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INSTITUTIONS IN THE CONTEXT OF THE CONCEPTS OF THE ECONOMIC INDIVIDUAL

Summary: The article discusses the concepts of the economic individual existing in standard economics, behavioural economics, and institutional economics from the point of view of the role played by institutions and how they are explained. The analysis indicates that including the institutional context in the model of the economic individual implicates the abandonment of the assumption that man has an ability to think probabilistically and an acceptance that economics has a limited capability to make predictions about the course of economic phenomena.

Key words: institutions, rationality, standard economics, behavioural economics, institutional economics.

1. Introduction

The connection between institutions – understood as formal rules, social norms, and mechanisms for enforcing them – and the conceptualization of the economic individual can be analysed on several planes.

Firstly, the conceptualization of the economic individual can be used to justify the scope of market regulation by the state. If it is granted that individuals can act not in their own best interest, then it can be held that the state should enforce the consumption of socially desirable goods and constrain the consumption of socially undesirable goods [Stiglitz 2004, pp. 103-104]. Similar arguments are provided by some psychological concepts, such as the claim that people are characterized by cognitive dissonance and that, in order to reduce it, they avoid situations and information that could increase the dissonance [Festinger 1957]. Conversely, the assumption that economic individuals act hyper-rationally and the corollary that "markets and institutions are subject to healthy self-regulation" provide a premise for calls to limit state intervention in the economy [Ariely 2009/2011, p. 30].

Secondly, depending on the model of the economic individual, different roles are ascribed to institutions in choices made by individuals. In some concepts, institutions are variables in the utility function; in others, they represent constraints on choices.

Thirdly, the concept of the economic individual gives rise to diverse possibilities of explaining the emergence and changes of institutions as well as other economic

phenomena. Such diversity can be seen, for example, in new and old institutional economics. Whereas new institutional economics, which embraces a model of a utility maximizing individual, fails when it comes to explaining "soft" institutions, i.e., social norms, old institutional economics explains social norms by adopting a concept of a rule follower.

The aim of this article is to present the concepts of the economic individual existing in standard economics, behavioural economics, and institutional economics from the point of view of the role played by institutions and how they are explained.

2. Concept of the economic individual in standard economics[1]

Two approaches to modelling the economic individual can be distinguished:

– the first one adopting the rationality postulate as one of the axioms forming the hard core of the research method;
– the second one proposing a hypothesis regarding the nature of the economic individual (their aims, preferences, predispositions), which can be tested and, in consequence, accepted or rejected.

The former approach, i.e., the rationality postulate, is characteristic of standard economics. As an axiom, not requiring a proof, the postulate was formulated as a principle concerning human beings' maximizing (optimizing) actions, whereas assumptions defining the kind of situational constraints applying to individuals and the kind of information that they have in a given situation constitute a description of a situation in which the acting individuals have found themselves. They are a variable, testable element of the situational analysis as an explanatory method used in standard economics.

Reconstructing the structure of a situational explanation, it can be assumed to have the following form:

1) the description of a situation: A person A was in a situation of type C;

2) the analysis of a situation: in a situation of type C, it is appropriate to undertake an action X;

3) rationality principle: people always act appropriately to the situation in which they find themselves;

4) explanation: (therefore) A undertook an action X.

It is worth noting that the explanation by means of the situational analysis as applied in standard economics has two characteristics. First, the method does not explain individual choices *per se*, but rather, by adopting the assumption of human rationality, strives to explain market phenomena. In particular, the attention of standard economics is focused on solving the problem of determining whether there exist equilibriums in which the actions of optimizing individuals become co-

[1] In the present article, "standard economics" is understood as classical and neoclassical economics.

ordinated and, if so, what features they have from the point of view of economic efficiency. The states of markets and economies that are unstable or characterized by multiple equilibriums remain, as anomalies, outside the sphere of interest of standard economics. Also outside the area of the interest of standard economics there are investigations of procedures applied by economic individuals to gain knowledge necessary to make optimal decisions. As a result, the principle of maximization coupled with the concept of equilibrium as a state to which micro-entities, markets, and economies tend caused standard economics to be limited to a strongly formalized static analysis. Commenting on this approach, Andrew Schotter concludes that the only institutions that exist in the economy as analysed by standard economics are competitive markets in which prices are formed that are the source of all information in the economy [Schotter 1983, p. 675]. "The economy is therefore, assumed to have no money, no property rights, no legal system, no banks – in short, none of the many social institutions that are created by societies to help coordinate their economic and social activities by offering information not available in competitive prices" [Schotter 1983, p. 675].

