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CULTURE AND THE PARADIGM OF MAINSTREAM ECONOMICS

Summary: Arguments are provided in support of the thesis that economics should formulate predictive conclusions, as one of the criteria for theory choice (according to T.S. Kuhn). To satisfy this requirement, the paradigm of mainstream economics should be supplemented with methodological holism, which: accounts for historical and cultural setting of economic behaviours, both on individual and social group level, is complementary (as opposed to substitutive) to methodological individualism, does not disrupt the principles of political and economic freedom, the right of free choice nor the principles of democracy.

Keywords: culture, paradigm, mainstream economics, methodological individualism, methodological holism.

1. Introduction

The turn of the century saw an outburst of disputes regarding the perspectives of development of economic studies as well as methodological aspects of the field. Similar discussions are present in most other scientific areas since, as aptly put by Andrzej Wojtyna, the main task of methodology is to address the following fundamental questions:

1. What methods and what criteria should be used to compare and juxtapose different theories?
2. How to judge whether and wherefore one theory should be regarded better than another?
3. What is the nature of the knowledge accumulation process?¹

Most experts agree that the so-called mainstream economics includes classical and neoclassical economics, Keynesism and post-Keynesism, New Classical Economics and supply-side economics. Other schools of economic studies, typically placed outside the mainstream economics, comprise institutionalism (stemming from old and new historical schools and the economic history school), neo-institutionalism, New Institutional Economics and a variety of modern alternative economics currents.

¹ A. Wojtyna, *Ewolucja keynesizmu, a główny nurt ekonomii*, Wydawnictwo Naukowe PWN, Warszawa 2000, p. 11.

The structural model of mainstream economics paradigm does not embrace the impact of **culture** on economic growth and development, a trend widely and objectively discussed among the proponents of modern economic schools outside the main stream of economic studies. One important problem arising in this context is: do we face the need to replace the existing paradigm of mainstream economics? Or is there a way to introduce modifications to the paradigm to account for the impact of culture on modern economy?

This is the fundamental research problem addressed here. The aim of this paper is to postulate an answer to this question.

2. Social system: economy – politics – culture

T. Parsons observes that social system, from sociological viewpoint, refers to “every social entity” that may be isolated from the external environment (surrounding), regardless of the scale of influence or degree of complexity in its internal structure².

Society as a whole, contained within the bounds of national borders, characterized in its entirety by certain common features and fulfilling certain functions, *raison d'être* and interests represents a **social system**, separated into further systems of a lower order, i.e. **subsystems** of:

- 1) economy,
- 2) politics,
- 3) culture³.

The above subsystems are addressed by three separate areas of study: economy being the subject of economics, politics – of political science, and culture – of sociology. Relations between the subsystems of economy and politics are the focus of economics, new political economy, public choice theory, theory of rational expectations and social cost benefit analysis⁴. Relationships between politics and culture are the subject of studies in the fields of both political science and sociology, which may sometimes result in further specialization of scientific categories, such as political culture, culture of social communication process, and so on⁵. The last set of relationships, namely the relations between economy and culture, has not yet been addressed in professional literature, in this author's opinion, mainly due to the fact that cultural influence on economic growth is a factor that cannot be readily measured and quantified.

It seems, however, that the problem of relations between the subsystems of culture and economy is predominantly a result of limitations present in the current

² T. Parsons, *The Social System*, Glencoe – Illinois 1964.

³ *Ibidem*.

⁴ See: M. Noga, *Szkice z makroekonomii*, CeDeWu.PL, Warszawa 2009, p. 266.

⁵ T. Homa, *Oblicza kultury politycznej – kultura społecznego procesu komunikacji*, [in:] *Człowiek i społeczeństwo wobec wyzwań współczesności. Aspekty kulturowe i społeczne*, red. D. Gizicka, W. Gizicki, Wyd. Adam Marszałek, Toruń 2008, p. 90-100.

paradigm of mainstream economics, particularly in the view that *homo oeconomicus* participates in economic activities under the following assumptions:

- a) unlimited and free access to information,
- b) ordered set of preferences,
- c) economic calculation based on maximization of pleasure and minimization of distress,
- d) individual choice based on personal interest.

