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**THE CORE–PERIPHERY RELATIONS AND CONNECTIONS
IN SOCIAL GEOGRAPHY:
HISTORIOGRAPHY, CONCEPTS, THEORIES**

**RELACJE CENTRUM–PERYFERIE W GEOGRAFII SPOŁECZNEJ:
HISTORIOGRAFIA, KONCEPCJE, TEORIE**

Zarys treści: To determine the relationship: the center–peripheries is an important issue among others in the social geography. The issue of the impact of the central site on the space in which it is located has been the subject of many discussions, on the basis of which the new theories were created. The article concerns the proposals of delimitation of geographical space, serving the designation of areas of the central and peripheral areas.

Słowa kluczowe: centrum, peryferie, geografia społeczna, historiografia, teorie
Key words: the center, peripheries, social geography, historiography, theories

Introduction

Defining of the place and role of a territory in the spatial organization of society acquires an urgent character in the context of a dynamic multi-social reconstruction and reformation of all social and economic processes. Historical experience shows an uneven social and economic development of the countries and regions of various sizes along with the objective existence of geographical contrasts such as “core–periphery”. At the same time there exists quite definite universal cycle of events that influences over emergence, strengthening or grading of these contrasts. The searching of patterns of spatial organization of society from the point of view of core–periphery relations and connections, their staging and cycling belongs to one of the main aims of socio-geographical research today.

The problems of the relationship and interactions between the center and periphery attract considerable attention of the researchers, as far as for the first time Ukraine faces the problems of territorial and economic differentiation and regional

fairness that are not related to the planned figures and ideological orientations, regulating the relationship between the various administrative and territorial units of different ranks.

Generalization and systematization, analytical review of the works connected with Centro-peripheral relations will lead to a reasonable opportunity to pursue researching of the systems such as the “core–periphery”.

Presupposition

The basic theories and concepts of the relationship between the core and periphery are analyzed foreign authors – Hägerstrand (1985), Berry and Pred (1961), Perloff (1957), Prebisch (1992), Friedmann (1979), Perroux (1950), Wallerstein (1974) and presented in the works of Russian, Ukrainian – Gritsay and Treyvish (1990), Rodoman (2007), Myronenko (2005), Shevchenko (2006), Lozyns'kyi (2012), Pylypenko (2006, 2008, 2009, 2013), Shablii and Sohotskaya (2012).

The main aims of the article

The major target of this research is the generalization and systematization of main scientific, analytical review of works devoted to core–periphery relations and determination of the basis of perspective directions of research in this area.

The main data of the research

The origin and evolution of core–periphery systems are the result of the development of society, whereas the positional, natural environmental, social and economic backgrounds of human activity strongly vary: a more favorable combination of them courses intense and diversified activity which leads to appearance of the so-called “center”, and, of course, it's antipode – periphery. A lot of significant researches in economics, geography, political science, history devoted to the issue of geospace. Among them are scientific studies connected with the general problems of spatial development, its analysis, modeling and forecasting, such as the works of Haggett (1968), Topchiyev (2005), Baklanov (1978), Pistun, Mezentsev and Torlo (2004), Granberg (2000) and others.

The research of any system, such as “core–periphery”, is emerged and developed in the interdisciplinary field of geography, geo economics and geopolitics. For the first time the concept of “core (center)” and “periphery” appeared in the researching of geospatial heterogeneity as the standard theories, which are considered to be worked out by the standard authors: von Thünen (1826), Weber (1909) and their followers Lösch (1959) and Christaller (1933).

The understanding of the priority of this problem got gradual establishment in the Soviet science, mainly since the economics and geography traditionally focused on

the study of regional interdependencies and contrasts. The analysis of phenomena related to the geospace is highlighted in Nymmik's (1976), Zubarevich's (2001) researches. The schemes of the leading types of historical evolution of industrial concentration belong to Mayyerhoiz (1987). In the Soviet literature there is an attempt of periodization the Regional Development made by Goltz (1986), who speaks about the evolution of the types of territorial communities depending on the development of core-peripheral relations in the society.

Since the middle of twentieth century, the use of such concepts as "core (center)", "periphery", "searching of measures of center and periphery", "researching of core-peripheral relations and connections" are represented almost in every study connected with the searching of regional differences at all levels – local, regional, national, global. Mostly the content of relationship "core-periphery" is associated with the uneven distribution of territorial management functions and the reconstruction of innovations, but in general it is referred to domestic contrasts of any origin, as far as each phenomenon and each process has its center and periphery that are determined by the level of the phenomenon (more developed center and less developed periphery), or by a place of origin (the center as a place of origin phenomenon – "donor", and the periphery as an "acceptor" (acceptor is the object that receives anything from another object)). However, it is worth noticing that the most of studies still focus on the identification and determination of centers, measures of centrality, where periphery is considered to be just an application center.

