THE REPRESENTATIVENESS OF *HOMO OECONOMICUS* AND ITS RATIONALITY

Paula-Elena DIACON*

Abstract: *The homo oeconomicus model is an essential concept of the neoclassical analysis. It defines the agent capable of rational choices in pursuing the maximization of his own utility functions. Over time, the notion remained at the basis of many debates, related mainly to its relevance. However, the concept remained, until now, a fundamental component of mainstream analysis. This article aims to present a brief overview of the arguments that support the use of this model, but also its limitations and inconsistencies. Our main goal is to analyze if homo oeconomicus can be or not considered an ideal representation of the economic agent. Further, the analysis emphasize on the attribute of rationality, which is one of the most disputed feature in the literature.*

Keywords: homo oeconomicus; mainstream economics; economic behaviour; rationality
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INTRODUCTION

The neoclassical *homo oeconomicus* is assumed to have both descriptive and predictive power. Its construction required the selection and simplification of the human characteristics and their embedding in concrete and consistent assumptions. This allowed the mathematical operationalization of the economic behaviour on the basis of the laws of logic. In this article we want to understand the model in terms of the benefits it offers as well as the criticisms against it. In addition, we intend to analyze the notion of rationality, which together with self interest, are the two basic human characteristics considered in the neoclassical economic vision.

Although accepted as the main tool of mainstream analysis, *homo oeconomicus* raises a main question about its representativeness. This article aims to briefly examine the extent in which its use is appropriate. The goal of any science is to know the reality exactly as it is. Imaginary and fantastic creations are welcomed in art, but they have no place in the economic science. Researchers need to move away from fictional models or utopian constructs that could never be found in practice. In this regard, von Hayek's ([1988]1998, p. 76) remark is more than eloquent: "The curious task of economics is to demonstrate to men how little they really know about what they imagine they can design".

* Ph.D Candidate at the Doctoral School of Economics and Business Administration within Alexandru Ioan Cuza University of Iaşi, România; e-mail: diaconpaula@gmail.com.

IS *HOMO OECONOMICUS* AN IDEAL MODEL?

According to some opinions, ***homo oeconomicus*** **is an ideal model**. In this respect, Milton Friedman ([1958]2008, p. 153-158) considered that in most situations both companies and individuals rationally seek to maximize their profits or utility acting *as if* they had all the necessary information to achieve this aim. Thus, they act *as if*, on the basis of the available knowledge, they calculate the costs and the benefits for all the alternative courses of action and, finally, choose the one that offers the greatest profit or utility. The author argues that this is a natural tendency, although in general it is not acknowledged by the agents, that don't effectively solve complex systems of equations as some economists do. Regarding the relevance of the neoclassical *homo oeconomicus* model, Friedman argues that the success of a theory is given by its predictive power. This is the element which must reflect the reality, and not the assumptions. Moreover, the predictive power of a theory is contrasting to the realism of its assumption. An assumption (and a theory) is truly important and meaningful to the extent that it can explain as much as possible through fewer elements. This process requires descriptive abstract representations. Thus, the more accurate is a theory, the more unrealistic are the hypothesis on which it is build. However, the neoclassical economists postulated that the economic agents are perfectly rational and narrowly self-interested in any market circumstances. This characterization has led many scholars to claim that the neoclassical model represents the ideal man – an economic agent that acts almost mechanically in pursuit of maximizing its own utility and has the cognitive abilities to succeed in this attempt. *Homo oeconomicus* is an abstract model which respects the hypothesis's construction postulated by Friedman. The challenge is if this representation of the economic agent has the power to make accurate predictions. The answer to this question is perhaps best exemplified by the recent developments of the global economy, when the economic crisis in 2007 took by surprise both scholars business man.

However, von Mises ([1949]1998, pp. 60-63, 646-647) argued that ***homo oeconomicus*** **is not even an ideal pattern** of the economic man. Outlining the picture of the perfect economic man would require the consideration of several aspects of the various human goals and desires and not only some of them. Such a representation should incorporate complex human features. The ideal, which represents perfection itself, means, in ultimate instance, the power to be complete. Therefore, an ideal model would require to considerate all the relevant elements, not to reduce them to a few hypothetical variables. It would demand a perfect understanding of all human characteristics and of all reasons and goals underlying an action. How far we are from this complete understanding, when the human brain is still surrounded by many mysteries and some notions that at a first look seem so simple (such as the concept of consciousness and rationality[*]) cannot be yet completely explained! At least until today, no philosophy and no theory could be valid at an absolute level. Von Mises argued that the economic theory should have as a major objective the analysis of how market prices are formed in real transitions and not how they would take place if people would be different from what they really are. Economic analysis should not remain in the shadow of the "phantom" of *homo oeconomicus*. From this point of view, many economists criticize the model, describing it as illusory, because such a person is not found in everyday life. This representation omitted some important human features (such as emotions, attitudes and values) that represent strong motivations for actions. No individual is animated on the market only by purely economic motives – by the desire to get in any circumstances and at any cost the highest monetary gain possible. Since it analyzes a fictitious being, this model is often considered unrealistic. Economics studies (or should study) the actions of real people which actually occur on the market, with all their imperfect characteristics and attributes.