This approach to defining economic activities of *homo oeconomicus*, described by methodological individualism, does not account for historical nor cultural context. In the light of the above considerations, one important question arises: can we safely analyze human economic activities, such as rational management, with no regard to the context of history and culture? In this author's view, before this question is addressed, one needs to produce a viable analysis of the category of culture, followed by careful analysis of the present paradigm of mainstream economics.

3. Culture as scientific category. The impact of culture on economy

The notion of "culture" is very broad and defined in professional literature in a number of ways. In the 2009 edition of Polish Dictionary of Foreign Words and Phrases, the term "culture" is derived from Latin *cultura* (land cultivation), with modern denotation defined as "the sum of human achievements, a heritage of material and spiritual advancements produced in the course of historical development or – in a narrow sense – within the bounds of a single historical period"⁶.

The first historical reference to culture in a sense departing from the original meaning of 'land cultivation' was made by the eminent Roman orator Cicero.

An interesting definition of culture was postulated in 1871 by social anthropologist Edward Burnett Tylor: "Culture or civilization, taken in its wide ethnographic sense, is that complex whole which includes knowledge, belief, art, morals, law, custom, and any other capabilities and habits acquired by man as a member of society"⁷.

In 1929, Heinrich Rickert wrote: "Those sciences (cultural sciences, *Kulturwissenschaft*) are not concerned with experiences of individuals (these are the subject of psychology, which in a sense may also be regarded as natural science), but with matters that are of **significance** to them; matters that are in tangible relation to **values** that do not exist in any empirical, physical nor psychological sense of the term 'existence', but are still absolutely binding, by offering landmarks for both human beings that act in history, and for the historians who strive to describe and understand such acts"⁸.

⁶ M. Tytuła, J. Okarma, *Słownik wyrazów obcych*, Park Edukacja, Warszawa 2009, p. 134.

⁷ See: J. Szacki, *Historia myśli socjologicznej*, Wydanie nowe, Wydawnictwo Naukowe PWN, Warszawa 2004, p. 306.

⁸ *Ibidem*, p. 429.

In this author's view, based on the rich collection of definitions of culture presented in professional literature, culture may be described as: **the whole of material and spiritual output of humanity, collected, preserved and enriched throughout history, and passed from generation to generation**⁹.

In this approach, culture exerts a strong influence on social and economic development. This influence is studied and examined by sociologists, political science specialists and economists, but – so far – there is no suitable instrument to accurately measure the impact of culture on economy. The Human Development Index (HDI) postulated by the United Nations, based on average life expectancy, level of education and Gross Domestic Product per capita (in US dollars) is surely a better gauge of cultural influence on economy than GDP value alone. However, in generally accepted opinion, HDI does not cover all aspects of cultural impact on economy. Interesting research on the subject is reported by the Harvard University¹⁰. Also several Polish research centres examine cultural factors of economic development¹¹.

It is worth noting in this context that mainstream economic studies display two opposing views on cultural influence in economy:

- according to **the first view**, properly designed economic policy, implemented with due care and consistency, should result in identical development across different nations, regardless of cultural setting; this view, postulated by liberalists, holds that political forces are able to transform culture – therefore, it is the politics, and not the culture itself, that decides on socio-economic development,
- **the second view**, well-represented among the conservative schools, postulates that the success of socio-economic development is based on culture, and not politics as such, since economic activities are always set in a specific cultural context, and culture is a factor of strong influence on economy¹².

The first view is widely held in most developed countries of the Western hemisphere (including Europe and the USA), while the second view generally prevails in many countries of the Asian region.

According to Tu Wei-Ming, certain values typical of the Western cultures, such as:

- instrumental rationality,
- freedom,
- authority awareness,
- legal procedures,
- individualism,

⁹ M. Noga, *Szkice...*, p. 266.

¹⁰ L.E. Harrison, *Culture Matters*, Harvard University 2000.

