Human Now versus Human over Time. When Instrumental Rationality and Utility Are Not Enough

Summary: The goal of this article is to show that instrumental rationality and utility that have been used in economics for many years does not work well. What is presented in the article is how significant the influence of utilitarianism has been on economics and why the economists get rid of humans’ goals and motivations. It is shown in the article that the human who decides in present is absolutely different from the human who decides over time. Many economists neglected this problem because they wanted to have an effective and simple model. Becker’s economic method is presented as a dead end to which economics has been brought to. It is impossible to connect different selves of one human being by using the utility measure. The works of Schelling and Mill are used to explain this impossibility. The conclusion of this article is that instrumental rationality and utility have affected economics significantly. But, this simplified view on human nature is no longer valid. Hence, economics needs to think not only about the means but also about the human goals. Economics needs to rebuff relativism and show people how to achieve well-being. If we want to help people with their self-governance, we will have to choose reason over emotions.

Key words: Instrumental rationality, Utilitarianism, Choice over time, Multiple selves, Well-being.

JEL: B00, B40, B50, D91.

“What a piece of work is a man! How noble in reason! How infinite in faculties!”

Hamlet

Neoclassical economics focuses on measures and not on ends which human beings put on themselves. Due to this narrow understanding of rationality, economics has a problem with duality of humans when they must choose between now and the future. This article shows the great influence utilitarianism has on economics and the strong connection between utilitarian thinking and instrumental rationality. This conglomerate caused economics to no longer be interested in motivations and goals of humans; the only area it is interested in is the choice. Moreover, what people choose is always rational because if it is not, then they would not choose it. In this article, the author shows the duality of humans in accordance with time. The author also demonstrates that people want something different when they choose now unlike with
the later choice. The author also argues that these differences are not solely any simple anomalies and that this inconsistency of choice is an integral part of human nature. Becker’s ideas have been used in this article as an example of pushing instrumental rationality and utilitarianism to extremes. He is presented as a warning for many economists to be careful while using the economic approach. This problem is illustrated by the example of drugs, but most notably, it shows when a person has a choice between the short-term temptations and the long-term benefits.

The second part of this article places an emphasis on Mill’s trials to reconcile human’s different selves. Trials where he used utilitarianism reasoning failed to explain the human duality. Therefore, Schelling’s thoughts have been used to show why this failure occurred. He mentioned about the human dualism and the fact that it is impossible to compare choices over time, if the utilitarian measures are only used. This is the reason why the notion of second-order desires (Harry G. Frankfurt 1971) has been introduced here. The author also attempts to underline the difference between human’s goals, values, and choices. These differences have been emphasized because economics as a science needs to study human’s motivations and goals, if economists want to know the people and predict their behaviors better.

Of course, over the last years neoclassical economics has tried to refer to the criticism toward *homo economicus*. We can observe the process of “reverse imperialism” where economics tries to use knowledge from psychology and sociology. However, these are only some adjustments to the main theory and not its rebuttal or a significant change. The author will show that if we are still using the economic approach, it will be impossible for economics to understand complex reality.

1. The Origins of the Problem

Economics is the social science that is derived mostly from utilitarianism. We can even say that Bentham was one of the fathers of the contemporary economics. Certainly, he is regarded as the founder of utilitarianism. Nowadays, this ethical system is very prominent, especially in the corridors of universities of economics.

In Bentham’s opinion, human always seeks to maximize utility, and this is because: “Nature has placed mankind under the governance of two sovereign masters, pain and pleasure” (Jeremy Bentham 1823). Moreover, Bentham underlines that pleasure and pain are not only our empirical “masters” but they also define how we should behave: “It is for them alone to point out what we ought to do, as well as to determine what we shall do” (Bentham 1823). This accentuation is crucial because very often utilitarianism is discerned solely as a system that describes human behavior. Bentham finds the maximization of utility as an end itself; therefore, he criticizes the Greek philosophers who believe that some pleasures depreciate human being. The English philosopher scoffs at their searching for the highest good (*summum bonum*) and claims that this is the “consummate nonsense”. In his opinion, searching for something better and different from pleasure does not have any sense, as it is impossible to be found. Plato, with his realm of ideas, is for Bentham “the master manufacturer of nonsense” (Amnon Goldworth 1983, pp. 134-147).

Bentham’s idea has achieved a noticeable place in economics today due to the marginal revolution in the early 1870s. Jevons, Menger, and Walras underline the
importance of utility (Ivan Moscati 2013). The notion of revolution is not an accident because the primary interest of economics shifted at that time from production of wealth to utility, which is gained from consumption. Utility in utilitarianism has two dimensions, namely, duration and intensity of pleasure (or pain). Although marginalists were interested in human motivations and in counting their satisfaction, since the 1930s, the mainstream economics has restricted their research field. Consequently, the understanding of utility as happiness started to be considered as something that is impossible to be measured objectively; therefore, it should be taken away from economics.

Economists stopped being interested in human motivations, and they assumed a priori that human is always rational and that he/she always maximizes his/her utility. Moreover, many economists started to understand rationality in a narrower sense than the father of economics Adam Smith. They established that the agent uses the instrumental rationality. In other words, every person makes use of knowledge and he/she uses logical deduction to use means effectively (Janina Godłów-Legiędź 2013).

The conglomeration of utility and rationality is evident in the works of Paul A. Samuelson (1938, 1948) who went away from the indifference curve to the revealed preference. According to him, human behaves rationally but rationality is treated instrumentally, because economics does not know and does not want to know which motivations every human being is driven by. Neoclassical economists are solely interested in the results but not in the causes of this behavior. This simplified model of a man is also used by macroeconomics. It was Milton Friedman (1953) who claims that human motivations do not matter in the economic analysis. What matters is predictive power. Due to this theory, along with ridding of the psychological baggage, the economists thought that they were going to make economics the most scientific among the social sciences. They believe that the goal of economics should be the focus on human choices, and that they are sufficient to predict the agent’s future behavior. Mainstream economics focuses on human choices, and it restricts the understanding of rationality because it considers Hume’s words that: “Reason is, and ought only to be the slave of the passions, and can never pretend to any other office than to serve and obey them” (David Hume 2003, p. 415) very seriously. It basically means that we cannot rationally choose our desires. Economists have eagerly accepted this idea believing that human preferences are given. The only rational thing for a human being is to satisfy these needs. Moreover, neoclassical economics focuses on the agent’s choices because we cannot detail our motivations. Therefore, economists have the “allergy” to human resolutions, and they do not give any credit to this kind of statement. Ultimately, it is your deeds, not your words that matter most.