Second, the situational analysis method does not explicitly address the aims of individuals' actions or individuals' convictions. In standard economics, the rationality principle underlying the method, which Karl Popper took to argue that actions are appropriate to the situation, means that actions follow the rules described by the maximization conditions of the utility function, which defines the preferences of the economic individual and the formal objective of their choices. Such an approach may have arisen from a conviction that rationality was a concept that did not require to be defined and that to consider something to be rational was tantamount to considering it to be sensible, proper, and in line with some recognized objective. This conviction seems justified inasmuch as it is often assumed that the ability to reason is what differentiates people from animals. There is no agreement, however, as to the nature of this ability.

Some philosophers, like Plato or Aristotle, came to the conclusion that using reason is the highest good for human beings. Others, like Immanuel Kant, concluded that it is the only method that makes man capable of free action and contrasted rational conduct with the conduct resulting from uncontrolled emotions. Still others, such as David Hume, limited the scope of the concept of rationality by assuming that it concerns only logical and mathematical reasoning, but does not define the empirical process of forming convictions. Hume's well-known statement [Hume 1963] that reason is "the slave of the passions" is a clear reversal of the Platonic vision of reason (charioteer) controlling unruly passions (horses).[2]

[2] It is worth noting that rationality plays a key role in Max Weber's sociology, where it is an attribute of the free man and denotes the conscious choice of goals and means to attain them. Weber hoped that building an ideal rational action type might lead to the application of cause-and-effect explanation in social sciences. The more rational an action is, the more predictable it is, a given cause resulting in a given effect. After Szacki [2003, p. 471].

Without overstating the influence of philosophy on the formation of economic concepts of rationality, one cannot but notice a similarity of the controversies in both fields with regard to the role of reason and emotion in choices made by individuals. Returning to the main theme of our present discussion, it should be pointed out that the formalized approach to theory, characteristic of standard economics, entails its axiomatic character with regard to the modelling of the economic individual. However, whereas in the concepts aiming to explain the functioning of markets, the rationality postulate is identical with the principle of maximization, in utility theory, and especially in the concept of expected utility maximization put forward by John von Neumann and Oskar Morgenstern, the rationality postulate was expanded with a bundle of axioms describing the conditions to be satisfied by the preferences of an economic individual maximizing expected utility. These conditions include completeness, transitivity of preferences, and their independence. Questioning these conditions through experiments has been the focus of some representatives of behavioural economics demonstrating in that way that choices made by individuals are not rational in the von Neumann-Morgenstern sense.

3. Nature of the economic individual in behavioural economics

In contrast to standard economics, which accepts rationality as an axiom, behavioural economics[3] assumes that the nature of economic individuals is an empirical category, whose content can be described on the basis of the results of experimental research. Generally, such research leads to reveal a person who [Tyszka 2010; Nofsinger 2011; Gigerenzer 2009; Akerlof, Kranton 2010; Akerlof, Schiller 2009; Kahneman, Tversky 1979]:

- has problems making choices in situations where they are faced with a choice among options described by multiple attributes;
- succumbs to cognitive illusions and makes choices dependent on how the consequences of the choices are presented;
- makes choices guided by emotions such as anger, guilt, pride, or altruism;
- bases their own choices on decisions of others, guided by the principle of reciprocity;
- is motivated, at least in part, by empathy and care for the good of others;
- creates mental alternative to choices and adopts self-imposed rules of conduct that enable them to control future actions and resist temptations;
- uses heuristic simplification in complex analytical processes;
- responds differently to losses and gains, being averse to losses;
- acts egoistically, but their egoism is in conflict with two fundamental social instincts; namely, the family instinct, i.e., “care for your relations”, and the tribal instinct, i.e., “join a group, cooperate with its members, and protect them”.

[3] I am using this term in relation to an approach to psychological research where the results are a basis for hypotheses regarding the effect of the psyche and emotions on economic decisions.

The list is not a complete description of human psychological propensities held by psychologists to influence the decisions of economic individuals. The list of such features could be extended, but even in the present form it makes it possible to observe that the research results presented by psychologists are hard to interpret unequivocally.

On the one hand, authors concentrate on challenging the axioms of the expected utility maximizer's preferences and conclude that, as human preferences do not meet the conditions of transitivity and independence, it can be claimed that economic individuals act irrationally.[4] It should be noted, however, that this conclusion is based on the notion that a judgment is rational only if it follows the rules of logic and probability calculus. To illustrate this problem and bring into focus the doubts that it raises, it is worth citing a certain psychological experiment [cf. Gigerenzer 2009, pp. 105-106]. The subjects were presented with the following problem:

Linda is thirty-one years old. She is single, outspoken, and very bright. She majored in philosophy. As a student, she was deeply concerned with issues of discrimination and social justice, and also participated in anti-nuclear demonstrations. Which of the following is more likely?