¹¹ See: *Perspektywy rozwoju sektora kultury w Polsce*, red. R. Borowiecki, Wyd. Oficyny Ekonomicznej, Kraków 2005; E. Bogalska-Martin, *Wprowadzenie do teorii kulturowych uwarunkowań rozwoju gospodarczego*, [in:] *Ekonomia rozwoju*, red. R. Piasecki, PWE, Warszawa 2007.

¹² M. Noga, *Szkice...*, p. 267.

as elements of pro-development culture, **do not exert too strong** influence on economy, while **Asian value systems**, derived mainly from Confucianism, such as:

- ritual,
- distributive justice,
- sense of duty,
- shared spirituality,
- family bonds,
- group orientation,

as elements of pro-development culture, have a strong impact on economy of many Asian countries¹³.

The factor of religion, as an element of culture, also influences the economy. This argument is particularly evident in the works of Max Weber, with his view that the rapid development of capitalism was a result of protestant values, with work elevated to the rank of **ethos** and perceived as a precondition of eternal salvation¹⁴. According to Max Weber, not only the ethos of work, but the whole of protestant ethical system was the fundament of capitalism, a sort of spiritual guidance stimulating the economic development of protestant countries. This argument led to the conclusion that the impact of culture on economy was indeed strong, at least in the initial period of capitalist development.

Such instruments as the macroeconomic GDP or HDI offer only indirect methods of measuring the impact of culture on economy. To precisely gauge this impact, in this author's view, one can reach for the taxonomic measure of development.

Taxonomic measures of development are synthetic variables used to replace standard description of research objects based on diagnostic features with a single aggregated value¹⁵. Taxonomic instruments can be employed in numerical representation of qualitative phenomena, such as, in this case, the culture and its impact on economy. In 1996, this author used taxonomic methods to examine the impact of natural environment and cross-generational justice on social prosperity. The instrument used in the research was TMDE (taxonomic measure of prosperity related to condition and quality of natural environment)¹⁶.

The TMDE measure was defined in three variants:

$$I \quad TMDE = \sum_{K=1}^K Z_{ik}$$

$$II \quad TMDE = 1 / K \sum_{K=1}^K Z_{ik}$$

¹³ Tu Wei-Ming, *Wielkość nowoczesności*, [in:] *Kultura ma znaczenie*, red. L.E. Harrison, S. Huntington, Poznań-Kraków 2004.

¹⁴ M. Weber, *Etyka protestancka a duch kapitalizmu*, Lublin 1994.

¹⁵ E. Nowak, *Metody taksonomiczne w klasyfikacji obiektów społeczno-gospodarczych*, PWE, Warszawa 1990.

¹⁶ M. Noga, *Spółczesność – gospodarka – środowisko*, Wyd. WSB, Poznań 1996.

$$\text{III } TMDE = \sum_{k=1}^K W_k Z_{ik}$$

where: Z – normalized diagnostic variables with different vectors of influence on the subject under study. The variables can take the form of reinforcing, reducing or nominal stimuli,

W – weighs of diagnostic variables.

In this approach, $TMDE$ measure is a function of

$$TMDE = f(z_1, x_2, \dots, x_k),$$

which allows for the transformation of observation matrix x into vector z with coordinates $[N \times 1]$, representing already normalized variables (features) that describe social prosperity.

The interpretation of the measure of social prosperity related to the condition and quality of natural environment, as postulated by this author in 1996, presents as follows: the higher the value of $TMDE$ measure, the higher is the level of social prosperity in a society under study. $TMDE$ may be compared across time and space, i.e. in relation to countries, regions, local administration boundaries, etc.

