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Economic Rationality versus Human Reason

Abstract

First the paper analyses the rationality assumptions of mainstream economics and shows that they are empirically misleading and normatively inadequate. It argues that the world ruled by self-interest based rationality of economic actors leads to 'unreason' from a wider ecological and human perspective. The paper illuminates that human reason requires a different way of economic functioning which implies a redefinition of the final goal economizing.

It is argued that the main goal of economic activities should not be profit-making but providing right livelihood for people. Amartya Sen suggests that economic reason can be understood as reasonableness of preferences, choices and actions. Reason requires that economic activities are achieved in ecological, future-respecting and pro-social ways. Intrinsically motivated economic agents who balance their attention and concerns across diverse value-dimensions are able to do this and show the viability of true economic reason under the circumstances of present day "rationally foolish" economic world.

In the Financial Times and his Apostolic Exhortation „EVANGELII GAUDIUM” *Pope Francis* heavily criticizes the idolization of money and the excesses of global capitalism including the „widespread preoccupation with profits and today’s throwaway culture, that enslave the heart and mind of all of us”. (Dinmore and Segreti 2013, Pope Francis 2013)

The doctrine of mainstream economics is greatly responsible for the development of the economics-dominated world today where – in words of *John Maynard Keynes* – „fair is foul and foul is fair” because „foul is useful and fair is not”. (Keynes 1930)

First the paper analyses the *rationality assumptions* of mainstream economics and shows that they are empirically misleading and normatively inadequate. It argues that the world ruled by self-interest based rationality of economic actors leads to ‘unreason’ from a wider ecological and human perspective. The paper illuminates that *human reason* requires a different way of economic functioning which implies a redefinition of the final goal of economizing.

1 Economic Rationality

The *rational choice model* has been widely used in economics, political science and other social sciences as a basic model of human choice behavior. The model states that the agent should maximize her or his utility function to be considered rational.

Agents are considered rational if their preferences are transitive and complete and they choose what they most prefer among the available alternatives.

The rational choice model does not presuppose anything about the preferences people have. They may have self-centered, altruistic or even sado-masochistic preferences. The rational choice model represents a formal theory that says nothing about what people prefer or should prefer. Hereafter this model is referred as the *weak form of rationality*.

In economics and also in political science we can find a much stronger version of rationality where the assumptions of self-interest and perfect knowledge are added to the weak form of rationality. Hence we get the *Homo Oeconomicus* model according to which individuals are rational, exclusively self-interested and have perfect knowledge

about the consequences of their choices. The Homo Oeconomicus model does have *substantive assumptions* about what people want and the manner in which they want it. This model is hereafter referred to as the *strong form of rationality*. (Zsolnai 2008)

Herbert A. Simon (1982) has been a relentless critic of the rational choice model for decades. He states that the model has overly strong claims on human beings. Real people have poor cognitive capacity and the information available to them is rather limited in most cases.

Agents in the real world are not capable of maximizing their utility function. Instead of maximizing, they usually make "*satisficing*" decisions. They usually choose the first available alternative that is good enough for them in the sense that it satisfies their aspiration level. This is the main message of the *theory of bounded rationality* for which Simon received the Nobel Prize in Economics.

Simon writes, "Faced with a choice situation where it is impossible to optimize, or where the computational cost of doing so seems burdensome, the decision maker may look for a satisfactory, rather than an optimal alternative. Frequently, a course of action satisfying a number of constraints, even a sizeable number, is far easier to discover than a course of action maximizing some function." (Simon 1987: 244.)

The question arises of how a decision maker may set the level of criteria that define "satisfactory". "Psychology proposes the mechanism of aspiration levels: if it turns out to be very easy to find alternatives that meet the criteria, the standards are gradually raised; if the search continues for a long while without finding satisfactory alternatives, the standards are gradually lowered. Thus, by a kind of feedback mechanism, or 'tatonement', the decision maker converges toward a set of criteria that are attainable, but not without effort. The difference between the aspiration level mechanism and the optimization procedure is that the former calls for much simpler computations than the latter." (Simon 1987: 244.)

During the last decades abundant empirical evidence has been produced by economists and psychologists that shows that bounded rationality is important in real world situations.

Psychologist *Daniel Kahneman* criticizes the rational choice model on the basis of research findings, which indicate that people are *myopic* in their decisions, may lack skill in predicting their future tastes, and can be led to *erroneous choices* by fallible memory and incorrect evaluation of past experiences. (Kahneman 2011)

Kahneman differentiates between experienced utility and predicted utility. The *experienced utility* of an outcome is the measure of the hedonic experience of that outcome. The *predicted utility* of an outcome is defined as the individual's beliefs about its experienced utility at some future time. Predicted utility is an *ex ante* variable, while experienced utility is an *ex post* variable in the decision-making process.

