social rewards.

An increase in earnings will be considered immoral, however, if it is the result produced by some market force or the pursuit of gains at the expense of other people. This was the case with the price of mineral water going up after the accident. The scenario will be similar if owners of gas stations decide to take advantage of increased demand during the summer holidays and raise their prices; if restaurant managers charge higher prices on Saturday nights; if the owner of a corner-shop raises prices because the competition has to stop work temporarily, or if a landlord raises the rent because he/she has learned that the tenant has got a pay rise, has started working closer to the housing or is not likely to move out. Such actions increase the earnings of retailers from the perspective of established reference points but reduce the surpluses of the other parties involved in the transactions. One of the parties profits at the expense of the other party, which contradicts the principle of inequality aversion and is therefore not considered morally acceptable.

To the market mechanism, price is the result of the interaction between supply and demand, regardless of the fact whether it has increased due to declining supply or growing demand. This is not insignificant to the moral feelings of people, though. When changes affect negatively the reference levels of benefits which have already been established, they are approached as unfair, and people will be driven by their moral feelings to make sacrifice to punish those who have caused these changes.

There are several options available. One of them is to boycott the retailers who have hurt customers' feelings and to buy from retailers who act 'fairly'. The situation with Veselin Mareshki's gas stations is a good example. Their low prices attract even customers who must travel long distances and for whom it would be cheap to buy petrol from gas stations which charge higher prices but are situated closer. Despite the fact that this incurs losses to them, many consumers thus reward Mareshki and punish the other fuel retailers. In this case, the boycott proved to be successful and soon other gas stations started to lower their prices, too. Another option is to attract the attention of mass media. They are often alarmed and seek to disclose retailers who charge 'unfairly' high prices – from taxi-drivers who charge three times the usual rate and the illegal sale of tickets for various sports and cultural events on the black market to the waste of public funds on excessively expensive projects. A third possible response is to initiate legislative changes. Examples include the control on the prices of natural gas, electricity and water, notary fees and services provided by taxi-drivers. In foreign countries, the law is part of combating phenomena like tickets resale profiteering, increasing the remuneration of executive managers in periods of rising unemployment and economic downturn, increase in the price of essential goods after natural disasters, industrial accidents, etc.

Under the threat of similar actions, the business needs to take care of its image and to act in compliance with established moral standards. The economic consequences are significant (Kahneman, Knetsch, & Thaler, 1986):

1. Markets will not react when there is a simultaneous increase in supply and production costs. Despite the deficit during natural disasters and industrial accidents, prices do not go up. In some cases, contrary to economic logics, retailers even reduce their prices so as to maintain their public image of being 'socially responsible' and 'fair'.[1]

2. Similar to prices, salaries will also remain comparatively insensitive when there is excess supply, i.e. they will not go down and clear the market in periods of involuntary unemployment and economic downturn. Only when a company is suffering losses or is facing a bankruptcy is it allowed to defend itself by cutting its costs on labour and reducing the number of its employees. It is also more likely that real wages will be more flexible during a period of inflation. Due to incorrect monetary perceptions, wages are reduced by inflation even when their nominal value does not decline, yet this does not raise charges in unfairness.

3. When a single supplier provides a family of goods for which there is differential demand without corresponding variation of input costs, shortages of the most valued items will occur. Examples include key sports matches and concerts of popular singers. Although there is a greater demand for them, it will be considered unfair to sell the tickets at prices close to the equilibrium price. Prices are kept below the equilibrium price and this creates a deficit for tickets. A similar response is observed in labour relationships. When the applicants for a specific position have different skills and

[1]A classic example was the observed in the summer of 1920, when there was significant deficit of gas in California. The only supplier in the region, Standard Oil of California (SOCal), not only did not raise prices but also kept them significantly lower than the prices along the east coast of the USA.

characteristics which are valued differently by the business entities, differences in remuneration will not suffice to solve the issue with the deficit of the most valued applicants.

4. Prices will be more responsive to costs increases than to cost decreases and price decreases will often take the form of discounts, rather than reductions in the regular price. Furthermore, prices will be more responsive to variations in costs than to variations in demand. If the prices of fuels go up, municipalities will probably raise kindergarten fees. They will hardly do so when there is enormous demand and shortage of kindergarten places, though. Similarly, if the taxes charged on textbooks go up, publishers will raise their selling prices, yet they will not do so when exam sessions are approaching and there is an increase in demand for textbooks and academic literature.

Conclusion

The findings and the analysis of our research support the thesis that the concept of Homo Economicus needs to be further elaborated from the point of view of behavioural economy to answer various questions of a descriptive, diagnostic, predictive or prospective nature (how and why do people act in reality; what are the consequences of human action; how to guide human action so as to reach the ideal norms).