In this paper, the author introduces modifications to the $TMDE$ measure of prosperity, to relate it not only to condition and quality of natural environment, but also to **any available diagnostic features in the area of culture**. Naturally, the new set of variables will be expressed in adequate measures and normalized or standardized in accordance with the construct of taxonomic measures. Assuming that different countries are characterized by different sets of cultural factors, each with different ranking and level of influence on economy and social life, it seems that the third variant of $TMDE$ formula will best suit the purpose of this research, with separate weighs (w) for every diagnostic variable used. The resulting modified measure will henceforth be referred to as $TMDEK$, i.e. taxonomic measure of social prosperity related to the condition and quality of natural environment, cross-generational social justice and any factors of cultural character that may influence economy and social life. In this approach, the $TMDEK$ may be expressed as follows:

$$TMDEK = \sum_{k=1}^K W_k Z_{ik}$$

where: W – weighs of individual diagnostic variables,

Z – normalized (or standardized) diagnostic variables in the realm of culture and natural environment, as well as all known indexes describing social prosperity, such as GDP , consumption of food products and commodities, commodity saturation of households, and so on.

For obvious reasons, a definite list of cultural indices and their respective weighs in relation to their impact on socio-economic development should be prepared arbitrarily by an international team of experts, under the auspices of a competent international body, e.g. UNESCO.

4. Paradigm of mainstream economics and modifications thereof

Paradigm is a broad concept, covering practically all aspects of theoretical structure, i.e. the underlying outlook, theory choice principles, theoretical framework for problem analysis, as well as techniques and instruments for empirical verification of prognoses and hypotheses¹⁷. Thomas Kuhn postulates, that theory choice principles should involve a set of such features as:

- logical consistency,
- productivity (fruitfulness),
- prognostic accuracy,
- broad scope,
- simplicity¹⁸.

The paradigm of mainstream economics adopts a neoclassical view on economic science as a study of human behaviours resulting from limited choice of resources available for alternative goals that may change with time. This logical choice is made under the assumed free access to perfect information and based on methodological individualism.

In this perspective, two aspects of methodological individualism are taken into account:

1) the assumption stemmed from classical economic science that individuals undertaking economic activities are motivated mainly by own best interest (*homo oeconomicus*),

2) the assumption that all economic phenomena and processes, together with corresponding economic categories, can ultimately be derived (deduced) from the economic behaviour of individuals, or microeconomic entities¹⁹.

This is a typically neoclassical approach to individual behaviour, which may be defined in categories of maximization vs. minimization of particular objective functions in particular circumstances and under initial assumption that the individual is aware of own preferences, as well as able to define, measure, evaluate and order those preferences. In this manner – according to neoclassical economic science – a human being is rational in his/her actions.

The mainstream economics paradigm in the sense described above has already, in this author's view, 'outlived' the requirements dictated by the new concept of human integration with natural biosphere. For this reason, economic sciences are in urgent need of a paradigm shift. The above reference to the new concept of integration is based on the following notions:

¹⁷ A. Wojtyna, *Ewolucja...*, p. 16.

¹⁸ T.S. Kuhn, *Struktura rewolucji naukowych*, PWN, Warszawa 1968.

¹⁹ M. Noga, *Makroekonomia*, 2nd ed., Wyd. Uniwersytetu Ekonomicznego, Wrocław 2009, p. 11.

1) the fundamental problems of human existence are no longer generated by his/her activities and choices in the sphere of economy alone, but at the junction of society, economy and environment;

2) the concept of scarcity has departed from relations defined in neoclassical economics – nowadays, scarcity relates to environmental capital (natural resources), and not man-made capital;

3) the concept of perfect information in economy has been reinterpreted by new classical economics²⁰.

The considerations presented thus far and related to interaction between culture and economy show that the present paradigm of mainstream economics should at least be extended to embrace the cultural surrounding of modern economic activities of man. Both Neoinstitutionalism and New Institutional Economics (NIE) emphasize the notion that human beings always operate in a distinct historical and cultural setting. There is, however, one important difference between the two trends: proponents of New Institutional Economics maintain that the paradigm of economic sciences should be based on methodological individualism, while neoinstitutionalists (J.K. Galbraith, G. Myrdal) are more inclined to supplement the mainstream paradigm with methodological holism.

As aptly observed by J. Stacewicz, the paradigm of mainstream economics postulates that reality be studied using analytical and intellectual model, describing the economy in terms of static, stationary and structural approach that leads to the reproduction of synchronic network of relations between fundamental elements, i.e. a sort of ‘photorealistic’ replication of reality in given moments in time. Such an approach should be replaced by a synthetic and intuitive model, characterized by interdisciplinary view on the process of cognition, with dynamic, processual and processive representation of diachronic network of relations between processes, i.e. a sort of ‘holographic’ replica of reality obtained through any single fragment thereof²¹.