The relations in the system of "center-regions", "center-periphery" are fundamentally described in the works of Gritsay and Treyvish (1990), Friedmann J., Wallerstein I., etc. Analyzing the relations of central semiperipheral and peripheral areas of Europe, Gritsay and Treyvish (1990) concluded that these types of areas are characterized by a number of specific structural and dynamic characteristics. The model "center-periphery" according to Friedman (1979) (this researcher is often called a standard author of the concept "core-periphery") – is a model of regional development, which involves the interaction of central and peripheral areas with the dominance of center. The model "center-periphery" implies the global economy which is characterized by structured relationship between economic centers that use economic surplus in sub-peripheral countries by using political, economic, social and administrative advantages. One of the important factors here is the disparity between the level of salary in center and periphery, which leads to utility for a capitalist enterprise to place the part or the whole production to an underdeveloped regions.

Looking at center-peripheral relations within the national economy, George Friedman identifies four stages of growing centers' formation (which he calls nuclei) in the country:

- 1) Existence of large number of local nuclei that provide a little influence on the surrounding area;
- 2) Appearance of one or more powerful nucleus that forms a pole of growth, which leads to the formation of a large periphery;
- 3) Development of several other nuclei, leading to the formation of polycentric structure of poles of growth;
- 4) Nuclear fusion into the urban polyareal structure with the powerful periphery.

The issue of dynamic aspects of regional development and relations that arise and reconstruct evolutionarily between center and periphery, was developed in domestic and foreign scholar's works. Among the researchers of geographic forms of innovations' diffusion, who caused the reproduction and formation of peripheries, one can see a number of well-known Western scholars-regionalist – Schumpeter (1982), Hägerstrand (1985) (who was the founder of spatial model of this process). It should be noted, that the theories, concepts, models presented in their scientific papers, are deeply interconnected with the studies of Perroux (1950), Boudeville (1966), Lasuen (1969), who focused their attention on structuring the geospace and its hierarchy as the result of polarization of the processes and conditions associated with the distribution of certain objects, mostly in the space.

Among the models of settlements' location in which attention is focused on the relations appearing in the system "center–periphery", we find the so-called "ideal" model of locating the cities – a model, which target is to finding the regularities of optimal allocation of geographic objects in homogeneous space. These models include the ideal model of "central cites" by Christaller (1933), the model of "proper placement of nests" by Kolb – at Percik (2009), the model of "economic landscape" by Lösch (1959), and the model of "urban multiplier" by Lowry (2004) and others.

The model of central cites by Christaller (1933) is the theory of optimal locating of cities, according to which the ideal location of cities can only exist on infinite homogeneous plain (isotropic surface) with equal density and purchasing power of the population, with equal distribution of resources; with equal transport links and so on.

The core element of the theory by Christaller (1933) is a city, which is the center for all other settlements in the region, providing them with central products and central services. The central city supplies the areas that complement it. According to Christaller (1933), the group of identical central cities has hexagonal complementary areas. The cities, in their turns, have the correct hexagonal forms.

The model of correct placement of nests of John Kolb – at E. Percik (2009) is the model of accommodation of cities in which the optimal location of settlements presents the form of "clusters". This model highlights the following:

- Big city occupies a central position in the settlement system;
- Near the bounds of its influence the small towns are situated because of the cone of demand;
- Villages group around small towns on the periphery of their distribution areas.

In 1909 was published by A. Weber, "The pure theory of accommodation industry". As the factors affecting the placement of A. Weber considered the labor costs of raw materials and fuel resources and transportation expenses for their relocation. A. Lösch's model of economic landscape is, in fact, inherently an improved model of optimal allocation cities by W. Christaller, which uses additional factors in approaching the model to the real world. The main additional factor is common to all localities of the area: central place – is one of the most important economic centers of the country.

The model of "urban multiplier" by Lowry (2004) is a model of a city, where economic and territorial structure of a city depends on the features and specifications both of the baseline and service sectors. This model reflects their relationship and impact on the growth of population and the town land area.

The social and economic center (core) and the periphery, depended on it, can be identified at any spatial level. In modern geographical science center-peripheral development concept for the world and selected macro-regions is more worked out. However, the relation “core–periphery” is traced in a definite country and its regions quite clearly.

It should be underlined, that the theory and methodology of researching this type of relations on meso- and micro-regional levels isn't well-developed, but the need of such studies is quite significant, as the modern regional policy of Ukraine presupposes the accent on the role of gradual developing the future regional structure and population activity. At the national level providing the regional fairness is one of the strategic aims in regional development. Regional fairness is a compromise between the efficiency of national and regional economies, on the one hand, and social equity of the regions – on the other.

