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**THE SOCIO-ECONOMIC DIFFERENTIATION
OF POPULATION: A COMPARATIVE ANALYSIS
OF RUSSIA AND EUROPE**

(to be presented as a working draft only)

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In this preliminary paper I am trying to distinguish and explain some differences in character of social and economic inequality between West and East-European societies with a special focus on Russia. More exactly, analyzing the well-known data set of the European Social Survey 2006/2007 I show that there is a far stronger degree of matching between individual occupation, education and income in better developed European countries than is observed among the post-socialist states. To emphasize this finding I also look at the differences in patterns of intergenerational mobility, according to which the post-socialist societies are far less mobile and 'meritocratic' than their Western counterparts. The main theoretical argument behind this, I suggest, is the incompatibility of modern 'capitalistic' institutions, such as private property and market, with historical and cultural contexts of development in post-socialist countries. To test this argument I develop the corresponding scale and superpose it with my empirical findings. From this point of view Russia is regarded as one of the least successful cases of transformation, since the initial conditions of its social change were less consistent with the logic of Western modernization, which stood behind the radical reforms of the 1990s, than in any other post-socialist European country.

Key words: social stratification, social inequality, comparative analysis, Russia and European countries, post-socialist societies, entropy analysis, systems of stratification.

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Introduction

Until recently most of comparative research on social inequality relied on stratification concepts developed by Western sociologists. Even the theoretical argument between their various approaches (neo-Marxism, neo-Weberianism, functionalist theories) in this case is not so important, since all of them have been developed to provide an explanation to the nature of social inequality in modern Western societies. And this is not surprising given the rather intense development of social sciences in the West and their far reaching influence in the rest of the world.

The successful development of the capitalist countries of Europe and the USA has gained a lot of sympathy in the world scientific community in favour of those modernization projects, which enunciated the Western developed model as the only best alternative. Even today the Atlantic capitalism, which relies on an institutional 'triangle' *market – private property – democracy*, is regarded as the *comme il faut* solution by most ideologists of the post-socialist transformation. Yet in spite of the reforms, which have apparently led to a social and economic collapse in many of the post-socialist states, their relative success is still evaluated in terms of convergence of their social structure with the social structure of developed societies. Moreover, the cultural and historical roots of their current institutional systems have until recently been regarded by those ideologists as minor (or completely insignificant) factors among those that determine the adaptive potential of the transforming post-socialist countries.

However, by accepting such a one-sided approach in interpreting the outcomes of post-socialist transformation to analysis of social inequality one would face a number of problems. In particular, it would raise a highly debatable issue of status inconsistencies and whether these inconsistencies tend to resolve with transformation. Other highly popular arguments are the 'middle class' problem and the problem of distinguishing 'winners' from 'losers' to determine the rate of transformation success.

On the other hand, the character of social and economic differentiation of population in some European countries of the former socialist bloc doesn't appear so marginal, if it is regarded within the framework of a different ap-

proach, which allows for historical dependence of societal change and, thus, a variety of co-existing social and economic orders that are matched to different civilizations, i.e. a *civilization approach* [Huntington 1996; Spengler 1991; Toynbee 1987; Danilevskiy 2003]. One of the attempts to conceptualize this with a special reference to the issues of social inequality is provided in [Shkaratan 2007a, b]. According to this approach a particular Eurasian civilization can be distinguished, which is essentially different from European (Atlantic) civilization with regard to its institutional structure and system of values. Within this civilization there emerged a particular system with its own rules of functioning and development, which is a parallel branch of historical evolution of the capitalist industrial society. This system can be conceptually referred to as *etacratism* (or *statism*), which has been seen as an alternative mode of production by some other scholars as well. Unlike profit-oriented capitalism, etacratism is oriented towards power maximizing: that is, improving the military and ideological capacity of the state to control and manipulate the masses [Castells 2010a].

Apparently, in such a distinct setting of social and economic relations a different system of social inequality would emerge, where the stratification hierarchy and the structure of inter-group relations would also bear a distinct flavour. The corresponding hierarchy is most likely to resemble a rigid system of relatively isolated *estates*, which originate from power ranks, rather than the hierarchy of *classes*, which originate from the general distribution of labour and property relations. This is though a relative distinction, since existing societies, which may be extensions of both, European and Eurasian, civilizations, share a similar socio-technological basis of late industrial and post-industrial (knowledge-based) economies. But virtually the technological aspect of the modern occupational structure is not so important, as far as the underlying system of social stratification is concerned. One has to consider the socioeconomic aspect of labour distribution, since it shapes socio-occupational stratification, which is commonly found in most of existing societies. On the other hand, mediated by market and the system of real inequality it serves as a source of class differentiation in Western developed countries.