RATIONALITY AS A FUNDAMENTAL FEATURE OF *HOMO OECONOMICUS*

The *homo oeconomicus*' main and most disputed feature is its perfect rationality. The individual is endowed by nature with reason. Here, is necessary to make a **clarification between reason and rationality**. The reason is an internal feature specific to the human being. The complex structure, the invisible force and the fact that it is particular to each individual are just some of its characteristic elements that caused many and varied interpretations since ancient times. Aristotle said, for example, that "the characteristic activity of a human being is an activity of the soul in accordance with reason or at least not entirely lacking it" (Aristotel, 2004, p. 12). In general, reason is associated with (logical and formal) thinking and cognition. It is seen as the psychological instance that precedes and determines the action. All human experiences, sensations and perceptions are always passed through the mind filter and transformed in coherent and understandable elements. Reason is brought in economics through its function of rationality, respectively the individuals' trait of being rational. The neoclassic economists claim that the economic action is not only rational (in terms of logically thought), but perfectly rational (in the sense of utility maximizing).

[*] Rationality is a highly debated concept in all the social sciences because it underlies human knowledge. It has no universally accepted definition or interpretation. The issue is a basic scientific interrogation, many philosophers, economists, psychologists, anthropologists, etc. trying to clarify its sense. The theme is complex and involves many adjacent elements, such as the distinctions between rational – irrational, reason – feelings and passions, reason – will, reason – intellect, etc.

Human **thinking, however, is neither omniscient nor perfect**. In the human psyche, reason does not "work" alone, but the thinking is aided by emotions. Furthermore, many cognitive elements (such as memory and attention) have certain limitations. One of the main concerns in cognitive psychology, for example, is the study of the manner in which the individual attempts and success to solve problems. Studies in this direction have shown that, if this process is complex, individuals will often resort to certain cognitive shortcuts, known as ***heuristics***. Heuristics are quick and simple mental commands (or rules of thumb) that individuals often use in order to form judgments, before acting. They increase the possibility that a task will be successfully accomplished, especially because it shortens the time required for deliberation. However, the task fulfilment does not imply that the solution will be accurate. On the contrary, experts consider that the use of heuristics leads in the most cases to incorrect solutions. In complex situations which require a short time allotted for the decision, the person usually tends to consider only certain elements of the problems (those known from previous experience, for example) and ignoring others (the new ones that are more difficult to manage). Tversky and Kahneman (1974) have shown that the best known heuristics that usually lead to erroneous solutions are: representativeness (the tendency to judge a problem based on the situation to which it most resembles), availability (the tendency to assess a situation based on how easily the information comes to mind), and anchoring and adjustment (the tendency to estimate starting from a benchmark value around which people adjust their answers).

Some specialists, such as Zafirovski (2008), argue that in time the concept of economic rationality migrated from the complex vision of socio-economic pluralism to a reductionist one. From this perspective, the traditional conceptualization lost ground in behalf of the utilitarian definition. Rationality became a more limited and well-defined concept associated to utility maximization. In this sense, Amartya Sen (2004, pp. 4-19; 206-207) argues that in the **mainstream economic theory the notion of rationality** is not used with a unique sense, but it **has three different meanings**, respectively: internal consistency of action, self-interest maximization and expected utility maximization in general. The author claimed that the rational choice theory is not sufficient, both when uncertainty is present or not. Although the restricted vision promoted by the neoclassical economists was designed to simplify the modelling of the economic behaviour, it had a radical effect dissociating the individual from the moral side of its life, from ethics and from values. The demand of abstraction can be simply defined, in the Friedman's tradition, as to say "much with little". It involves the consideration of two requirements that are often antithetical and raise a problem of opposition between simplicity and relevance: the need for tractability (the demand to capture the behaviour in a canonical form that is enough accessible to enable relevant analyzes) and the need for veracity (the necessity that the model is not in contradiction with the true elements it represents). In other words, the construction of a theory raises an inherent conflict between a need for formalism and a need for realism. This is best captured in the model of *homo oeconomicus* and its assumed perfect rationality. However, Sen proposed a different interpretation of rationality, a more general one, in which it represents the ability to analyze under a justified examination, under the “reasoned scrutiny”, the choices of an individual in terms of its actions, goals, values and priorities.