According to the rational choice model, decisions are made on the basis of predicted utility. If experienced utility greatly differs from predicted utility then this may lead to sub-rational, or even irrational choices.

The problem of predicted utility raises the question: "Do people know what they will like?" The answer is a definite "No." The accuracy of people's hedonic predictions is generally quite poor.

Experimental studies suggest two conclusions: (i) people may have little ability to forecast changes in their hedonic responses to stimuli; and (ii) even in situations that permit accurate hedonic predictions, people may tend to make decisions about future consumption without due consideration of possible changes in their tastes. (Kahneman 2011)

Discrepancies between *retrospective utility* and *real-time* utility should also be addressed. This leads to the question: "Do people know what they have liked?" The answer is again a definite "No." Psychological experiments show that retrospective evaluations should be viewed with greater distrust than introspective reports of current experience.

The results of these studies support the following two empirical generalizations: (1) *The Peak & End Rule*: global evaluations are predicted with high accuracy by a weighted combination of the most extreme affect recorded during the episode and of the affect

recorded during the terminal moments of the episode. (2) *Duration Neglect*. The retrospective evaluation of overall or total pain (or pleasure) is not affected by the duration period. (Kahneman 2011)

Since individuals use their evaluative memories to guide them in their choices toward future outcomes, deceptive retrospective evaluations may lead to erroneous choices.

Kahneman identifies two major obstacles to the maximization of experienced utility required by the rational choice model. People lack skill in the task of predicting how their tastes might change. It is difficult to describe as rational agents who are prone to large errors in predicting what they will want or enjoy next week. Another obstacle is a tendency to use the affect associated with particular moments as a proxy for the utility of extended outcomes. Observations of memory biases are significant because the evaluation of the past determines what is learned from it. Errors in the lessons drawn from experience will inevitably be reflected in deficient choices for the future. (Kahneman 2011)

Amartya Sen concluded that if real people behaved in the way that is required of them by the rational choice model then they would act like “rational fools.”

Sen criticizes both the weak and strong forms of rationality. He refers to the weak form as “internal consistency of choice” and to the strong form as “maximization of self-interest.”

He states “It is hard to believe that internal consistency of choice can itself be an adequate condition of rationality. If a person does exactly the opposite of what would help achieving what he or she would want to achieve, and does this with flawless internal consistency (always choosing exactly the opposite of what will enhance the occurrence of things he or she wants and values), the person can scarcely be seen as rational. (...) Rational choice must demand something at least about the correspondence between what one tries to achieve and how one goes about it.” (Sen 1987: 13)

Sen uses the term “*correspondence rationality*” to describe the correspondence of choice with the aims and values of the agent. He states that this kind of correspondence must be a necessary condition of rationality, regardless of whether or not it is also the sufficient

condition. Correspondence rationality might be supplemented by some requirements on the nature of the reflection regarding what the actor should want and value. (Sen 1987: 13-14)

It might well be arguable that rational behavior must demand some consistency, but consistency itself can hardly be adequate to ensure the rationality of choice. Internal consistency is not a guarantee of a person's rationality.

Rationality as *self-interest maximization* has additional problems. Sen asks, "Why should it be uniquely rational to pursue one's own self-interest to the exclusion of everything else?" Sen argues that the self-interest view of rationality "involves inter alia a firm rejection of the "ethics-based" view of motivation. Trying to do one's best to achieve what one would like to achieve can be a part of rationality, and this can include the promotion of non-self-interested goals which we may value and wish to aim at. To see any departure from self-interest maximization as evidence of irrationality must imply a rejection of the role of ethics in actual decision making." (Sen 1987: 15.)