In this case a possible co-existence and even an overlapping of two distinct types of stratification may occur. The intensity of the corresponding forms of stratification depends on the extent, to which a particular set of institutions is rooted in different societies that are bound to different systems of civilizations. This point of view has been clearly expressed by Vladimir Ilin, who also claims that class differentiation as a dominating form of social and economic inequal-

ity is an exclusive feature of capitalism [Ilin 2008]. The class structure, he follows, is a certain reflection of power distribution according to the logic of labour and capital markets. The forming of social classes, thus, is an integral part of a more general process of transition (return) to capitalism. On the other hand, in the so-called *etacratism* societies occupations, which serve as sub-class units in *capitalist* societies and are associated with a certain character of labour, are less distinguishable with respect to their status characteristics. That happens due to the fact that the latter to a greater extent result from the corporate nature of professional organizations, which are particularly weak in *etacratism* societies (an especially comprehensive discussion of this issue with respect to post-socialist transformation is provided in [Kivinen 2002, 2006]).

Following this line of argument I argue that a direct comparison of stratification systems in countries, which are following different paths of social and economic development, is inappropriate. At the same time various unconventional accounts, which recognize such nation-specific particularities, usually focus on certain countries and lie beyond the context of international comparisons. Our own studies of data from a series of representative surveys of Russian population in 1994, 2002 and 2006, for example, have provided such evidence in favour of a peculiar structuring of social stratification in contemporary Russian society [Shkaratan, Yastrebov 2007b, 2010; Shkaratan et al. 2009]. Precisely, by ranking various stratification criteria with respect to their empirical significance we have already shown that sufficient criteria for distinguishing homogenous social groups can most likely be reduced to differences, which arise from unequal distribution of power and property, rather than mere occupational stratification.

A more principal question though is whether such unusual type of social relations is particular for the rest of post-socialist countries as a whole, and Russia, in particular. In this paper I will attempt to test this assumption empirically using a more broader set of data, which includes other European countries and allows for a more or less appropriate comparison.

Concepts of social inequality in modern societies

The growing social and economic differences between highly skilled and lower skilled workers in many developed countries have been closely analyzed by many Western and non-Western scholars, who more or less provide

similar accounts and claim that the decisive factor of differentiation results from employment status of workers (i.e. the character of economic activity and situation on capital/labour markets). Theoretically though this not a new idea, since the fundamental explanation of this phenomenon has already been given in the classical works of Karl Marx and Max Weber in the late XIXth – the beginning of XXth centuries.

According to Marx, the inequality in the form of distribution of people into social classes is a reflection of their unequal situations and roles in production. In other words, a more general basis for class formation is the *social division of labour*, which distinguishes between the majority of manual workers and those privileged few, who either supervise their labour, make trade, carry out government functions etc. This clear distinction between the executing and supervising labour historically preceded the emergence of private property and served as a basis for division of people into the exploiter and the exploited throughout the human history: e.g. ‘masters’ and ‘slaves’ in an ancient society, ‘feudal lords’ and ‘peasants’ in feudal societies, etc. Yet according to Marx it is only with development of a industrial (modern) mode of production and the emergence of private property that certain functions, spheres and types of activity become more or less strictly attached to different social classes. With the emergence of the latter a person’s belonging to a certain social class determines the scope of professions (occupations), which he or she can occupy, rather than the other way around. Thus, by recognizing the distribution of labour as one of the primary sources of inequality Marx has nevertheless paid attention to a more fundamental criterion, which determines the inequality of social positions: i.e. unequal access to the means of production [Marx 1959].

As has already been mentioned, a further advancement of the theory of social inequality, its sources, forms and meaning has been stipulated by the works of Max Weber, whose approach to the study of social stratification has become increasingly popular among the modern scholars. According to Weber, the Marxian model could be a source of fruitful hypotheses, but it was regarded as rather simplified to explain all of the difficulties of stratification, which is why Weber developed an alternative analysis that allowed for multiple sources of social hierarchy among people. Apart from its purely economic aspect he also suggested to consider other aspects of stratification, such as *prestige* and *power*, which along with the ownership of property were regarded as co-existent dimensions of social inequality in any society. Each of these dimensions produces a corresponding type of stratification: *economic*

classes in case of property relations; *status groups* based on prestige; and *parties* as following from power [Weber 1946].

Yet unlike Marx, who recognized classes as being real in the sense that they have contradictory interests due to uneven ownership over the means of production, Weber’s concept of class was less rigid, since it only referred to an abstract group of people, who share similar life chances. The concept of *life chances* is central to Weber’s analysis as it refers to probability estimations of the span and quality of people’s life. Although Weber recognized that the ownership of property is one of the key aspects that determine class situation (as well as life chances), a more principal aspect in his concept of class is the existence of markets, which, he argues, is the central mechanism of regulating relations in capitalist societies. Basically, what markets do is determine ‘who is who’. Apart from property as a such they evaluate people’s talents, skills, efforts, etc., in other words, everything that gives them an opportunity to generate earnings and acquire others goods from the market. Thus, class according to Weber is made up of people, who share a common economic situation: be it similar occupations, more or less equal incomes, amount of property, etc. As a consequence the interests of a typical representative of the class, rather than the group interests as in the case of Marx, serve as a source of its homogeneity.