Finally, to take a clearer description of the utilitarian economics, it must be stated that there is no distinction between better and worse pleasures. Bentham wrote: “Prejudice apart, the game of push-pin¹ is of equal value with the arts and sciences of music and poetry” (Bentham 1830, p. 206). In his opinion, both activities are equally good if they give the same amount of utility.

---

¹ The game for children that was popular in Bentham’s times.
Economics wants to be a positive science and does not want to value deeds; therefore, utilitarianism comes in handy. This way of thinking favors the hedonistic approach where we are driven by the short-term spurs, and we want to receive pleasures as soon as possible. Can we think of any other faster pleasure than buying consumer goods? The nature of economics encourages the adoption of utilitarian premises by marginalists who focus on the person’s choices of different material goods. We can hear the echo of these thoughts in Samuelson who writes that: “As a customer you will buy a good because you feel it gives you satisfaction or ‘utility’” (Samuelson 1980, p. 48).

We must be careful not to be taken by this oversimplified picture where economics is only concerned with people who consume a sausage or drink Coca-Cola. Not every purchase of the consumer’s goods is so easy to be made and people are more likely to follow their values. But, the most essential thing is that economics uses the concept of *homo economicus* not only to describe the action on the market but also to characterize the whole human nature.

Although there has been a lot of criticism toward the economic man for many years, this model is still in use. This situation is possible because *homo economicus* has made economics the most important discipline of the social sciences. However, both the concentration on the process of choice and the elimination of the other values caused that *homo economicus* has a big problem to describe the reality and to predict human behavior in the future. In the next chapter, it will be shown that human beings cannot maximize their own utility and the primary cause of this fact is decisions made in the future.

2. Man over Time

“There is no quality in human nature, which causes more fatal errors in our conduct, than which leads us to prefer whatever is present to the distant and remote.”

Hume (2003, Section VII)

It is true that neoclassical economists focus on human choices in a particular moment. However, they know that choices now and choices in the future differentiate from each other quite significantly. More than one hundred years ago, Jevons, one of the fathers of marginal revolution, wrote:

“To secure a maximum of benefit in life, all future events, all future pleasures or pains, should act upon us with the same force as if they were present, allowance being made for their uncertainty. The factor expressing the effect of remoteness should, in short, always be unity, so that time should have no influence. But no human mind is constituted in this perfect way: a future feeling is always less influential than a present one” (William S. Jevons 1911, pp. 72-73).
Economists handle the problem of different human choices being dependent on the time when the choice was made\(^2\). For a man/woman, now is more important than later, and this is why he/she discounts future utility. It was Samuelson (1937) who introduced the discounted utility model. Reference to the financial market is not presented by accident. In the neoclassical economics, every human being can assess and enumerate utility that he/she would receive in the future. In his short paper (seven pages long), Samuelson (1937) spends two of the last pages to indicate some possible problems with his model that he calls “serious limitations”. One of his concerns is, if people discount future at rates that vary over time then they may change their minds as time moves forward. Therefore, it bothered Samuelson (1937) that people might display time inconsistency. He was aware that such a behavior exists. For example, he writes about purchasing total life insurance as a compulsory savings measure. But, he does not develop these problems with inconsistency and he just moves on. Economists followed his suit, and his discounted utility model became a standard model of intertemporal choice. Franco Modigliani (1966) is the best example of implementing discounted utility model. He based his model on an individual’s total income, and his theory is called life cycle hypothesis. In this theory, people are rational, and they are able to make a plan when they are young regarding how to smoothen their consumption over their lifetime. Furthermore, this hypothesis not only assumes that people are able to make all calculations (with rational expectations) about how long they will live, how much they will make, and so on, but also possesses self-control, which is necessary if people want to apply the optimal plan.

It is not surprising that with time economics dealt with the increasing number of cases which show that human beings cannot discount future utility at all. Indeed, people try to discount future utility, but it does not work very well for them. Moreover, the complications with discounting utility are not only the ordinary anomalies but they also indicate a systematic problem which makes that the foundations of \textit{homo economicus} - long-term preference - cannot be fulfilled.

The problem with the evaluation of the future is called present bias or hyperbolic discounting. Concededly, in this theory, human can discount future utility, but when it comes to the moment of choice, he/she does not stick to his/her preferences. For example, when we give people choice between 7 hours of unpleasant activity on 1 April and 8 hours on 15 April and ask them on 1 February, almost everyone chooses 7 hours on 1 April. However, when it comes to 1 April, people having the same choice in the majority postpone this unpleasant activity on 15 April (Ted O’Donoghue and Rabin 1999). This time inconsistency is very important because it hits everyone and renders that we do not maximize our long-term preferences. We do not maximize them because we are “too much” focused at present. All along, we want some choice more than the other, but when selection arrives, then our preferences will change, and we will delay any decision that is unpleasant for us.

The other side of this problem is that humans should wait but they make a decision now because their choice is associated with the instant pleasure. O’Donoghue

\footnote{Loewenstein shows how psychological perspective of Senior, Jevons, and Bohm-Bawerek was brought to the formulation of discounted utility by Samuelson (George Loewenstein 1992, pp. 3-35). The process of removing psychology from economics is well-described by Luigino Bruni and Robert Sugden (2007).}
and Rabin (1999) called this problem “preproperate”, which they derived it from the Latin root “prat-pruperum” which means “to do before the proper time”. To illustrate this issue, the following example is used. People can choose $100 in 30 days or $105 in 31 days. The majority of them choose the second option. But, if we must choose between $100 today and $105 tomorrow almost everyone will pick the first option. The difference between the choices is not a problem for economics because discounted utility model assumes that future is less important than the present for people. Therefore, waiting one day after thirty days to get $5 is easier than waiting one day from today. However, as it turned out, people are time inconsistent. They opt for $105 in 31 days but when the 30th day passes and they have the choice between $100 now and $105 tomorrow, they will switch their preferences to $100 now. This behavior is inconsistent with the long-term preferences, and it means that we pay too much attention to the present time. The economists were not interested in the problem of time inconsistency to the 1980s with one praiseworthy exception of Robert H. Strotz (1955). However, it was George Ainslie (1975), a psychologist, who introduced the idea of hyperbolic discounting. Richard H. Thaler and Hersh M. Shefrin (1981) implemented this idea into economics. It gained currency with time and some economics created the models of dynamically inconsistent time preferences (David Laibson 1997; O’Donoghue and Rabin 1999, 2001). It will not be elaborated on how these models work because they face the same problems as the static models. Later, it will be shown that it is impossible to compare decisions over time exclusively by using utility measurements.