According to Sen, "universal selfishness as actuality may well be false, but universal selfishness as a requirement of rationality is patently absurd." (Sen 1987: 16)

Rationality can be interpreted broadly as the discipline of subjecting one's choice - of action as well as objectives, values and priorities - to reasoned scrutiny. In the light of this definition reasonable economic choices should not necessarily satisfy the criteria of "internal consistency of choice" or "maximizing self-interest". Economic choices should be subjected to the demands of reason. (Sen 2002)

Behavioral economist *Robert Frank* developed a model that emphasizes the role of the emotions in making choices. Frank argues that *passions* often *serve our interest* very well indeed because we face important problems that are simply unsolvable by rational action. "Emotions often predispose us to behave in ways that are contrary to our narrow interests, and being thus predisposed can be an advantage." (Frank 1988: 4-7)

Human behavior is directly guided by a complex psychological reward mechanism. Rational calculations are the input for the reward mechanism. “Feelings and emotions, apparently, are the proximate causes of most behavior. (...) The reward theory of behavior tells us that these sentiments can and do compete with feelings that spring from rational calculations about material payoffs.” (Frank 1988: 51-53)

The *modular brain theory* supports Frank’s ideas. According to the modular theory, the brain is organized into a host of separate modules. Each module has its own capacity for processing information and motivating behavior. Most of these brain modules do not “speak”; they simply do not have language capability. Even more importantly, these non-language modules are *not* equally well connected to the central language module of the brain. Perhaps this is the cause of the seeming disparity between different methods of assessing motivation.

Modular brain theorists view the language module of the brain as the center of our rational consciousness, obsessed with rationalizing all that we feel and do. However, there is a great deal of information that enters the central nervous system that cannot be accessed by the language module. The modular brain theory suggests; “that when economists talk about maximizing utility, they are really talking about the language module of the left hemisphere, however, it does not account for all of our behavior. (...) The rational utility-maximizing language module of the brain may simply be ill-equipped to deal with many of the most important problems we face.” (Frank 1988: 205-211)

Frank’s main conclusion is that persons directly motivated to pursue their self-interest are often doomed to fail for exactly that reason. Problems can often be solved by persons who have abandoned the quest for maximal material advantage. The emotions that lead people to behave in irrational ways can indirectly lead to greater material well-being. (Frank 1988: 258-259)

After a decade-long preoccupation with the rational choice model, sociologist *Jon Elster* developed an alternative theory that he calls the *theory of social norms*. (Elster 1989, 2007) Elster contrasts rational action with norm-guided behavior. Rational action is outcome-oriented. Rationality says: “If you want to achieve X, do Y.” Elster defines

social norms as devices that are not outcome-oriented. Social norms say “Do X” or “Do not do Y” or “If you do X then do Y” or “Do X if it would be good if everyone did X.”

“Rationality is essentially conditional and future-oriented. Its imperatives are hypothetical; that is, conditional on the future outcomes one wants to realize. The imperatives expressed in social norms are either unconditional or, if conditional, not future-oriented. In the latter case norms make the action dependent on past events or (more rarely) on hypothetical outcomes.” (Elster 1989: 98)

Not all norms are social. There are two requisite conditions for norms to be considered social. First, they must be shared by other people and second, partly sustained by their approval or disapproval. “In addition to being supported by the attitudes of other people, norms are sustained by the feelings of embarrassment, anxiety, guilt and shame that a person suffers at the prospect of violating them, or at least at the prospect of being caught violating them. Social norms have a grip on the mind that is due to the strong emotions their violations can trigger. (...) A norm, in this perspective, is the propensity to feel shame and to anticipate sanctions by others at the thought of behaving in a certain, forbidden way.” (Elster 1989: 99-100 and 105.)

Elster argues for the reality and autonomy of social norms. By the reality of norms he means that norms have independent motivating power. Norms are not merely ex post rationalization of self-interest. They serve as ex ante sources of action. Autonomy of norms means their *irreducibility* to *optimization*. Norms are *partly shaped* by self-interest because people often adhere to the norms that favor them. However, norms are not fully reducible to self-interest. The unknown residual is a brute fact. (Elster 1989: 125 and 150)

Communitarian thinkers criticize the *liberal conception* of the *self* that is at the heart of the rational choice model.

Philosopher *Charles Taylor* has argued that the liberal conception of the self is basically an atomistic conception of the person and that of human agency focusing exclusively on will and freedom of choice. Taylor defends a relational, inter-subjective conception of the self that stresses the social, cultural, historical and linguistic constitution of personal

identity. By rejecting the voluntaristic conception of human agency he has formulated a cognitive conception that emphasizes the role of critical reflection, self-interpretation, and rational evaluation. (Taylor 1985)

Catholic philosopher *Alasdair MacIntyre* defends a teleological and contextualist view of human agency. According to him, moral conduct is characterized by the *exercise* of *virtues* that aims at realization of the good. No agent can properly locate, interpret, and evaluate her or his actions except by participating in a moral tradition or in a moral community. (MacIntyre 1988)

In feminist literature the rational choice theory, and especially the strong form of rationality, is often criticized for presupposing an androcentric, male-biased conception of the human person, the so-called *separative self*. (Ferber and Nelson (eds.) 1993, Nelson 2006)

