RATIONALITY IN ECONOMICS – MALE AND FEMALE PERSPECTIVES

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Abstract
What role does the assumption of rationality in economic decision-making play in the context of global society? Does the standard economic science meet expectations in solving current problems? Who is the homo economicus - man or woman? The article critiques the ruling economic paradigm of the economic man who unceasingly carries out ruthless cost-benefit calculations. It brings both standard and non-standard approaches to the concept of rationality in economic theory in the context of global reality. It outlines the possibilities of alternative views, emphasizing ethical and responsible approaches, including female perspectives and reflections, and whether there is a purely feminine rationality. The article questions the cause of the yet relatively low utilization of women's potential in science and professional positions in the economic sector within the context of the increasing demands of global competition. Rationality’s task is to answer this existential question: what does the current state of the world imply for humans and appropriate ways forward? Reconciliation between nature and culture, men and women, offers the possibility to radically transform society and the environment in the spirit of sustainability.

Key words: economic rationality, women rationality, economic paradigm, homo economicus, woman’s potential,

JEL Code: A 12, B54, D 8

Introduction
Current global processes influence all areas of human existence, changing the quality of the problems that need to be solved. Contemporary global markets are characterised by complexity, unsteadiness, increasingly higher competitive pressure and, above all, by interconnectedness. Progressive scientific, technical and economic advancement accompanied by increasing threats and damage is in sharp contrast with slow changes in people’s attitude or patterns of behaviour. Constant population growth, especially in less developed regions, profit orientation, growing consumption and wastage in the most developed areas may lead (and it
already does) to global economic and social conflicts. Problems related to the sustainable future and economic growth together with global impacts of all decisions require accepting responsibility and evoke many questions including questioning the current paradigm. Neoclassical economics, the dominating part of traditional economic theory, stems from methodological individualism and expects economic subjects to behave rationally. But does it actually fulfil the presumption of rationality and the current concept of expectations when solving current problems?

1 Rationality in Standard Economic Theories

Rationality, i.e. acting and reasoning on the basis of reasoning\(^1\) has often been the subject of different social sciences originating in antique philosophy continuing to thoughts by R. Descartes, G. W. Leibnitz, G. W. F. Hegel, I. Kant or J. S. Mill, to modern concepts (M. Weber, K. R. Popper, J. Habermas, H. Marcuse, I. Prigodine, I. M. Wallerstein, F. Capra, J. F. Lyotard, J. Ch. Harsanyi and others).

Rationality is associated with decision making according to the cost-benefit criteria (Frank, 1995) – including the self-interest standard (human selfishness) or the standard of momentary target when making a decision (charity and obligation can be included here). Rational behaviour establishes efficiency orientation – achieving the target with minimal costs on the basis of logical processes. In the main economic trends, two definitions of rationality prevail: one accentuates consistency in decision making (rationality is an indispensible condition, but not sufficient), the other identifies rationality with maximisation of own profit (Sirůček, 2002).

1.1 The Standard Economic Model of Man and Concept of Rationality

“The main trend in economic theory, based on the neoclassical paradigm of *homo oeconomicus* … presumes that a subject strives for maximum gain from consumption (on the side of the consumer) and for maximum profit (on the side of the manufacturer)” (Hlaváček, 1999, p. 67).

Philosophically, the concept of *homo oeconomicus* was originally grounded on utilitarianism (J. Bentham), later influenced by hedonism and sensualism. While A. Smith and others build their ideas on naturalism, modern theories argue with the axiomatics of rational behaviour. W. S. Jevons views economics in a utilitarian way as “mathematics of joys and