Fisher gives a vivid example of the combination of procrastination and “preproperate”. He writes:

“This is illustrated by the story of the farmer who would never mend his leaky roof. When it rained he could not stop the leak, and when it did not rain there was no leak to be stopped! Among such persons, the preference for present gratification is powerful because their anticipation of the future is weak” (Irving Fisher 1930, p. 81).

It is important to underline that present-bias touches every human being. Even more “sophisticated” people who know about the problem with procrastination cannot properly assess its influence on them (Strotz 1955). This is because the future choice will always be present in the future. This present bias makes human to be a personification of utilitarianism where person seeks for an instant pleasure and flees from any kind of botheration.

The other problem with discounting future utility is that human beings have the amazing ability to adapt to any changes. Phillip Brickman, Dan Coates, and Ronnie Janoff-Bulman (1978) interviewed people who have won the lottery over the last year (average winnings of $479,545) and the control group. Researchers have not found any difference in reported happiness between winners and non-winners. A more expressive example is that people who won big lotteries after few years felt happiness similar to the people who had met with an accident and had to use a wheelchair till the end of their lives (Brickman, Coates, and Janoff-Bulman 1978). This research shows how relative utility can be and how non-intuitive the output of this analysis is for many people. It is hard for a man/woman to access the future flow of happiness (Daniel T.
Gilbert 2007). Moreover, people very often do not have any idea about how much happiness the particular situation could give them. Thus, they think they know but they are mistaken.

This phenomenon is called “focus illusion” and it was introduced by Daniel Kahneman and David A. Schkade (1998). It can be summarized by the maxim: “Nothing in life matters quite as much as you think it does while you are thinking about it” (Kahneman and Schkade 1998). It means that we have the tendency to exaggerate the importance of any aspect of our life when we focus our attention on it. Kahneman and Schkade (1998) performed the experiment where a lot of students from Midwest and from Southern California rated their overall life satisfaction as well as various aspects of life, for either themselves or someone similar to them in one of these two regions. It can be concluded that this self-reported life satisfaction was the same in these two regions, but the participants who rated another group expected Californians to be more satisfied than Midwesterners. It means that people intuitively (wrongly) assume that life in California must be better because they focus their attention on one factor (weather). It is wrong because people forget that weather is not the only thing that influences our life satisfaction. What are also important are job, family, social connections, and many other factors.

Another problem with decisions over time is when we make a decision in a hot state, for example, buying automobiles when the dealer has them excited, getting married in the heat of passion, or committing suicide in the depth of depression (Loewenstein, O’Donoghue, and Matthew Rabin 2000). This hot state results from the present-bias. Furthermore, we cannot understand that the state of arousal will pass quickly and our decisions will be seen as something irrational.

The aforementioned examples are only some of the many other problems connected with the maximization of utility in the future. However, they are very symptomatic, and they show that there is a gap between human now and human in the future. It can be easily observed that there are two absolutely different selves of human that want something different. Jon Elster (1986) presents more conceptions of multiple self. However, the majority of them have not been formalized.

Economics as a science focuses on the process of choice, and it only describes the “present human” who is at the mercy of his/her desires and weaknesses. Moreover, economics answers the critics of *homo economicus* by rejecting the possibility of the existence of two selves (self now and self over time). Economics defends rationality and the maximization of *homo economicus* and makes that economics is now in the cul-de-sac.

3. The Defense of *homo economicus* - On the Road to Tautology

“Never let the truth get in the way of a good story.”

Mark Twain

Obviously, neoclassical economists have known about the human problem with the maximization of utility in the long-run. However, they did not want to discard the model of *homo economicus* because it was so effective; they only adjusted it because
of the rising criticism. Neoclassical economists have admitted that human is not hyper-rational and does not always maximize his/her own utility, but they do not change the core of *homo economicus* at all. A human being still maximizes his/her own utility and is rational.

Neoclassical economists being focused on the agent in the process of choice needed to deal with the problem concerning a big gap between a man choosing now and a man who will choose in the future. To rebut the criticism from the other social sciences (especially from psychology), economists have used an instrumental understanding of rationality. Alright - they said - human in the long-run do not pick the best option but it does not mean that he is not rational and that he does not seek to maximize his utility. The problems with the maximization of utility exist because according to the neoclassical economists, costs of acquisition and processing of information can be too high. Thus, as Knight had noticed much earlier: “It is evident that the rational thing to do is to be irrational, where deliberation and estimation cost more than they are worth” (Frank H. Knight 1921, p. 67, footnote 14). Heuristics - the simple and efficient rules which people often use to form the judgments and to make decisions - exist because people do not have enough time to digest every available information. If we need to think about our every move, we will not be able to live because every day we must make thousands of different decisions.

It is of great importance to mention that we can derive two implications from the knowledge, that people are weak and that they are not always absolutely rational. First, human according to Simon was seeking satisfaction not maximization: “Whereas economic man maximizes - selects the best alternative from among all those available to him, his cousin, administrative man, satisfices - looks for a course of action that is satisfactory or ‘good enough’” (Herbert A. Simon 1947, p. XXIX). The bounded rationality exists because human has cognitive constraints which was the second of Simon’s conclusions. Nevertheless, Simon’s idea was only an attempt to adjust *homo economicus* to reality and not to rebut it. Simon did not polemicize with the assumption that people are driven by their instrumental rationality and they always want to maximize their own utility. However, due to the complexity of the external world, they cannot always maximize their own utility. Neoclassical economics could easily deal with Simon’s criticism. The World is too complex, and we cannot process every piece of information; therefore, rationality in an economic sense is different from common sense rationality. This “clash” between economic rationality (process) and common sense rationality (outputs) is presented by John Conlisk (1996, p. 690):

“When I walked into a post while watching a bird, my family called it a dumb move. Among economists, however, I could have claimed that, given the spatial distribution of lamp posts, the expected utility of bird watching exceeded the expected disutility of a collision. *Ex ante*, the post probably was not there, and it is entirely rational to collide with an *ex post* post. This example illustrates the confounding of rationality issues with information issues. Am I dumb to walk into a post or merely a rational victim of imperfect information?”