1) Linda is a bank teller.

2) Linda is a bank teller who is active in the feminist movement.

Most of the subjects chose the second statement, which Amos Tversky and Daniel Kahneman considered the wrong answer, contradicting the rules of logic: the conjunction of two propositions (Linda is a bank teller and Linda is active in the feminist movement) cannot have a greater probability than one of them (Linda is a bank teller). However, the results of the experiment can be interpreted differently if one adopts a definition of "rational" as found in a dictionary: based on logical reasoning, consistent with existing facts. In that case, given Linda's profile presented by the experimenter, what is more likely in the sense of being possible, based on reliable premises, is the state of affairs described by the second statement.

On the other hand, some representatives of behavioural economics point out that the results of their research only provide a basis for rejecting a model of a one-dimensional human being, guided by reason alone. They suggest that the *homo oeconomicus* model should be replaced by a concept of an individual who is also guided in their choices by intuitions, instincts, altruism, and empathy. Others, like George Akerlof and Rachel Kranton, develop concepts aimed at explaining the dependence of preferences on group identity and, in consequence, propose an explanation of choices made by economic individuals by reference to the social context in which they function and the norms of behaviour shaped within that context. This approach is akin to that of old institutional economics, which will be discussed in the next

[4] In the presented list of features describing the propensities of the human psyche, the first one indicates the incompleteness of preferences, whereas the second one reveals that preferences are not ordered.

section. Meanwhile, the place of institutions within behavioural economics remains to be determined.

Those behavioural approaches that focus on explaining the actions of individuals in terms of preferences and attitudes by using the rules of logic and neural modelling techniques ignore the institutional environment. It can thus be concluded that, like standard economics, they belong to the category of institutional-free theories. This does not preclude the possibility of formulating postulates within those approaches with regard to shaping the institutional environment in such a way as to induce people to make choices that are more advantageous to them. For instance, there are proposals of pension schemes that would facilitate overcoming people's predilection for preserving the *status quo* and provide incentives to save for retirement [Sunstein, Thaler 2003].

In other behavioural concepts, which indicate the multiplicity of factors motivating economic individuals, institutions, and especially social norms, are analysed either as constraints on decisions or as variables in the utility function. Such an expansion of the range of people's motives may provide the premise for explaining phenomena remaining outside the area of interest of standard economics. For instance, the assumption that voters are not only guided by economic interests, but also identified with specific groups makes it possible to explain why candidates appeal to voters' ideals and why they can get elected even if they propose policies conflicting with voters' economic interests [Akerlof, Kranton 2010].

4. Models of the economic individual and explanation of institutions in institutional economics

New and old institutional economics differ in both how they characterize the economic individual and how they explain institutions. Herbert Simon's approach to defining bounded rationality can be taken as a point of departure for describing these differences.

Simon rejected the model of the hyper-rational individual and adopted an assumption of bounded rationality, which was not defined unequivocally. In an early definition given by Simon, bounded rationality is an attribute of human actions that are "intendedly rational, but only limitedly so" [Simon 1947, p. xxiv]. That definition has led to a variety of corollaries. One is that intentionality and purposefulness of choices excludes actions based on customs, habits, or routines from the category of bounded rational actions. This approach is characteristic of new institutional economics.

Another one is that being limited or bounded should be interpreted as a problem of cognitive constraints and limited information processing capacity. According to new institutional economics, this does not preclude maximizing actions. The representatives of new institutional economics maintain that while individuals cannot take into consideration the entire complexity of phenomena because of their

limited capacity, they still endeavour to find the best solution [Williamson 1985]. In contrast, in old institutional economics it is argued that because human beings cannot gather and process information necessary to maximize the result of their actions, they satisfy themselves with a lower (satisficing) level of goal attainment.

Another aspect of Simon's definition of rationality, relevant to institutional economics, is the concept of procedural rationality, which indicates that rationality applies not to the outcomes of actions but to actions themselves [Simon 1976]. It is therefore possible to interpret bounded rationality as rule following, as argued by old institutional economics.