Nevertheless, both of the mentioned approaches to defining classes are not that much contradictory, as some Western scholars tend to perceive them. The major argument between Marx and Weber rests in Weber’s denial of any potential conflict between the positively privileged classes (i.e. the proprietors) and the negatively privileged classes (i.e. the non-proprietors). This issue though is of minor significance as far as the mere character of social and economic differentiation is concerned. In fact, both approaches have largely benefitted from the critique that has been developed by their relative supporters, who had to find better ways of explaining the changing patterns of social inequality in modern societies.

In particular, one of the most widely spread approaches to analysis of social inequality in contemporary sociology is a particular extension of a neo-Weberian approach according to British sociologist John H. Goldthorpe, who along with some of his colleagues promotes a class model of society based on differences in employment statuses. These differences emerge in an industrial society, which is organized according to the principles of economic and technological exploitation [Erikson, Goldthorpe 1992; Goldthorpe, McKnight 2006].

Goldthorpe claims that market mechanism, which lies behind the distribution of people in the system of social division of labour is the core reason of emerging inequalities. According to this three basic class positions are distinguished: employers, employees and self-employed. Employers buy labour from employees and thus gain some power over the latter. This forces employees into selling their workforce, while self-employed are relatively autonomous and can be assigned neither to employers, nor to employees as such.

Yet according to Goldthorpe the more important aspect of inequality in the context of social differentiation is that it emerges among the larger group of employed. Here the author brings in a new criterion, which is directly related to the character of labour relations – *the type of labour contract*, which regulates the employment. The conceptual foundation rests on the fact of weighting potential risks faced by employers, who hire workers and offer them employment contracts. Particularly these are the lack of complete control over workers' activities due to their specific knowledge and skills, the value of which in some types of employment rises proportionally to the duration of employment contract. Thus all these terms are accounted for by employers and determine the appropriate character of employment contract.

Goldthorpe also claims that 'his' classes differ in their specific opportunities and constraints, some of which directly affect economic security, stability and prospects, as well as intragenerational and intergenerational social mobility of individuals.

Yet the more common argument among Goldthorpe's critics is that he, unlike those, who support Marxist theories, neglects the particularity of the social group of larger proprietors and puts them into the same social class with higher grade professionals and managers. In this respect a more serious alternative of Goldthorpe's views on the class model of society is the neo-Marxist approach developed in the works of Erik O. Wright [Wright 1997; Wright 1985].

Wright stresses the fact that the more fundamental reason of society's division into social classes rests in unequal access to the means of production. This division explains the rather common opposition of interests between various social groups, which is why this dimension of inequality cannot be neglected.

The relations of exploitation according to Wright have never become less significant, let alone they have never faded away. Yet Wright extended Marx's ideas and gave a more detailed explanation of the character of differentiation

in a contemporary society. Precisely he claims that relations of exploitation emerge from unequal possession of organizational skills and knowledge, as well as autonomy of labour.

The inclusion of these additional criteria in the Wright's model of exploitation was a key to distinguishing the so called 'middle class', which occupies intermediary positions between the traditional class of capitalists and workers. Thus following from unequal autonomy of labour the traditional middle class has been distinguished, i.e. petty bourgeoisie, who, on the one side, act as employers hiring additional workforce or self-employed in the case of individual labour, while, on the other, they cannot be assigned to larger proprietors, whose decisions often have far-reaching consequences, if not contradict the interests of minor proprietors. Similar logics applies to explanation of contradictory class locations (which is, in fact, Wright's term) of professionals (experts) and managers, i.e. the representatives of the so called new middle class'. The fact that they possess various specific skills and knowledge determines the relative similarity of their interests with the interests of proprietors, which is different in the case of their employment status.

Table 1. Major contemporary theoretical approaches to the nature of social inequality

Theoretical approach	Source of inequality	Major classes	Character of relations	Key problems
Neo-Weberian (Goldthorpe)	Market relations (labour market)	Self-employed, working class (skilled or unskilled), middle class ('service class' and intermediate class)	Intra- and interclass competition	Segmentation of life chances, social mobility
Neo-Marxist (Wright)	Possession over means of production	Bourgeoisie, working class, other classes (petty bourgeoisie, new middle class)	Social conflict due to exploitation	Class struggle, exploitation, proletarianization

Thus, the notion of 'social class' among the scholars of social inequality has yet no single definition due to existing differences in opinions of how societies are organization and what forces drive its development. The more universal thesis, which is shared by most researchers, is that people unequal one way or another, and that this inequality depends on how society is organized economically as well as socially.