*Homo economicus* has been changing because of its incongruity to reality but economists made only changes in auxiliary hypotheses of the model, whereas the “hard core” of *homo economicus* remains the same (Imre Lakatos 1980). All advantages and
disadvantages of economic model are incarnated in the works of Becker, who has driven the economic analysis to the dead end. Becker’s ideas will be discussed to show that *homo economicus* is worn out.

### 3.1 Becker

“An economist by training thinks of himself as the guardian of rationality, the ascriber of rationality to others, and the prescriber of rationality to the social word.”

(Kenneth J. Arrow 1974, p. 16)

Becker’s view of rationality has given economics the opportunity to study many fields that had yet been covered by the other social sciences. He did not hide that; thanks to his method, it is possible to explain about the overall human behavior and that every field in social sciences should use this approach. The term economic imperialism consummately shows this lack of humility. Becker pushed the underpinnings of neoclassical economics to the extreme. The main premises of Becker’s economic approach are maximizing behavior, market equilibrium, and stable preferences (Garry Becker 1978, p. 5). He did not hide how much he derived from utilitarianism and from Bentham. For Nobel prize-winner, it was also important that human beings always seek to maximize their utility. Moreover, he used “relativity” of utility and made that this term started to be the “black box” which could contain everything. Therefore, it does not matter if a man/woman is an altruist or an egoist because no matter what he/she will always maximize his/her utility (Amartya Sen 1977, 1999).

By broadened conception of utility, Becker answered two different kinds of critics of the *homo economicus*. First, he embraced all the altruistic behaviors into the process of maximization. Even if a man/woman has regard for others, he/she cares for them because in the end it gives him/her utility. In philosophy, this kind of reasoning is called psychological egoism. Second, the extended conception of utility causes that we cannot establish any objective values which human beings want to pursue. It is impossible to compare utility between people and also between any choices made by the particular person.

Consequently, Becker has come to tautology, and his theory is vastly impractical because it is impossible to explain why some behaviors are different from others and how to choose the better one. Hence, if a woman hugs her child, we can say that she does it because she gets utility from hugging. However, if she does not hug her child, we can say that this is because she derives utility from non-hugging (Tomas Sedlacek 2009, p. 225).

Becker does not seem as somebody who was bothered about tautology because he thought that his model was good enough to predict the future human behavior. In addition, there is no sense to be bothered by human motivation and as he co-wrote with Stigler “no significant behavior has been illuminated by assumptions of differences in tastes” (Becker and George Stigler 1977). Motivations do not matter because we cannot test them. Moreover, they caused “endless degrees of freedom” (Becker and Stigler 1977).
The antipathy to understand human motives is clearly visible when we look at the title of one of the most important Becker’s articles “De Gustibus Non Est Disputandum” (Latin. There is No Accounting for Tastes). In this article Becker underlines the meaning of stable preferences: “...(O)ne does not argue over tastes for the same reason one does not argue over the Rocky Mountains - both are there, will be there the next year, too, and are the same to all men” (Becker and Stigler 1977). Becker was aware that he simplified reality by assuming that the stable preferences exist. However, this simplification was necessary because he did not want to be tangled in the infeasible analysis of human motivation. Therefore, in Becker’s model, people behave in accordance with instrumental rationality, and they choose only means not the ends. This is why the only important thing for Becker is a choice which takes place at the very moment. For him, this choice is the foundation of his whole theory because this gives us all the necessary information. The other implication of the stable preferences is that external environment influences our actions and Becker emphasizes this statement by saying that: “The application of the economic approach so conceived are as extensive as the scope of economics in the definition … that emphasizes scarce means and competing ends” (Becker 1978, p. 8). Therefore, he started to be the successor of Lionel Robbins and his broad understanding of economics, demonstrated in the famous sentence: “Economics is the science which studies human behavior as a relationship between ends and scarce means which have alternative uses” (Lionel Robbins 1932, p. 16). Becker also underlines the meaning of time: “Different constraints are decisive for different situations, but the most fundamental constraint is limited time” (Becker 1993). It was the scarcity of time that gave Becker the opportunity to explain seemingly irrational human actions in a short period of time. The most spectacular attempt in using this way of thinking is visible on the example of different addiction which he eagerly analyzed.

3.2 The Problem with Rational Addiction

In A Theory of Rational Addiction, Becker and Murphy claim that:

“Yet, as the title of our paper indicates, we claim that addictions, even strong ones, are usually rational in the sense of involving forward-looking maximization with stable preferences. Our claim is even stronger: a rational framework permits new insights into addictive behavior” (Becker and Kevin M. Murphy 1988, p. 675).

Becker pushes the economic approach with respect to the topic of drugs to its extreme. Due to this subject area, we can see what Becker means by rationality and how neoclassical economics views the world. Drugs are the best example of the conflict between those human beings who want the long-term goals and those human beings who choose here and now and who have the restricted cognitive abilities.

First, it is necessary to admit that Becker is generally right when he shows that taking drugs is not contradictory to rationality. He condignly underlines that your deeds, not your words that matter most. People can declare (or even believe) that they want to live healthily and long, but these goals are not absolute because the alternative costs always appear in our life. Therefore, if you choose something, it means that you will turn away something else. This lack of absolute values cause that pleasure from
smoking in a short-term could be greater than possible unpleasantness from cancer in the future.

This relativity interrelated with the absence of interest in human motivation caused that the only important thing is a choice which must be rational because it was not be chosen otherwise. Becker claims that humans somehow enumerate their long-term goals (e.g. health) in comparison with the short-term pleasures (e.g. smoking). We do not know how they do it (we are not interested in motivations), but we simply assume that they can do this. Milton Friedman gives a famous example of an expert billiard player to illustrate the as if argument (1953, p. 21).

Becker and Murphy use instrumental rationality to resolve the problem with different human actions which depend on time when they are made. “This paper relies on a weak concept of rationality that does not rule out strong discounts of future events. The consumers in our model become more and more myopic as time preference for the present (a) gets larger” (Becker and Murphy 1988, p. 683). According to Becker, present-bias is not a problem because there is no objective measure of utility. If we ask Becker about what is better - being healthy or not, he would probably answer that it depends on the utility that we gain from each condition. Moreover, Becker and Stigler use utility to explain the addictions:

“Tastes are frequently said to change as a result of consuming certain ‘addictive’ goods. For example, smoking of cigarettes, drinking alcohol, injection of heroin, or close contact with some persons over an appreciable period of time, often increases the desire (creates a craving) for these goods or persons, and thereby cause their consumption to grow over time. In utility language, their marginal utility is said to rise over time because tastes shift in their favor” (Becker and Stigler 1977, pp. 77-78).