Thus, the main differences in the conceptualization of the economic individual and in explaining institutions within institutional economics can be described as follows. New institutional economics opts for the concept of an individual acting rationally, adjusting their choices to changing conditions in such a way as to maximize their own benefits. Interactions between individuals lead to the emergence of institutions as intended or unintended consequences of individual actions. Thus, new institutional economics does not attach weight to the role of institutions in shaping preferences, values, and goals of economic individuals, as a result of which it is unsuccessful in explaining the following questions:

– Why do people act according to specific rules, affording them the status of norms in situations where failure to observe the rules is not subject to external sanctions?
– Why do people act according to specific rules in situations where failure to observe the rules could not be discovered and would be advantageous?
– Why do people adopt certain rules when doing so does not provide individual benefits, but requires incurring costs?

This indicates the limited ability of new institutional economics to explain the process of the formation of social norms, but does not disqualify its explanatory capabilities with regard to other institutions. This is explicitly emphasized by Douglas North, who concluded that the concept of the utility maximizing individual may be useful in explaining many phenomena, but does not make it possible to fully understand the process of the formation and development of institutions [North 1990, p. 24].

A characteristic feature of old institutional economics is the concept of the rule follower or, to use a different term, the institutionalized individual, who acts on the basis of habits and routines and internalizes social norms and conventions. Under this approach, institutions change not only under the influence of the actions of individuals, but also, in part, under the influence of the operation of institutions. However, the question arises whether actions based on habits and routines are irrational. Two points of view regarding this question can be distinguished [Rutherford 1996]. One involves rejecting only the assumption of rational choices made in each case a decision is made (case-by-case maximization). Under this view, it is assumed that human behaviour depends primarily on circumstances of actions, such that in some

situations actions based on routines and habits are an individual's conscious choice. The other view, related to behaviourism, assumes that if a human being acts on the basis of habits, understood as automatic, self-activated tendencies to act following pre-existing models of behaviour, then they do not make choices but rather behave.

To sum up, it should be noted that despite many differences between old and new institutional economics, it is possible for a compromise position to emerge regarding two key issues. Firstly, if one discards the extreme models of the economic individual, i.e., behaviourism and the concept that assumes hyper-rationality, then it seems that the compromise solution would be a model assuming that human motivations are complex and include not only self-interest by also specific values and ideas. Secondly, the relationship between institutions' and individuals' actions seems to be in the nature of a feedback loop. This entails the assumption that institutions and their changes result from actions of individuals and, at the same time, constrain and influence the possibilities of such actions as well as their goals.

5. Conclusion

There is no doubt that standard economics is unsuccessful in explaining numerous economic phenomena, among others as a result of the concept of the economic individual that it embraces. Attempts undertaken to overcome the limited explanatory capacity of standard economics have resulted in the emergence of alternative concepts of the economic individual that aim to explain more fully the choices made by economic individuals by lowering the level of abstraction of the standard model or setting aside some of its assumptions. What is important, however, is that there is no single concept of explaining the actions of economic individuals, but rather a set of models, similar in some respects and different in others.

What is common to the "nonstandard" models of the economic individual is the rejection of the concept of the individual as a "black box", in the sense of the permanence of preferences, the rejection of the assumption of hyper-rationality, and broadening of the range of motives of the economic individual's actions.

What differentiates the "nonstandard models" is primarily the meaning ascribed to the concept of rationality, which entails the possibilities and constraints relating to recognizing the role of the social and institutional context in a given model. The concepts that identify rationality with maximization (optimization) are devoid of institutional context because their correctness, the validity of the mathematical construction, is not verified by empirical reality. In contrast, attempts to incorporate into the model of the economic individual the environment in which they operate, including especially the uncertainty prevailing in that environment, lead to the popular understanding of rationality as a purposeful action based on logical reasoning consistent with available data. However, abandoning the assumption that man has an ability to think probabilistically entails accepting that economics, as a science, has a limited capability to make predictions about the course of economic phenomena.

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INSTYTUCJE A KONCEPCJE OSOBY GOSPODARUJĄCEJ

Streszczenie: W artykule zostały omówione koncepcje osoby gospodarującej przyjęte w ekonomii standardowej, ekonomii behawioralnej oraz ekonomii instytucjonalnej z punktu widzenia miejsca, jakie zajmują w nich instytucje i jak są wyjaśniane. Z przeprowadzonych rozważań wynika, że uwzględnienie w modelu osoby gospodarującej kontekstu instytucjonalnego wymaga odejścia od założenia przypisującego człowiekowi zdolność probabilistycznego myślenia i uznania, że ekonomia ma ograniczone możliwości formułowania predykcji dotyczących przebiegu zjawisk ekonomicznych.

Słowa kluczowe: instytucje, racjonalność, ekonomia standardowa, ekonomia behawioralna, ekonomia instytucjonalna.