The territory as a landfill of development and distribution of society' productive forces are a very specific inexhaustible resource of Ukraine as for the whole country and its individual regions. The territory can be researched at different levels – global, national, regional, district, local and others. It should be mentioned, that recently a regional level becomes prioritized.

It is underlined, that the socio-geographical center is part of a region that has functional connections with its base of development (especially the periphery) and, unlike other parts of the region; it segregates by its general attractiveness, a high concentration of social processes and phenomena that are constantly getting more complicated.

As a social and geographic periphery we mention the public space where the speed of socio-geographical processes is minimal or their vector does not coincide with the vector of the nuclei of social life (which are primarily large and medium cities).

The contrasts between center and periphery are connected with the fact that the formation of technological, social and other innovations is uneven and not omnipresent. Center – is the place of their generation, peripherals – is the area of their influence. The center and the periphery are interconnected by streams of information, capital, labor etc. The pushing force that provides the development and reproduction of “center–periphery” is a qualitative transformation of the center due to the generation, application and diffusion of innovations. Constant innovation activity creates the conditions for its development within the center, providing maximum access to this information, connections, capital, resulting in having new features focused on latest technology, high-tech industries. There appear changes in qualifying and the social composition of the population. The center pushes onto the periphery the fields that do not fit the status of a nucleus that fixes the dependence of periphery on the center. The center always uses all sorts of resources from peripheral areas, which also increases territorial inequality, weakening the periphery.

The analysis of publications allows identifying the specific characteristics of relationships (connections) in the system “core–periphery”:

- 1) An existence of quantitative and qualitative (structural) gap between the center and periphery at any level. This gap is associated with asynchronical and wavy distribution of any innovation.

- 2) The dominating of pro-central tendencies of influence for the center under the periphery.
- 3) High social attraction of the core and, as a result, the concentration of social objects, processes and phenomena. In contrast, the periphery is characterized by deconcentration of typical social activities.
- 4) Within the center processes of integration is dominating, strengthening of the relationships between geographical entities and social groups. For peripherals disintegrating processes that lead to the weakening of bonds and, in some cases, to a complete isolation of structures are more inherent. Such processes lead to the formation of “peripheral” mentality, which complicates the perception of innovation and conserve the old social and geographical relations and communications.

The main distinctive reference between the center and the periphery includes:

- 1) The formation of population figures, and, above all, the rate of balance of migration;
- 2) The characteristics of population settlement (the ratio of urban and rural population, size of settlements etc.);
- 3) The general level of development and territorial concentration of social and economic activities;
- 4) The level of infrastructure development and welfare of the population.

It is emphasized that the most informative criteria of distinction between center and periphery is the net migration rate. Such a choice can be explained by understanding that migrations in their present form (essentially economic) are a “response” to the level of development of a particular area. In addition, the migration balance criteria in the analysis of regional mechanical migrations movement of the population directly correlated with ratings of social and economic development. That is why centers almost always have a positive net migration and the peripherals – negative. Other mentioned benchmarks are essentially the factors that determine the attractiveness of the area and the level of migration activity of the population.

Conclusions

The center-peripheral relations of different types in geographical space are almost axiomatic, and it allows suggesting the relevance of their research at all stages of development of the social sciences. As the analysis shows, the researching of the periphery as a part of territorial organization of the society doesn't have place yet. However, it should be underlined that the current simplified view on the periphery as a simple antipode, the application to the center is, in our opinion, erroneous, because there are a number of theoretical, methodological and practical tasks concerning peripheral development that need to be solved, especially in the context of territorial growth of inequality in Ukrainian geospatial.

Thus, we think, that the spheres of actual scientific problems of studying concept “Core–periphery” are:

- 1) What are the mechanisms of the formation and development of the peripheries of various types, levels, locations?
- 2) What are the principles and methods of parameterization, formalization and delimitation of the periphery as part of geospace?
- 3) How to plan the development of programs for peripheral areas at the macro-, meso and micro-regional levels?
- 4) How to level the contrasts between core and periphery in the context of smoothing disparities in the social development of society?

It should be noted that these issues of socio-geographical research of periphery as part of geospace can be among the most promising and further development in these directions will contribute to a better understanding of center-peripheral relations and develop constructive ways of leveling territorial divide in Ukrainian society.

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Summary

In the article, the classic and contemporary views of the geographers, on the concepts of "center–periphery" has been analyzed. The paper presents author's concept of delimitation of the "center" and "periphery" in the social geography. The specific characteristics of the relationship "center–periphery" were determined. The attempt was made to justify the weakness of the thesis considering the periphery as opposed to the center. It was recognized that one of the most important features of delimitation of geo-space, in the relationship "center–periphery" is net migration, which can be regarded as an indicator of social attractiveness of regions.