However, this understanding of rationality causes that it is easy to come to some absurd conclusions. Imagine the situation where, owing to the shipwreck a man lies on a small boat in the middle of the ocean, and he thinks about drinking water from the sea. He knows that he should not drink this water and it can only make him feel bad. Despite this knowledge, he succumbs to the temptation and drinks it. He gets sick and dies afterwards. Is it reasonable to say that this person behaves rationally? Is impulse, second utility enough to call some behavior rational? Let us move to the next example which was presented by Schelling:

“Usually scratching is thought to be dysfunctional. Whether it is hives, chicken pox, mosquito bites, or poison ivy, doctors worry about infection; and most of us, especially parents, have observed that any momentary frenzied relief from scratching is followed almost instantly by enhanced itching. Many of us learn to resist the temptation to scratch. But not in our sleep” (Thomas C. Schelling 1996, p. 64).

Is scratching during the dream a rational behavior?

The aforementioned examples cause the question, if there should not be any difference between the reason and the biological needs, between consciousness with the long-term goals and simple pleasures? Obviously, the prior examples are extreme, but the questions resulted from them, concerns every human behavior. These questions
call up the ghosts of Bentham’s critics when people ask if it is possible to compute everything by using utility or if there are some differences between both values and pleasures. Becker like Bentham answers that it is impossible to distinguish between human motivations.

This cut-off from human motivations and the narrow understanding of rationality causes that economics to dump the tools which were needed to answer the dilemma between human now and human over the time. It is observable that human beings have two selves that have different mechanisms and goals. The economic approach is uncomplicated and effective. However, it tells us only about doer while planner is ignored, using the terminology from Thaler and Shefrin (1981).

The next part of this article will present about the second self of human beings.

4. John S. Mill - Two Selves of Human Nature

“Rationality is not only about maximizing; it is also about reflecting on what to maximize.”

(Cyrlin Hédoin 2013)

The problem of dualism of the human nature was very important to John S. Mill (1806-1873). He tried to answer criticism of utilitarianism which in his times was called as the “pig philosophy”. Mill was a person who differed higher pleasures from the lower ones with regard to quality, not using only quantity or intensity. He admits that “… some kinds of pleasure are more desirable and more valuable than others” (John S. Mill 1879). However, very often we choose “lower” pleasures. Sometimes we prefer lying on the couch and watching comedy to reading Shakespeare. We crave for undemanding intellectual activities, even if we do not set great store on them. At first sight, it looks contradictory to Mill’s theory when people want higher pleasures which are connected with intellect not with the trivial thrills. However, Mill answers this critic and the difference between human choosing between the short-term and the long-term perspective. It is true that we prefer lying on the couch and watching a comedy to reading Shakespeare because this less demanding activity can give us more pleasure. However, people value Shakespeare more and it is not only because they are taught to have a respect to the classic. As far as Mill is concerned, the “true” choice is in the long-term perspective when our preferences are changed and people look for these things that are more valuable than the simple pleasures. Despite wanting to lie on the couch and watch a comedy, if somebody asks us what we want to do in our whole life, the majority will choose to read Shakespeare or choose to do other meaningful activities Mill explains that we choose the “lower” pleasures even if we want the higher ones because “… occasionally, under the influence of temptation, postpone them to the lower” (Mill 1879). Thus, it means that we know the difference between comedy and Shakespeare, but sometimes we succumb to our weaknesses. We find Hamlet a great play not because we like it more than the other pleasures but because it challenges us and makes us a better person.

Thus, Mill unknowingly departed from utilitarianism because he assumed that there exist more “worthy” deeds. However, Mill’s credit for human’s higher needs created the problem. Economists do not like the human declarations because very often
they do not coincide with the real choices. For example, Americans ranked highest, “talking with children” and seventeenth, “watching television”, while it seems clear that in practice most Americans spend much more time watching TV than they ever do talking to their children (Thomas F. Juster 1985). When people are asked which programs they want to watch on TV, they point out performances, theater, or opera but when it comes to choice, they watch soap operas.

However, these results do not mean that people are hypocrites and that their declarations are only the way to look better in the eyes of others. The majority of them do want to have “worthy” life not the life that is only based on simple pleasures. A lot of them are dissatisfied that they cannot achieve their long-term goals. So, they succumb to various temptations instead. Due to economics, we know that human beings always must confront their values with environment and choose between them. However, this does not mean that choice explains everything. It is important to look deeper into our motivations and accept the fact that it is possible to have values and goals, but they cannot be so easily simplified to the utilitarian classifications.

Robert Nozick (1974, pp. 42-45) presented a thought experiment which is known as The Experience Machine where the person’s brain is connected to some machine. Consequently, he/she sleeps and has a virtual and an extremely pleasant experience. Moreover, the subject would think that these pleasant experiences are the reality. Many people do not want this kind of life even if it is delightful. This rejection of a pleasant life is an argument against hedonism because it shows that people value other things more than pleasure. The animosity toward using only utilitarian measurement justifies the acknowledgment of a possibility that there are values other than only pleasantness or unpleasantness.

4.1 Man in a Wider Perspective

“To be able to choose the line of greatest advantage instead of yielding in the direction of least resistance.”

George Bernard Shaw

If we want to understand the incomparable distinction between human values and pleasures, we must look at a man or a woman not only when he or she makes a choice, but most notably before and after it. In order to do it, let us focus our attention on Read’s idea where he shows how human decisions vary over a period of time when they are made. He divided a person into pre-agent, acting-agent, and post-agent (Daniel Read 2006). Every of these “selves” differ from the other, and it is impossible to collate them as it was done by Becker.

The first part of a human being is pre-agent. It is a planner who is very similar to the economic man. He/she is rational and always tries to choose the best option by calculating which option fulfills his/her long-term preferences. Pre-agent is focused on the future and treats present as a temporary condition which is not so important. Furthermore, he/she has some cognitive constraints, but this does not change the fact that pre-agent still tries to maximize his/her long-term preferences. Broadly speaking, we can identify pre-agent with reason.
Acting-agent is a different part of a human being. We should associate him/her with Freud’s conception of “id”. At the moment, we are like small children who want quick pleasures and by no means want pain. We are focused on present, and we do not pay any attention to the future. In general, we can identify acting-agent with emotions.