\(^1\) ratio = reason
sorrows”. Other pioneers of marginalism (C. Menger, L. M. E. Walras or V. Pareto) further developed the model. A. Marshall claims that “everyone chooses their ways of balanced maximisation of satisfaction”. The classical school based its thoughts on maximising personal profits, neoclassicists more broadly on utility, later including aspects of “uncertainty” in the form of the benefit of the expected (F. P. Ramsey, J. Neumann) or taking into account social influences which, however, usually overlap “genuine” neoclassicism. The basis of modern optimisation models is considered to refer to the “spiritual father of capitalism” A. Smith and his traditionally interpreted concept of man. In his Theory of Moral Sentiments\(^2\), he builds his thoughts on the ethics of solidarity and charity, however, in The Wealth of Nations\(^3\) he founds his thoughts on the ethics of self-interest, which he views as the most powerful human trait. Economic phenomena and laws stem from the human naturalism – everybody is driven by their own profit and is automatically led by “the unseen hand” of the market towards everyone’s profit (Smith, 2001, p. 398).

In its pure form, *homo oeconomicus* has a well-ordered preference ranking (given by non-economic factors), essentially perfect information and chooses those actions that would maximise his satisfaction with respect to his own interests. He is able to evaluate and classify all alternatives. It is a strictly logically behaving subject, unceasingly carrying out ruthless cost-benefit calculations and acting always rationally – even in the long term. Economic man is ahistoric, isolated from others and is absolutely free in his decision making (particularly when it comes to consumption). What is accentuated is the versatility of his rational behaviour – regardless of the environment, culture, institutions or property conditions. Criticised is especially his one-dimensionality and excessive consumerism of the maximisation model (Sirůček & Džbánková, 2006).

### 1.2 Other Selected Approaches to Human Behaviour and Rationality

The standard *homo oeconomicus* model has been developed in various ways and to different degrees. These are usually modifications, further improvements or generalisations that do not deny the original postulates and logic. As an example, we can mention decision modelling under risk, where neoclassicists convert the situation of uncertainties to quantifiable risks. The assumption of selfish preferences is “diluted” by the model of expected profit. Economists are also trying to identify “alternatives” to the neoclassical microeconomic rationality mentioning the principle of satisfaction (or bounded rationality) or the concept of cognitive imperfection.

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\(^2\) The Theory of Moral Sentiments (1759) – work from the field of moral philosophy

\(^3\) Wealth of Nations (1776)
(Hlaváček, 1999) to name a few. The first emphasises finding satisfactory and acceptable solutions and does not aspire to find the unequivocal optimum principle; the second is based on the thesis that rationality fails, including any systematic errors.

The model of bounded rationality by H. A. Simon is based on the findings that due to cognitive boundaries of thinking and aspects of emotional nature, decision makers are not able to optimise and choose satisfactory options, which corresponds with behavioural models of companies, game theory, etc. So called quasi-rational behaviour is associated with new Keynesian economics. In the context of many further developments we can mention manufacturer and consumer models of behaviour. The too narrow concept of the manufacturer criterion (profit maximisation) has been criticised by e.g. stochastics who modify the profit motive of co-operating manufacturers (e.g. labour managed companies) and extend profit calculation beyond the traditional application scope of economics or game theory. Alternative models of companies question the reporting ability of the profit criterion. Some trends that can be regarded as developing the neoclassical consumer model include e.g. considerations on decision making including the time factor, inclusion of customary (habitual) choice or so called attitude data or taking into account the influence of brand image. The common feature of all modifications is the limit position of the optimum, including decisions on “moral borderline”, which does not always have to represent a socially optimal and desirable state. Accentuated are aspects of real behaviour transcending the genuine neoclassical logic, such as unselfish preferences, altruism and solidarity with society that are rooted in the human mind and social bonds. There have also been attempts at partial generalisation enabling to model the behaviour of subjects preferring a situation within the group of acceptable solutions. For the purpose of analysing company behaviour, e.g. in a centrally planned economy, the homo se assecurans (“man securing himself”) model has been developed, other models working with threats are also being developed, etc. (Hlaváček, 1999, p. 156).