The second approach allows for scientific observation of economic behaviour not only in respect to single individuals, but also whole social groups. On the other hand, it also offers potential for analytical study of rationality of an individual’s economic activities in certain historical and cultural context. This only proves that the existing paradigm of mainstream economics should be supplemented not only with methodological individualism, but also with methodological holism, with latter complementing rather than substituting the former. By employing the chaos theory, activities of individuals can be studied – per analogy with quantum world phenomena – in terms of an adaptive and spiral process of community behaviours. Since the process by itself is isomorphic, it is also predictable. This conforms with the chaos

²⁰ M. Noga, *Szkice...*, p. 286.

²¹ J. Stacewicz, *Ekonomia a rzeczywistość*, [in:] *Problemy ekonomii i polityki rozwoju*, red. J. Stacewicz, Wydawnictwo SGH w Warszawie, Warszawa 2005.

theory and its new perspective on order and disorder, since both those features are closely correlated and perceived as two aspects of the same phenomenon. As such, they are not mutually exclusive, which leads us to an interesting conclusion: uncertainty of behaviours on individual level correlates with predictability of behaviours on the level of community or social group. Consequently, in terms of systemic rationality, irrationality of individual behaviours does not necessarily produce uncertainty in respect to the whole system²².

This approach may be used, for example, to the study of stock exchange behaviours. Moreover, neoinstitutionalism and New Institutional Economics provide evidence to the thesis that social prosperity stems not only from economy, but also from social capital, intellectual capital, interpersonal relations and widely accepted institutions of social and economic order. These aspects should also be included in the modified paradigm of mainstream economics.

5. Conclusion

The analysis of relations between culture and economy presented herein allows to form the following conclusions:

1. The paradigm of mainstream economics 'has had its day' and should be modified. This author is not a proponent of an absolute paradigm shift and believes that the paradigm should be modified, and not replaced.

2. Economic activities of an individual are set in a certain cultural and historical context, therefore they cannot be analyzed in isolation from activities of other people. Consequently, methodological individualism alone is not enough to describe economic reality; it should be complemented by methodological holism. This author believes that the deliberations presented herein on adaptive behaviours of individuals and groups as a manifestation of rationality, in the face of problematic use of optimization rules, are a proof that methodological holism is complementary to methodological individualism. Methodological holism does not in any way disrupt individual freedom, the right of free choice, the principles of democracy, and so on.

3. Impact of culture on economy is measurable and quantifiable; for practical application, this author postulates the use of proprietary instrument of taxonomic measure of prosperity related to ecology and culture (TMDEK).

4. In relation to the above, the paradigm of mainstream economics should be extended to embrace methodological holism as complementary to methodological individualism. Only then the economic sciences will be able to address economic effects of such aspects as the condition and quality of natural environment, culture, social capital, as well as formulate predictive conclusions in this respect.

²² J. Unold, *Dynamika systemu informacyjnego a racjonalność adaptacyjna. Teoretyczno-metodologiczne podstawy nowego ujęcia racjonalności*, Wyd. Akademii Ekonomicznej, Wrocław 2003.

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KULTURA A PARADYGMAT JAKO GŁÓWNY NURT W EKONOMII

Streszczenie: W artykule autor dowodzi, że ekonomia jako nauka musi formułować predykcyjne wnioski, co jest warunkiem dobrej teorii T.S. Kuhna. Aby do tego doprowadzić, paradygmat ekonomii głównego nurtu musi być rozszerzony o metodologiczny holizm, który: uwzględnia historyczne i kulturowe otoczenie gospodarującego człowieka i grupy społecznej, jest komplementarny (a nie substytucyjny) w stosunku do indywidualizmu metodologicznego, nie burzy wolności politycznej i ekonomicznej jednostki, swobodnego wyboru i zasad demokracji.