The last conception is post-agent who evaluates his/her own choice, and this is something to what Becker did not pay enough attention. The most interesting case is when post-agent feels regret about the decisions that have been made by him/her. This situation is called regret theory (David Bell 1982; Graham Loomes and Robert Sugden 1982). In this article, we are not interested in the situation when we get the new information and we recognize that our previous decision was not optimal. We are interested in the situation when the goals of pre-agent clashes with the goals of active-agent. Most frequently, human beings feel regret about some decision made on the spur of the moment, when they succumb to the temptation and forget about their long-distance goals. This conflict is best seen in the case of drugs when we have a clash between goals like health and short-term pleasures. In Becker and Murphy’s opinion, this problem does not exist. They write that:

“The claims of some heavy drinkers and smokers that they want to but cannot end their addictions seem to us no different from the claims of single persons that they want to but are unable to marry or from the claims of disorganized persons that they want to become better organized. What these claims mean is that a person will make certain changes—for example, marry or stop smoking—when he finds a way to raise long-term benefits sufficiently above the short-term costs of adjustment” (Becker and Murphy 1988, p. 693).

Becker is right to claim that seemingly irrational behavior as taking drugs can maximize utility. The question is if this understanding of rationality makes any sense. In the economic approach, ex-alcoholic who does not want to drink because he/she knows where it can take him/her is rational when he/she comes back to drinking. This human does not want to drink, but after going on a binge, he feels awful about his behavior. Is it possible to decide if the temporary need to relapse to alcohol is more important than the goals and human motivations? Becker assumes that human beings can integrate these conflicting motivations and bring them to a common denominator of utility.

4.2 Schelling’s Dilemma

Very often different psychologists depict Odysseus as an illustration of human’s conflict between the long-term goals and the short-term drives. He was supposed to float over the rocky islands that were inhabited by sirens. Their singing ensnares many sailors and consequently, they hit the rocks. Ulysses knew about sirens’ appeal and he decided to protect himself. In order to do it, he ordered some deckhands to tie him to the mast and to put wax in their ears. Because of these precautionary measures, they could not hear the sirens’ singing. The ship floated safely, and then Odysseus boasted that he heard the beautiful sirens’ singing.

This behavior of mythical hero is known as “precommitment strategy”. People use this strategy of their own volition to remove options from which they choose
because they are afraid that they succumb to the temptations when the choice comes. For Schelling, this human ability was something really disturbing, in the context of neoclassical rationality, and he decided to inspect it (Schelling 1978, 1980, 1984a, b, 1985, 1986). The choices between the long-term goals and the short-term pleasures are not simple anomalies, but they are an inherent quality of human beings. There are a lot of different situations, when we want to curb our freedom. Schelling presents many examples of this behavior:

“Please do not give me a cigarette when I ask for it, or dessert, or a second drink. Do not give me my car keys. Do not lend me money. Do not lend me a gun. Besides denial there are interventions. Do not let me go back to sleep. Interrupt me if I get in an argument. Push me out of the plane when it’s my turn to parachute. Don’t let me go home drunk unless you can remove my children to a safe place. Blow the fuse if you catch me watching television. Make me get up and do my back exercises every morning” (Schelling 1984b, p. 1).

The problem for Schelling is not that these situations exist. There is rather a question if the pre-agent should be more important than the active-agent, as it seemed to be at first sight. Schelling gives the example of Captain Ahab from Moby Dick, who lost his leg because of a bad wound:

“The blacksmith enters with a hot iron to cauterize the stump. Ahab begs not to be burned. The crewmen hold him down as he spews out the apple in a scream, and steam rises where the iron is tormenting his leg. The movie resumes with Ahab out of pain and apparently glad to be alive” (Schelling 1984b, p. 9).

At first, Schelling treats this example as a simple situation. We get a lot of utility in exchange for our limited freedom - life in exchange for short but a much intensified moment of pain. Later, however, he notes that even if Ahab asked smith to cauterize his wound and even if felt grateful for the operation which was conducted on him, it would not mean that this was the best decision which gave him the greatest utility. Schelling writes: “If you burn me so that I may live I’ll thank you, afterward, but that is because I’ll be feeling no pain and not anticipating any when I thank you” (Schelling 1984b, p. 9). He concludes by saying:

“How do we know whether an hour of extreme pain is more than life is worth? Alternatively, how do we know whether an hour of extreme pain is more than death is worth? The conclusion that I reach is that I do not know, not for you and not for me” (Schelling 1984b, p. 9).

Schelling comes to the conclusion that it is impossible to assess which choice is better if we only take utility into an account. He claims that every moment is different, and it is impossible to compare different periods of time. Thus, Schelling detected what Becker has also found. It is impossible to compare choices with respect to utility because utility is absolutely relative. These two Nobel Prize winners drew different conclusions from their knowledge. As far as Becker is concerned, he thought that if we cannot assess whether some actions give more utility than the other, then we

---

3 Kahneman (2011) underlines an indispensable difference between experiencing self and remembering self.
must assume that a man/woman is rational and always does things that maximize his/her utility. If we did not assume that, then the whole conception of utilitarianism and utility will not have any sense.

Schelling comes to another conclusion, probably because he was not so fierce utilitarianist like Becker and did not need to defend or to adjust a theory to reality. Therefore, he could be closer to reality, and he was not blinded by logic like Becker. Schelling thought that it is impossible to compare utility over time because:

“Each self is a set of values; and though the selves share most of those values, on the particular issues on which they differ fundamentally there doesn’t seem to be any way to compare their utility increments and to determine which behavior maximizes their collective utility” (Schelling 1984b, p. 8).

We cannot use utility measurements because human beings have two different selves, and they have diverse preferences. Thus, economics should handle these selves separately. Schelling did not want to decide which of these two selves are more important because we are not able to compare their utilities. However, this relativity is not a problem for Schelling because:

“Sometimes, but not always, it is easy to know which is Dr. Jekyll and which is Mr. Hyde. The person who drinks and becomes vicious, or a bore, and is morose about it for days afterwards; the person who continually resolves to demand that increase in pay and never musters the courage; and the person who walks into a casino for a little sociable gambling, loses more than he intended, commits more to recover it, and emerges traumatized after blowing his bankroll, all seem to present an unequal pair, a ‘straight’ ego and a wayward alter” (Schelling 1984a, p. 61).