From a wider and more realistic perspective like this one, the pursuit of personal interest is more restricted, similar to rationality and self-control. There is a change in the social dimensions of personal preferences and in the influence of the sense of commitment which is approached as ‘respect to general moral rules’. People tend to comply with those rules, therefore they stick to general behavioural perceptions and rules and cooperate to accomplish common objective. Even in situations when they ‘ride free’ or cheat, most of them would not do so. People tend to care about the well-being of others and act responsibly and responsively whether or not they will benefit from that. People treat others fairly and want to be treated fairly both in their personal and economic relations. They are guided by reciprocity: when others behave in compliance with established moral standards, they treat them fairly and care about them. When, however, people meet immoral behaviour or intentions, they are ready to sacrifice resources and make the effort to punish such behaviour, even when this in not in their best interest. Compared to the view of traditional economic models of Homo Economicus and the prevalent perception of the Neoclassicism, human beings are in reality better, more moral, and more attractive when the attitude towards them is in compliance with established moral standards and more immoral, evil and repulsive when the attitude they are given is in conflict with moral rules.

The constraints of our survey prevent us from claiming any representativeness beyond the specific community in which it was conducted. Its findings and conclusions, however, provide evidence of its potential to contribute to the solutions to important theoretical and practical issues and to be developed into greater detail and more depth through future surveys.

The attributes we analysed in our survey have important implications related to personal, economic and public choices. Their further research through the joint effort of economists, sociologists and psychologists would make possible the integration of behavioural sciences and thus gain better awareness of the overall picture of human behaviour.

***

The author is thankful to Prof. Anna Nedyalkova, Prof. Valery Stoyanov and Assoc. Prof. Eleonora Tankova from the Free Varna University Chernorizets Hrabar for their support and comments; to Prof. George Vredeveld and Prof. Richard MacDonald for the joint master class in 2016 where the findings of the survey were first presented; to all students who took part in the survey, and to the governing body of Nikola Vaptsarov Naval Academy who made it possible. We also extend our special gratitude to the two anonymous referees for contributing with their valuable viewpoints, criticism and recommendations.

References

Anand, V., Ashforth, B., & Joshi, M. (2004). Business as usual: The acceptance and perpetuation of corruption in organizations. *Academy of Management Executive*, 18(2): 39-53.

Berg, J., Dickhaut, J., & McCabe, K. (1995). Trust, reciprocity, and social-history. *Games and Economic Behaviour*, 10(1): 122-142.

Camerer, C. (1997). Progress in behavioural game theory. *The Journal of Economic Perspectives*, 11(4): 167-188.

Camerer, C. (2003). *Behavioural game theory: Experiments in strategic interaction.* Princeton University Press.

Camerer, C., & Thaler, R. (1995). Ultimatums, dictators and manners. *Journal of Economic Perspectives*, 9(2): 209-219.

Camerer, C., Loewenstein, G., & Rabin, M. (2004). *Advances in Behavioural Economics.* Princeton, NJ: Princeton University Press.

Cialdini, R. (2006). *The psychology of persuasion, Revised Edition.* Harper Business.

Cialdini, R. (2016). *Pre-suasion: Channeling attention for change.* Simon & Schuster.

Diekmann, A. (2004). The power of reciprocity. *Journal of Conflict Resolution*, 487-505.

Falk, A., Fehr, E., & Fischbacher, U. (2008). Testing theories of fairness – Intentions matter. *Games and Economic Behaviour*, 62(1): 287-303.

Fehr, E., & Gächter, S. (2002). Altruistic punishment in humans. *Nature*, 415: 137-140.

Fehr, E., & Schmidt, K. (1999). A theory of fairness, competition, and cooperation. *The Quarterly Journal of Economics*, 114(3): 817-868.

Fischbacher, U., Gächter, S., & Fehr, E. (2001). Are people conditionally cooperative? Evidence from a public goods experiment. *Economics Letters*, 71(3): 397-404.

Frey, B., & Torgler, B. (2007). Tax morale and conditional cooperation. *Journal of Comparative Economics*, 35(1): 136-159.

Güth, W., Schmittberger, R., & Schwarz, B. (1982). An experimental analysis of ultimatum bargaining. *Journal of Economic Behaviour and Organization*, 3: 367-88.

Henrich, J. (2000). Ultimatum game bargaining among the Machiguenga: Why culture matters in economic behaviour. *American Economic Review*, 90(4): 973-979.

Henrich, J., Heine, S., & Norenzayan, A. (2010). The weirdest people in the world? *Behavioural and Brain Sciences*, 33(2-3): 61-83.

Hirschman, A. (1982). Rival interpretations of market society: Civilizing, destructive, or feeble. *Journal of Economic Literature*, XX: 1463-1484.