In her book "Beyond Self-Interest" *Jane J. Mansbridge* offers an alternative theory of choice that is inspired by feminine values. She distinguishes three forms of motivation, namely *duty*, *self-interest*, and *love*. Starting with her own case she says, "I have a duty to care for my child, and I am happy by his happiness, and I get a simple sensual pleasure from snuggling close to him as I read him a book. I have a principled commitment to work for women's liberation, and I empathize with women, and I find a way to use some of my work for women as background to a book that advances my academic career. Duty, love (or empathy), and self-interest are intermingled in my actions in a way I can rarely sort out." (Mansbridge 1990: 134)

Mansbridge favors the coincidence of duty and love with self-interest. She says that both forms of non-self-interested motives (empathic feelings and moral commitments) are embedded in a social context, which makes them susceptible to being undermined by self-interested behavior on the part of others. Arrangements are required that generate some self-interested return for non-self-interested behavior to create an "ecological niche" for sustaining such behavior. Arrangements that make the absence of self-interested behavior less costly in self-interested terms increase the degree to which individuals feel that they can afford to indulge their feelings of empathy and their moral commitments. (Mansbridge 1990: 136-137)

Based on the criticisms reported above we can say that the concept of economic rationality propagated by mainstream economics is *empirically misleading* and *normatively inadequate*. James March rightly characterized it as the myth of rationality. (March 2006)

The conception of economic rationality understood as materialistic self-interest maximization inevitably leads to large-scale ecological destruction, human deprivation and disregard for the interest of future generations.

2 Human Reason

According to *Amartya Sen* human reason requires that an action is based on right motivation, executed by fair processes, and leads to desirable outcomes. (Sen 2004) Within this interpretation, economic rationality as we know it is neither intelligent nor ethical by definition.

I argue that economic activities should pass the test of *ecology*, *future generations*, and *society* to be qualified for human reason. This triple criteria require that economic activities should not destroy nature, or violate the interests of future generations, or pose negative impacts on society. Economic actions can be claimed 'reasonable' only if they satisfy all of these criteria.

From the perspective of nature ecological integrity is a central value. The notion of ecological integrity was introduced by American environmentalist Aldo Leopold in his classic *A Sand County Almanac*. He writes: "a thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community. It is wrong when it tends otherwise." (Leopold 1948)

Economic activities might be evaluated against environmental indicators that operationalize the notion of ecological integrity.

Let A be an economic activity. Let $E_1, \dots, E_j, \dots, E_n$ be environmental indicators. ($n > 1$)

$E_i(\cdot)$ is an ecological value function defined as follows:

$$(1) \quad E_j(A) = \begin{cases} 1 & \text{if economic activity } A \text{ is good regarding} \\ & \text{environmental indicator } E_j; \\ 0 & \text{if economic activity } A \text{ is neutral regarding} \\ & \text{environmental indicator } E_j; \\ -2 & \text{if economic activity } A \text{ is bad regarding} \\ & \text{environmental indicator } E_j. \end{cases}$$

$E_i(A)$ reflects the ecological value of economic activity A regarding environmental indicator E_j .

The following vector represents the ecological value of economic activity A regarding all environmental indicators $E_1, \dots, E_j, \dots, E_n$.

$$(2) \quad E(A) = [E_1(A), \dots, E_j(A), \dots, E_n(A)]$$

To get an aggregate picture about the ecological value of the economic activity in question we should define weights that show the importance of environmental indicators. Let $a_1, \dots, a_j, \dots, a_n$ be such importance weights.

It is required that

$$(3) \quad a_j = 1$$

The aggregate ecological value of economic activity A can be calculated as follows:

$$(4) \quad E(A) = \sum a_j E_j(A)$$

$E(A)$ shows the aggregate ecological value of economic activity A . ($1 \leq E(A) \leq -2$)

An economic activity is considered ecological if and only if its aggregate ecological value is positive. That is

$$(5) \quad E(A) > 0$$

How can we evaluate economic activities from the perspective of future generations? We can never know much about the interests of future generations but freedom is a central value here.