However, Schelling was aware of the fact that he did not have a tool that would help him to decide which self is more important. “Anyone who is happily addicted to nicotine, benzedrine, valium, chocolate, heroin, or horse racing, and anyone unhappily addicted who would not elect the pains and deprivations of withdrawal, are not my subject” (Schelling 1984b, p. 4). However, he tried to make a small distinction that helped him to justify a choice:

“I am not concerned with whether cigarettes or rich desserts are bad for you, only with the fact that there are people who wish so badly to avoid them that, if they could, they would put those commodities beyond their own reach” (Schelling 1984b, pp. 4-5).

Even though he did not want to choose, the last citation shows that in the end, he chose reason and the long-term man over a man focused at this moment. His small emphasis on people who succumb to temptations but who do not want this to happen made Schelling to have the same problem like Mill. Even if Schelling claims that it is impossible to compare utility in time, for him the real “I” is not the person who drinks but the self that regret this addiction. Thereby, Schelling a priori must assume that health, self-esteem, and so on have some value. We must now establish what these values mean, if we do not want to always credit human choices (consequences) as a reflection of our preferences.
4.3 Reason as a Human’s Master but Not Like the Sun King

Schelling’s attempt to show inconsistency between what we do and what we “really” want is nowadays called second-order desire and was invented by philosopher Frankfurt:

“Besides wanting and choosing and being moved to do this or that, men may also want to have (or not to have) certain desires and motives. We are capable of wanting to be different, in their preferences and purposes, from what they are” (Frankfurt 1971, p. 7).

The easiest way to explain this conception is by the example of drugs. Having the choice to take or not to take drugs, the person who is addicted will choose a drug, and this is his/her first-preference. However, if a person had a choice, he/she would rather rank his/her preferences as no drug > drug than drug > no drug. This ability is called second-order desires. We should not perceive the second-order desires as the instability of preferences. This is rather our preference ranking. We see attempts to broaden our preferences by meta-rankings (Sen 1977).

Second-order theory does not polemicize with Hume’s thought that we cannot determine our preferences by reason (reason is the slave of passion). In the theory of second-order desires, people have defined preferences. However, due to reason, people can change their preferences, and categories of freedom are different than simple utility. This state only concerns pre-agent and post-agent because active-agent is focused on a particular action, and it does not have second-order desires. This condition, when we are tossed by our desires, is called “wanton” by Frankfurt. This state is right for both animals and children. In the second-order desires, the consequences are not sufficient. This is the reason why it is also important to get to know the deeper human motivations and goals.

In this article, the second-order desires are understood as a kind of attempt to give authority to reason. It is taking a stance in a long-lived battle between reason and emotions as two adversarial selves in people. I do not want to give the absolute power to reason as it was done by Kant. For whom preferences have not had any moral significance and for who human should behave in accordance with categorical imperative (identifies with reason). I appreciate a tremendous contribution of economics to show that human choices are relative. There is no need to create rules that do not stick to reality and to order human to be entirely subservient to reason. Human beings are also driven by emotions and pleasure principle; therefore, we cannot neglect this part of our nature. I give priority to reason only to provide humans with a possibility to assess their preferences and to judge their individual emotions.

4.4 People Have Values

It is also important to underline that preferences go beyond utilitarian measurement. Arrow defines them as “the values of individuals rather than to their tastes” (Arrow

---

4 However, this perception now seems to be only a stylistic device because more and more data show that emotions and reason are strictly connected and their cooperation is essential in the process of making rational decisions (Antonio Damasio 2005).
Values are the core of human preferences and they form our goals and preferences especially in the long-run. Hechter describes them as “relatively general and durable internal criteria for evaluation” (Michael Hechter 1992, p. 215).

Neoclassical economics wanted to save its utility maximization theory by putting values into the black box of utility. However, this way of thinking led to tautology and made economics insensitive to the differences in human motivations. Values are different from utility because they are ex-ante reason why we do something. In this instance, we do not use consequential thinking, and we do not calculate our utility. It is impossible to solve chicken or egg dilemma. It means that we cannot prove that humans are solely motivated by values and that they are not influenced by utility. However, there is no need to prove that values are something that exist ex-ante. I only want to show that values vary strongly from utility, and we cannot compare them. This difference is clearly visible if we analyze people’s attitudes toward concepts of values and utility. We can use neoclassicists’ line of argument that we give back wallet which we had found on the street because it is “economical” to give it back. Cherishing our self-respect, being a “good man” can be more important than money in this economic way of thinking because it gives us more utility. However, this reasoning looks only as an attempt to defend the homo economicus model. People understand the difference between self-interest (maximization of utility) and values in an intuitive way. In this example, we improve our situation when we leave money for ourselves. However, behaving according to the values (giving money back) seems to make our situation worse. This way of thinking is because people do not want to be “good” because this gives them some profit (utility). Moreover, they want to be “good” because being “good” has some intrinsic value independent of utility. Of course, this is only his/her declaration, but as I have shown earlier that declarations matter, and it is important to know them if we want to understand human behavior. In order to explain the difference between self-interest and values, it is useful to use the concepts of sympathy and commitment that were proposed by Sen:

“The former corresponds to the case in which the concern for others directly affects one’s own welfare. If the knowledge of torture of others makes you sick, it is a case of sympathy; if it does not make you feel personally worse off, but you think it is wrong and you are ready to do something to stop it, it is a case of commitment” (Sen 1977, p. 326).

Economists have an enormous problem to understand this difference. It is clearly visible when altruistic and self-interest motivations are put into the black box of utility. It means that economists do not have tools to notice the difference between these two distinctive motivations (both can maximize utility in a neoclassical theory). It causes that economists look at human behavior in a particular way. For almost 150 years (marginal revolution in 1870) economists have assumed that human beings are predominantly driven by self-interest. This assumption together with methodological individualism is one of the cornerstones of modern economics. However, it has not always been like that. Adam Smith, the father of contemporary economics, perceived people in a complex way. The majority of economists only refer to “An Inquiry into the Nature and Causes of the Wealth of Nations” (Adam Smith 1776) and they forget about “The Theory of Moral Sentiments” (Smith 1759) that had been written 16 years
before the "economic bible". In this book, Adam Smith wrote about the "altruistic side" of human beings. He wrote about an impartial spectator, social norms, and sympathy. Smith considered himself as a moral philosopher but because of different reasons, his moral philosophy has been forgotten. One of these reasons is that Smith was used by many economists for their own purposes, and this has led to a situation where nowadays, the Scottish thinker is associated with self-interest and invisible hand (Aleksander Ostapiuk 2017).