Alongside with rationality, human behaviour is also accompanied by morality and when considering human behaviour, we cannot avoid the term motivation. Economic psychology points out that people’s needs and goals are not restricted to a mere increase of individual’s material wealth – people feel, for instance, the need for social recognition. Psychology, in cooperation with biology, genetics, anthropology and zoology, formulates biological (i.e. genetic) roots of altruism and solidarity. For instance, R. Dawkins bases his theory on the competitiveness of the genetic imperative (the imperative of survival), zoologist

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4 When real subjects often do not act in accordance with traditional neoclassical schemes.
M. Riddley writes about evolutionary fundaments and regularities of unselfish behaviour. While talking about the inclusion of the need “to be respected by the society”, we shall mention the concept of herd demand function (H. Leibenstein), snobbish demand function, Veblen’s demand function (with ostentatious consumption) or the concept of artificially created needs by J. K. Galbraith. Hlaváček sums up four basic behaviour models of the 20th century: *homo oeconomicus* (economic man); *homo spectatus* (man proud of his position within his community); *homo instinctivus* (instinctive man) and *homo multitudinis* (man of the masses oriented on group motives). In social sciences we may come across the concepts of *homo sociologicus* (R. G. Dahrendorf), psychological man (P. Rief), *homo politicus* (A. Downs, S. M. Lipset, R. Lane). E. Fromm introduces *homo consumens* (with unlimited desire for consumption and property, manipulated by advertising), E. Durkheim’s sociology operates with “divided” man (*homo duplex*) where the individual and the social combines. *Homo ludens* (playing man by J. Huizinga) is another used term, this one accentuating the importance of game in the process of forming man and culture; H. Marcuse uses a critical concept of one-dimensional man in the environment of advanced industrial society (technological rationality). Sociology offers other concepts of man such as postmodern, marginal, organizational and others – pointing out various aspects of behaviour.

Since the antiquity, the history of social scientific thinking has been a conflict between individualism (or, in other words, the principle of individual welfare) and collectivism (the principle of public welfare) that can also be applied to rationality of human behaviour as well as the whole system. Individualistic determination serves as the base not only for traditional and modern neoclassical models, but also for approaches of the Neo-Keynesians and new Keynesians⁵ (Sirůček & Džbánková, 2006).

1.3 Major Trends in Criticising the Economic Man Model and Searching for a New Paradigm

There are numerous trends criticising the economic man model with serious theoretical and practical implications. For instance, M. Weber refuses the *homo oeconomicus* concept, arguing that rationality cannot be reduced to economical meanings only. Findings gathered by anthropologists, biologists, sociologists, psychologists, neurophysiologists, biochemists or behaviour science researchers point out complex motivations resulting in a broader

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⁵ By contrast, collectivistic approaches do not consider the individuals to be the basis, but they see man as a natural part of the collective with the emphasis on the constituting role of the social sphere (Marxists, radical political economists, Post-Keynesians, French structuralists and many institutionalists).
The 7th International Days of Statistics and Economics, Prague, September 19-21, 2013

conception of rationality (social, historical, cultural and other conditionality). In the real world of imperfect information, utilising even emotions may seem very rational and “economical”. Reducing society functioning to mere economic principles denies the interdisciplinarity; in this logic we can see origins of many practical attitudes – starting from regarding education system, health system or ecology as non-productive “icing on the cake”. Criticism is often aimed at excessive “economism”, escalated individualism and egoism augmented by the neoliberal form of globalisation with the creation of individualised global networks, often without any regulation, responsibility or control (Sirůček, 2002; Sirůček & Džbáňková, 2006).

Some aspects of traditional rationality are disputed by game theory. Economics of welfare points at situations when optimisation on the microeconomical level (in the spirit of maximising own profit or individuals’ welfare) does not always necessarily lead to optimal results on the macroeconomic level (e.g. to maximisation of public welfare). Psychologists also raise reservations to homo oeconomicus: in spite of interpretations that Freudian psychoanalysis is based on the selfish nature of man (altruism is regarded as “enlightened selfishness”) modern psychologists emphasise quite often the evolutionary importance of altruism that is necessary for the survival of mankind (F. Koukolík), e.g. when taking care of children. Psychologists, physicians and biologists speak about restricted rationality and actual acting often directed against maximising one’s own short-term profit and draw attention to the fact that the human ability to learn may ironically be a blind alley.