In economics, von Mises ([1949]1998, pp. 18-19) claimed that the term **“rational action” is a pleonastic construct**. By reporting to ends, human action is necessarily and always a result of judgment. Economics studies only conscious actions intentionally directed toward a specific goal. From this perspective, ***related to the purpose of an action***, the individual will always act rationally in order to replace a situation which he finds unsatisfactory to a more satisfactory one. Man thinks this action: he always forms a mental image of the desired goals and the ways to reach them. Human life itself is always under the auspices of rationality. The individual always choose consciously and with his cognitive faculties the actions that he wants to accomplish and the resources he needs to do this. Human judgment, however, admits mistake. Man does not have the ability to forecast the future. Moreover, his present knowledge is limited, not absolute. Rationality, in general sense, is not synonymous with maximization or optimization. It does not count the efficiency to achieve a certain purpose or the resources’ adequacy to it. Rationality offers instead justification to the decision maker. Considering the environmental limitations and making use of their mental facilities, individuals expect their actions to have the desired results. However, the fact that his actions will not have the expected outcome does not make the approach less rational.

People have different aspirations. Each individual has a unique set of values, which is the result of a complex matrix of economic, psychological, cultural and social factors. The preferences of an individual for the material aspects of life, determines actions as rational as the ideal goals of moral, religious or philosophical convictions. Although the physiological needs are basic motivators of human action, as their fulfilment represent a prerequisite for the preservation of life, the fact that an individual can give up its complete satisfaction to meet other ideals, does not make the action less rational. Thus, ***related to the motivations of an action***, we can say that, in general, the arguments which lie behind it cannot limit its rational attribute. No person can contest what would make another one more content. Economics, therefore, only studies the rational actions. Moreover, the way in which this concern is achieved lies under the auspices of cognitive knowledge. Any scientific manifestation is a rational one. Human action cannot take place outside the reason. The cognitive faculties of the mind are the structures that allow the human being to understand the world and his own nature.

What neoclassical economists understand through rational action departs from the strict sense of the concept. In this view, the agent will always follow to maximize its own utility, knowing as many (if not all) relevant information as possible. Regarding this, Stiglitz argued, for example, that through rationality neoclassic economists refer rather than otherwise to the consistency of individual preferences over time. The author claimed that "rationality to an economist does not mean that individuals necessarily act in ways that are more broadly consistent with what makes them happy" (Stiglitz, 2010, p. 109). Utility maximization is, in last instance, synonymous with the maximization of pleasure or happiness. Emotions, are, however, neglected (or considered an exogenous variable) by the mainstream analysis. Rational behaviour is considered to be the one that determines the use of intelligence (which is not unbounded) to find, in the specific circumstances (including the limited resources), the best alternative solution of a problem. In this vision, the neoclassic economic man seems an ideal genius, endowed with unbounded cognitive powers, which can collect and process (thought complex mathematical calculations) a large amount of data in a short time.

CONCLUSIONS

In the neoclassical view, the premises, on which *homo oeconomicus* is built, outline the attributes of the perfect economic agent. However, some critics claim that this image of the economic agent is not an ideal one, since its perfection would need to take into consideration all the real and significant human characteristics, and not only some hypothetical attributes. No research and no theoretical model have provided, until now, a perfect and complete explanation of reality. However, in the neoclassical view, the problems arise when the analyses, which are targeting the market and the real behaviour of the individual, disregard the errors. The errors occur in overlapping the abstract model to reality, on the one hand, and between forecasting the future and its true course, on the other hand.

The individual does not have the capabilities of an absolute and omniscient mind. His mind cannot grasp the full and perfect meaning of the exterior events and phenomena, and not even of his own actions and physical activity. To what extent, in these circumstances, can *homo oeconomicus* offer a reliable source of knowledge of the acting individual? He represents the normative and prescriptive image of how a so called ideational human being would behave on the market. But it is a utopia and it does not capture the real individual.

The model can help economics as far as it wants to know the parameters of an optimal behaviour. The economic analysis that relates only to this representation is not, however, real and it only provides a partial picture of it. Evolution and progress are characteristics of human nature, in general, and of academic endeavour, in particular.

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