It is essential in which way Adam Smith is treated by mainstream economists because it tells us a lot about contemporary economics. It assumes that people are self-interested; economics does not deal with people’s ends (value-free economics) and that people always maximize their utility (which can mean everything). Amitai Etzioni (1990) wrote an extensive book where he criticized the simplification of these assumptions. The purpose of this subchapter is less extensive. A few examples will be presented, and they should convince the readers that it is impossible not to distinguish between human motivations.

To start with, we need to understand that neoclassical economics perceived self-interest very broadly. This understanding of self-interest has been caused by the criticism of *homo economicus*. A lot of opponents of *homo economicus* ask why people donate their organs to those who they do not even know, why we give tips in a roadside restaurant, or why we give presents. Neoclassical economics had to expand the notion of self-interest to its extremes to answer the aforementioned questions. One anecdote about Hobbes can help us to understand how broadly self-interest is perceived by mainstream economics.

Apparently, Hobbes was walking in London with a clergyman and suddenly they spotted a beggar. Hobbes gave alms to the beggar and this astonished the clergyman. He said: "You helped this poor man, so, your theory about an egoistic man has fallen down". Hobbes responded: "No" and he added that: "It proves my point that I am an egoist because looking at this poor man makes me feel unhappy and when I gave him money I felt better". In philosophy this approach is called psychological egoism, and it assumes that people always behave in accordance with their self-interest and even if they help and call it altruism it is only a disguise for their self-interest.

Neoclassical economics has used this reasoning for many years. We can easily find an analogy with utility maximization. In psychological egoism, every behavior can be explained by an egoistic motivation. We just need to look for it deeper. The economic approach assumes that people always maximize their utility (we can perceive it *ad libitum*) and *ex post* we can consider every behavior as the result of utility maximization. Which implications does it have? For example, neoclassical economics cannot differentiate between the soldier who jumps on a grenade to save his comrades and the soldier who pushes another soldier on a grenade to save himself. This relativistic approach (value-free) together with the assumption of human being as a self-interest entity causes that economics looks at reality in a particular way.

Now we can come back to the questions connected with donating organs to people that we do not know, giving tips on restaurant, or giving presents. The answer is simple: they do it because it gives them utility. Furthermore, people choose something because it gives them the most utility. According to the neoclassical
economics, if somebody donates their kidney to the stranger, it is only because it gives him utility. Becker understood that we have different motivations (love, envy, brotherhood). However, his approach does not notice this difference. People just maximize their own utility. So, it means that if I donate a kidney to some stranger, I will do it because it will give me utility (pleasure from being a good person).

This broad perception of self-interest posed a lot of questions. It was Jean-Jacques Rousseau who presented some arguments against psychological egoism and his argumentation can be used against the economic approach. If people can take their own interest and the interest of others into consideration (even if in the end they will behave in accordance with their self-interest), it means that people must be somehow connected with another people at least to the extent when the interest of others is depicted as an alternative to their own self-interest (Alasdair MacIntyre 1996, p. 186). The problem with neoclassical economics is that it solely focuses on the results of people’s actions. In the end, the feelings of love, friendship, and empathy give people pleasure (utility). However, the question arises if they are just the motivations for our actions or the results of them. Do people want happiness for their children because it gives happiness or if this happiness is the result of their love toward children? Do people give presents because giving presents make them happy or is it the result of the bonds with the other people? We do not need to answer these questions because as it was noticed by Rousseau, it is enough to incorporate others into our happiness to make the conception of egoism too broad (Ostapiuk 2017).

This lack of interest in human motivations causes some problems that were not considered by Becker. He gives the example of a family where the wife’s behavior is transformed into the altruistic one due to self-interest (Becker 1974). In this example, the husband likes to read books in his bed before he sleeps. His wife does not like this because it disturbs her sleeping. However, the wife does not forbid him to read because she knows that a happy husband (in the higher level of utility) will compensate her “sacrifice” with interest. Her behavior is the same as the wife who really cares about her husband, but their motivations are different. What is most important here is that this husband prefers to be loved than not to be loved. He wishes that his wife permits him to read because it gives utility to him and not to her. It means that choice alone is not enough and that motivations do matter for people.

Sen (1999, p. 75) is the most recognizable authority who shows that economics cannot focus only on the act of choice. The “background” is important as well. He gives the example of a man who is hungry. However, in the first case he is hungry because he does not have the food, whereas in the second case, he is hungry because of religious reasons (fast). Neoclassical economics cannot see the difference between these two behaviors because it is not interested in human motivations. It is only interested in choice alone.

5. Conclusion

Neoclassical economics does not want to deal with human declarations, values, and motivations; therefore, it assumes that people are always rational, and they always maximize their utility. In addition, it does not want to choose between two different selves. This deceptive “no choice” between selves causes that economics, in fact, has
an interest in the “short-term human” who is guided by pleasure-pain principle. Neoclassical economics does not want to know anything about human motivations; therefore, economists have more problems to predict human behaviors. However, the economic approach still exists because it can post factum answer every criticism of economic model. Neoclassical economists know very well about the tautological implications of their own method, but this method gives economics the first place over the other social sciences. Hence, they do not want to abandon this effective model.

The assumption that human beings can choose the best option for themselves is nowadays treated as an absolute certainty in economic and social life. This absolute freedom given to human and the lack of rules on how to live results in people are more prone to short-term desires. That is why we have more obese people even though the majority of them do not want to be corpulent. There are billions of people who spend many hours watching TV every day, even if later they feel unhappy about it (Bruno S. Frey 2010, pp. 93-107). This value-free economics caused that people are not happier than they were in the past, despite tremendous economic growth. Scitovsky points out that economics should not only focus about GDP growth but it should also focus about how human can be happier (Tibor Scitovsky 1976). If this is its proper goal, economics sometimes cannot afford the luxury not to decide between human now and human over time.

Economics should espouse for reason. It should go toward Sen’s capability approach which means the ability to achieve the kind of lives we have reason to value (Sen 1999, p. 18). Dismal science can be changed because no other science has so much knowledge about human rationality as it has. Furthermore, economics has a big insight into human irrationality due to various criticisms from psychology. Thus, economics can use this knowledge to help people in their self-governance. It can also help to have a better life. Life that particular person wants to have.
References