When criticising the rationality of homo oeconomicus we can provide many other examples from different branches of science including economics. Rather specific Austrian economics emphasises the activity of economic man. Austrians and Neo-Austrians do not operate with perfect information (F. A. Hayek), unchanging preferences or static conception of balance, but they accentuate dynamics, markets (and competition) perceived as processes of “learning and discovering”; they consider individual decision making an act of free will within a framework of an uncertain context. Keynes builds his ideas on the principles of economic rationality, but in the context of historic time, fundamental uncertainty, etc. However, much of this has been abandoned by “synthesising” Neo-Keynesians. Whereas in neoclassicism rationality implies re-establishing equilibrium while fully using all sources, Keynes believes that equilibrium is achieved when the sources remain unused. The profit

6 A. C. Pigou and others – basis for the standard theory of market failures.
7 Entrepreneur is a driving force driven by the motive for profit – creativity and innovation (L. E. Mises and others. and J. A. Schumpeter).
motive is aimed at accumulation of wealth. In his works, Keynes also considers entrepreneurs’ motives in broader extent and not only as exclusively economic interests, etc.

Institutional\textsuperscript{8} economists strive for more complex grasping of reality including the integration of cultural, political or psychological and other aspects. They refuse reductionism, prefer collectivistic solutions and empirical inductive approaches, work with more realistic models of rationality. Also French sociological school headed by F. Perroux calls for the synthesis of economics and sociology, for structural method and interdisciplinary dynamic theory and points out the primary importance of human factor.

It is not only the neoclassical ahistorical model of man that is criticised by another alternative approach – Post-Keynesian economics, which operates with an alternative new Keynesian paradigm (A. S. Eichner, J. A. Kregel), however, it has not become a more generally accepted alternative to the predominant neoclassicism, at least not yet. Similarly to institutionalists, Post-Keynesians point out the influence of the environment and the fact that individuals act in their own interest, but these interests differ from place to place, in time or by the method used.

Nonstandard approaches are often based on different theoretical-methodological fundaments and ideological framework (see methodological collectivism, methodological or critical realism, critique of liberal, too individualistic fundaments, standard economics, etc.) However, they respect that human behaviour is predetermined by the socio-cultural environment; economic activities take place in the context of fundamental (and non-mathematisable) uncertainty and thoughts are developed in historical context. Marxists operate with social determination (man as an intersection of social relations). Emphasis is often laid on the development of cooperative potential of man and the whole society, e.g. by enforcing various participation forms of democracy or by preparing the ground for autonomy.

Theoretical discussions about the concept of man and rationality, including reflections on social rationality, have practical implications. There is a call for shifting the paradigm away from the profit principle. A possible solution might be to base the society on autonomous and participation structures (thus counterbalancing parliamentary democracy). What is considered desirable, is the arrival of the new social and economic paradigm, in Czech called “5S” (principles of cooperation, solidarity, self-government, self-awareness, self-restricting). According to A. Etzioni, the characteristic feature of the prevailing paradigm is excessive utilitarism, rationalism and individualism. Economic behaviour is

\textsuperscript{8} T. B. Veblen, D. C. North, K. Galbraith
always co-determined by ethical aspects. He proposes deontological social science, or new
deontological\(^9\) paradigm to replace the one-dimensional *homo oeconomicus* (economic
theories built on the egoism of “Me”). This new theory is based on the “supportive
community” with a two-dimensional perspective – deontology “Me” plus “Us” and integrates
economic findings. The old egoistic and acquisitive man is to become history with the
prospect of new “non-manipulative social rationality” that actually emancipates society.
Nevertheless, the question who should initiate these changes remains open. (Etzioni, 1995;
Sirůček, 2002; Sirůček & Džbánková, 2006).