Edith Brown Weiss argued that the freedom of future generations is insured by satisfying the following principles: (i) conservation of options; (ii) conservation of quality; and (iii) conservation of access. (Brown Weiss 1989)

Considering principles (i),(ii), and (iii) future generations indicators can be created. Let $F_1, \dots, F_j, \dots, F_n$ be such indicators against which economic activity system can be evaluated. ($n > 1$)

Future generations value function $F_j(\cdot)$ is defined as follows:

$$(6) \quad F_j(A) = \begin{cases} 1 & \text{if economic activity } A \text{ is good regarding} \\ & \text{future generation indicator } F_j; \\ 0 & \text{if economic activity } A \text{ is neutral regarding} \\ & \text{future generations indicator } F_j; \\ -2 & \text{if economic activity } A \text{ is bad regarding} \\ & \text{future generations indicator } F_j. \end{cases}$$

$F_j(A)$ reflects the future generations value of economic activity A regarding indicator F_j .

The following vector represents the future generations value of economic activity A regarding future generations indicators $F_1, \dots, F_j, \dots, F_n$.

$$(7) \quad F(A) = [F_1(A), \dots, F_j(A), \dots, F_n(A)]$$

To get an aggregate picture about the future generations value of economic activity A we should introduce weights that show the importance of indicators $F_1, \dots, F_j, \dots, F_n$. Let $b_1, \dots, b_j, \dots, b_n$ be such importance weights.

It is required that

$$(8) \quad b_j = 1$$

The aggregate future generations value of economic activity A can be calculated as follows:

$$(9) \quad \sum_{j=1}^n F_j(A)$$

$F(A)$ shows the aggregate future generations value of economic activity A.

$$(10) \quad F(A) > 0$$

An economic activity can be considered future respecting if its aggregate future generations value is positive. That is

$$(10) \quad F(A) > 0$$

Economic activities should be pro-social, that is should contribute to the development of people's capabilities.

Amartya Sen proposed to understand people's well-being in terms of capabilities. Capability is a reflection of the freedom of a person to achieve valuable functioning. Therefore capabilities can be interpreted as a substantive freedom that people enjoy. (Sen 1992)

Let $G_1, \dots, G_j, \dots, G_n$ be capability indicators against which the economic activities can be evaluated. ($j > 1$)

Let $G_j(\cdot)$ social value function be defined as follows:

$$(11) \quad G_j(A) = \begin{cases} 1 & \text{if economic activity A is good regarding} \\ & \text{capability indicator } G_j; \\ 0 & \text{if economic activity A is neutral regarding} \\ & \text{capability indicator } G_j; \\ -2 & \text{if economic activity A is bad regarding} \\ & \text{capability indicator } G_j. \end{cases}$$

$G_j(A)$ shows the social value of economic activity A regarding capability indicator G_j .

The following vector represents the social value of economic activity system A regarding all the capability indicators $G_1, \dots, G_j, \dots, G_n$.

$$(12) \quad G(A) = [G_1(A), \dots, G_j(A), \dots, G_n(A)]$$

To get an aggregate picture about the social value of economic activity A we should introduce weights that show the importance of the capability indicators. Let $c_1, \dots, c_j, \dots, c_n$ be such importance weights.

It is required that

$$(13) \quad c_j = 1$$

The aggregate social value of economic activity A can be calculated as follows:

$$(14) \quad G(A) = \sum c_j G_j(A)$$

$G(A)$ shows the aggregate social value of the economic activity A . (1) $C(A) = -2$

An economic activity system is considered pro-social if its aggregate social value is positive. That is

$$(15) \quad G(A) > 0$$

3 Redefining the Final Goal of Economizing

I argued elsewhere (Zsolnai 2011) that profit is neither a necessary nor a sufficient criterion of reason in economic affairs. An economic activity can be reasonable without satisfying the profit requirement. And inversely, the produced profit is not a guarantee that an economic activity is reasonable in a wider ecological and social context.

According to human reason economic activities should be ecological, future respecting, and pro-social. For them (5), (10), and (15) should be simultaneously hold. That is

$$(16) \quad E(A) > 0, \quad F(A) > 0, \quad G(A) > 0$$

From (16) we can derive some basic laws of economizing.

The First Law says that

() Economic activities should not harm nature or allow others to come to harm.

The Second Law says that

() Economic activities must respect the freedom of future generations except where such respect would conflict with the First Law.

The Third Law says that

() Economic activities must serve the well-being of society as long as such service does not conflict with the First or Second Law.

The main goal of economic activities should not be profit-making but providing right livelihood for those who are involved. Human reason requires that this is achieved in ecological, future respecting, and pro-social ways. Intrinsically motivated economic agents who balance their attention and concerns across diverse value-dimensions are able to do this. The Slow Food movement, ethical fashion, fair trade initiatives, and ethical banking show the viability of true human reason within the present day “rationally foolish” economic world.

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