Johnson, N., & Mislin, A. (2011). Trust games: A meta-analysis. *Journal of Economic Psychology*, 32: 865-889.

Kahneman, D., Knetsch, J., & Thaler, R. (1986). Fairness as a constraint on profit seeking: Entitlements in the market. *The American Economic Review*, 76(4): 728-741.

Konow, J. (2010). Mixed feelings: Theories of and evidence on giving. *Journal of Public Economics*, 94: 279-297.

McAuley, I. (2008). *You can see a lot by just looking: Understanding human judgement in financial decision-making.* Centre for Policy Development.

Mullainathan, S., & Thaler, R. (2001). *Behavioural Economics*. Accessed at https://www.soa.org/files/sections/pen-mullainathan-thaler.pdf

Naef, M., & Schupp, J. (2009). *Measuring trust: Experiments and surveys in contrast and combination.* IZA DP No. 4087.

Sen, A. (1977). Rational fools: A critique of the behavioural foundations of economic theory. *Philosophy & Public Affairs*, 6.

Smith, A. (1759). *The Theory of Moral Sentiments.* London: A. Millar. Accessed at http://www.econlib.org/library/Smith/smMS.html

Thaler, R. (27 May 2016 r.). *Behavioural economics: Past, present, and future*. Accessed at SSRN: http://ssrn.com/abstract=2790606

Tomasello, M. (2014). *A Natural History of Human Thinking.* Cambridge, MA: Harvard University Press.

D. A.Tsenov Academy of Economics – Svishtov
University of National and World Economy – Sofia
University of Economics – Varna
Sofia University ‘St. Kliment Ohridski’
New Bulgarian University – Sofia

ECONOMICS 21

Interuniversity journal
Year VII, Book 1, 2017

CONTENTS

ARTICLES

ECONOMICS 21
INTERUNIVERSITY JOURNAL

Submitted for publication on 29.05.2017, published on 08.06.2017, format 70x100/16, total print 80.

ISSN 1314-3123 (Print)
ISSN 2534-9457 (Online)

ISSN 2534-9457 (Online)
ISSN 1314-3123 (Print)

ECONOMICS 21

Year VII, Book 1, 2017

- Commitment as a constraint to the pursuit of self-interest
- A methodology for trend analysis of stock exchange activities, based on indicator signals and frequency volatility
- Instruments for encouraging public-private partnerships in transport infrastructure projects

INTERUNIVERSITY JOURNAL

TO THE READERS AND AUTHORS OF ECONOMICS 21

Economics 21 publishes **research studies, articles and methodological papers**.

1. Volume

Studies: min. - 26 pages; max. - 40 pages;
Articles: min. - 12 pages; max. - 25 pages;
Methodological papers - up to 40 pages.

2. Submission of materials

- On paper and electronically (on CD and/or by e-mail).

3. Technical characteristics

- Written in Word 2003 (at least);
- Page size - A4, 29-31 lines / 60-65 characters per line;
- Line spacing - Single;
- Font - Times New Roman 12 pt;
- Margins - Top - 2.54 cm; Bottom - 2.54 cm; Left - 3.17 cm; Right - 3.17 cm;
- Page numbers - bottom right;
- Footnotes - size 10 pt;
- Charts and graphs - Word 2003 or Power Point.

4. Layout

- Name of article, name of author, scientific degree, scientific title - font Times New Roman, 12 pt, capital letters Bold - justified;
- Employer and address of the place of employment; contact telephones and E-mail;
- Abstract in Bulgarian - up to 15 lines; keywords - from 3 to 5;
- **JEL** classification code for research papers in economics (http://ideas.repec.org/j/index.html);
- The main body of the paper;
- Tables, charts and graphs must be embedded in the text (allowing for language correction and translation);
- Formulae must be created with Equation Editor;
- References in alphabetical order – in Cyrillic and Latin script;
- Technical characteristics and layout:

Template: https://www.uni-svishtov.bg/samagazine/upload/Economics-21-Template_bg.doc

5. Citation guidelines

When citing sources authors should observe the requirements of **APA Style** at: http://www.apastyle.org/ or at http://owl.english.purdue.edu/owl/resource/560/01/ or at http://www.calstatela.edu/library/guides/3apa.pdf.

Each author bears responsibility for the ideas presented, the content and layout of his/her text.

6. Contacts

Editor-in-chief: tel.: (++359)631-66-338
Stylistic editor: tel.: (++359)631-66-335
E-mail: i.varbanov@uni-svishtov.bg, economics21@uni-svishtov.bg
Address: D. A. Tsenov Academy of Economics, 2 Em. Chakarov str., Svishtov, Bulgaria