2 **Male and Female World**

In prehistoric matriarchal society of hunters-gatherers and in early antiquity a woman –
mother stood at the core of the family. The development of militarism, crafts and trade
together with society differentiation according to property caused that women started to be
gradually excluded from important areas (of public life).

The success of first (patriarchal) states was conditioned by centralised powers actively
influencing the society and was further supported by the formation of masculine philosophy,
which rationalised the new order. The original features of patriarchal society were the central
position of the father-son relation, god seen as a loving and caring father and woman’s
submission to the man. Historically, the female principle was considered inferior, linked to
private affairs, nature, matter, body, intuition, senses and passions and irrationality. By
contrast, the male principle was linked to public affairs, conceptual and logical thinking,
culture, politics and rationality.

2.1 **Women vs. Men – Biological and Other Differences**

There are obvious sexual differences between a man and a woman (sexually dimorphous traits
and features) in appearance, behaviour and abilities. But much of what makes us either
women or men is influenced by culture. Our biological gender is given at the moment when
male and female gametes meet. Human society is divided according to biological gender into
men and women. On this basis, the society ascribes them certain characteristic features and
behavioural patterns typical for men and women (creating gender categories, or psychosocial
gender). We learn our gender roles in the socialisation process, during which we are
influenced by many social factors (education in family or at school, media and others).
However, deep-rooted social stereotypes only support developing typically female

\(^9\) deon = binding duty
(emotionality, sympathy, thoughtfulness) or male traits (aggressiveness, ambitiousness, rationality, etc.). Although the system of education for man and woman is the same in developed countries (Kaňková, 2010).

2.2 Do Women Think Differently than Men?

Experience and scientific research prove there are differences between male and female thinking. What are they? Thinking is a part of the cognitive process. The first component of the cognitive process is sensory experience that we obtain through perception. We notice slight differences in perception abilities given by evolution. Senses provide our mind with materials for the next phase of the cognition process, i.e. thinking. When we think we process information — stimuli (external and internal). An important function of the brain is its ability to filtrate information. This process is influenced by systems of previous experience, concepts, plans, expectations and other aspects linked to the abstraction of value ladder that are hard to express by words and they have the form of dispositions (endocept, personality fund), unique for each individual (Cejpek, 2006, p. 18). Playing gender roles together with pressures to adhere to them affect endocept changes. Women are pushed to the roles of the less intellectually and technically skilful ones.

Are there anatomical and functional differences between a male and female brain? The answer is yes. According to many scientists, sexual dimorphism of the brain is caused by sex hormones that influence brain structure differentiation in prenatal development. From the anatomic perspective, the male brain is bigger than the female brain; the number and density of neurones is higher in male brain. However, nerve cells are more interconnected in the female brain. Dimorphism is also demonstrated in the case of hypothalamus and the *corpus callosum* connecting the two hemispheres. “Many researchers found this area to be stronger in men than in women, which led to a conclusion that the interhemispheric exchange is more intense in a typically female brain.” (Goldberg, 2004, p. 102). There are no differences in intelligence, which is today tested especially on general and verbal logic. When it comes to specific cognitive functions, men are often said to have better some of the spatial abilities, while women are suggested to be better at certain language tasks. Mathematic thinking is considered to be a controversial area. Generally speaking, the differences have started

10 Women, the “gatherers”, have generally more developed senses (better smell, taste, hearing, more developed haptics (touch). Men, the “hunters”, are better at recognising where a sound is coming from. Sight is developed to the same level in both sexes with certain particularities. Men have better distance estimation and spatial orientation, women are better at distinguishing colours (Günterová, 2009).
becoming less distinct recently, which agrees with theories that see their origins in culture. Simon Baron-Cohen (2002) believes that being a man or a woman is not unconditionally necessary for “male” or “female” brain functioning. Empathising (female) and systematising (male) brains are two polarities between which there is a continuum. Neurosciences do not provide unambiguous evidence about diametrically opposite differences between genders that would prove biological predetermination of lower potential in these areas. Women are probably predetermined slightly more by culture than by biology.

3 Homo Oeconomicus: A Man or Woman?

The question whether homo oeconomicus is rather a man or woman can be answered in the framework of feministic critique of standard economics, which criticises the homo oeconomicus model for being timeless and general. Isolated economic man can only express the intricate social relations through his preferences. It reduces the fellows he lives with and the environment to a mere object of an egoistic individual’s choice (Mies & Shiva, 1993, p. 223). Homo oeconomicus represents typically male values. Rationality, autonomy, maximisation and ahistoricity are in contrast with the values that are usually sterotypically considered to be female: feeling, interdependence, sharing, modesty and belonging to the family history. “Female” qualities in science are missing, which results in: excessive use of “hard” mathematical methods in economics, low number of female economists and naturally lack of some topics that are hard to quantify, e.g. housework and taking care of family are invisible for economists (Horký, 2011; Sirůček, 2012).

3.1 Feministic Criticism and Feministic Economics

Feminism criticises the concept of woman as an irrational being driven by emotions that is excluded from rational areas of human activity. It promotes more women in science, research and technical fields and it questions their actual gender neutrality arguing with “uneven representation”. Due to cultural (socialisation) and natural (maternity) influences, women have different life experience, which may affect e.g. their interests and selection of research topics. The objectivity of science and research is relativised by e.g. the fact that it was the man who was considered to be a universal representative of a human (Diekman, et al, 2010; Peters, 2012; Fine, 2013).

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11 Promoting gender equality is a program of feminism as a social movement.
Feministic economics is sometimes mentioned when searching for the “economics for the 21st century”. “The biggest challenge for feminist economists is to help overcome false dichotomies between *homo oeconomicus* and *femina caritativa*, between the market and privacy, a dichotomy that is in itself a consequence of distorted thinking of the discipline dominated by men” (Horký, 2011, p. 334, with references to other resources). Female perspective and experience are to lead through creative destruction to enriching and developing economics, making the models more realistic and providing a more complex view of reality, while taking into account the aspects that neoclassical economics (still predominant) overlooks (or fails to see). So called feminist economics may inspire when thinking of the current crises with the aim of achieving a more balanced and sustainable economy or society (Sirůček, 2012).

**Conclusion**

The current global society faces many problems that may, due to their nature, have fatal consequences for mankind. Growth-promoting orientation and consumerism of the rich North are in sharp contrast with poverty and lack of bare necessities of live in countries of the poor South. When searching for an acceptable value mode, rationality undoubtedly plays its part (although it would be wrong to overestimate it). Forming a consensus when it comes to future orientation (preferences, actions) is a prerequisite of success. The role of rationality is that it will answer existential questions about the current state of the world and what implications it has for man (what to do and what to renounce). However, it is the politics that decides about preferences and is thus most responsible for what technological reality (meaning the selection processes) will eventually look like (Kohák, 2008).

Replacing the traditional paradigm of human superiority to nature seems to be the solution to finding a balance between nature and culture. By establishing a new rational paradigm, rationality may find its new raison d’être resulting from the context of our present, worries and hopes that we relate with the future. One of possible ways how to solve social problems is engaging the female perspective and experience for the purpose of environment protection, in science and decision making processes and overall participation in culture formation and redefining the world (ecofeminism). By rectifying the relation between nature and culture, the man and the woman, we may succeed at achieving total transformation of our society and thus the environment we are living in.
Acknowledgment

This paper was created with the long-term institutional support for the conceptual development research of organization by the research project of Faculty of Business Administration, University of Economics, Prague called Competitiveness: VŠE IP 300040.

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