Yet, in spite of conceptual divergences between Wright's and Goldthorpe's schemes (see Table 1), there are reasons to claim that Western scholars seem

to have more or less similar views on the structure and hierarchy of social inequality in their societies, since both of these conceptual frameworks reflect the principles of social division according to the logics of social reproduction of capitalist societies, which are constituted from two basic elements – market and private property institutions.

The most common feature of most contemporary approaches to analysis of social differentiation is the consensus over the most elementary units of social classification – i.e. occupations. The latter serve as a construction material for various national and international (e.g. ISCO-88) classifications, which are usually taken as moderated class models of society, where the issues of distribution of power, property, life chances and social inequality per se are usually neglected. They are most commonly used for policy-making to deal with the issues, that concern certain categories of population, and are therefore a powerful tool of governing social and economic processes at the state level. The structure and sense of national classifications to a larger extent rely on particular social and economic organization of countries and reflect the style of their government. In other words each country has a particular approach to collecting and arranging the appropriate statistics in order to make qualified decisions.

National socio-occupational classifications are usually based on three approaches: 1) classification of occupations per se regardless from formal training requirements; 2) classification based on differences in actual training and qualification; 3) classification based on statuses assigned to certain occupations (position in occupation)¹. Yet the standard objection of scholars against the use of such classifications is the absence of a comprehensive methodology as well as theoretical justification of their deduction. And this is not surprising given that the primary goal of these statistics is not the analysis of social and economic problems, rather than the routine description of certain fact of the social and economic reality. The official statistics can be regarded only as one of the possible tools of applied sciences.

Scientists who tend not only describe, but systematize information about the social environment, have to find ways of explaining the regularities, which lie behind the differentiation of various social groups according to their level and way of life, economic and social behaviour, etc., rather than just provide

¹ These conclusions are drawn from analysis of a number of European national socio-occupational classifications, which have been discussed in the special issue of *Sociétés Contemporaines* («Enjeux et usages des catégories socioprofessionnelles en Europe», № 45-46, 2002(1-2)).

measures of the extent of these inequalities. In this respect most official data on social and economic situation of workers in various occupational groups and/or industrial sectors cannot provide enough material for a full-scale study of reasons of social inequality. At the most it may help reveal certain ‘symptoms’, yet they would most likely be insufficient to provide an accurate ‘diagnosis’ of the social situation.

And yet study of stratification based on socio-occupational differences has a strong conceptual foundation. This can be resumed from the recent theoretical debates on social inequality [Goldthorpe 2000; Grusky, Weeden 2001, 2002; Rueschemeyer, Mahoney 2000; Scott 2002; Sørensen 2000; Wright 2000]. According to American authors D. Grusky and K. Weeden the contemporary class analysis has to revitalize itself through introduction of a more comprehensive analytic category, i.e. *occupational groupings*, which is basically an extension of Durkheimian tradition. The authors claim that the latter become the fundamental units of exploitation, which occupy the intermediary positions between the state and individuals. Neglecting the many arguments against the substituting of traditional ‘big class’ analysis with these more disaggregate categories, it has to be concluded that the logics of the American sociologists tends to rest on the common ground with some theoretical arguments of European tradition, where social classes aggregate from occupations.

Thus, the occupational structure, which represents the whole variety of occupations and correlates the system of social relations to the economic activity of individuals, can be regarded as a hierarchy of various social positions of the economically active members of society. The most important characteristic of such socio-occupational structure is that it is a sort of projection of social differentiation on the processes of economic activity, since it determines the relations between individuals, which emerge in the process of production. Precisely it establishes the similarity as well as differences between various occupational positions as a particular form of social differentiation. The social differences emerge from the differences in special training and various statuses, which is why the whole system can be regarded as a hierarchy of socially ranked workers. At the same time each group of occupations similar with respect to their social characteristics can be regarded as a formal statistical ‘frame’ for a rigid social class, since it is, on the other hand, distinguished through a particular set of social values, norms, interests, lifestyles, etc. that associate certain individuals – members of that class. In the case of social mobility new norms and values are adopted through industrial social networks,

communication with neighbours, etc., which requires a certain period of adaptation.

Yet the only thing which is *directly* reflected in segmentation of occupations themselves is the technical (functional) division of labour, rather than its social heterogeneity. That explains frequent cases, where the carriers of the same occupation or individuals, who engage in similar economic activities, may relate to different social strata. For that reason the use of occupations as an empirical indicator of social inequalities often requires additional criteria, which may have different significance in different contexts. One should also keep in mind the limited lifespan of certain occupations, which is subject to economic and technological change (e.g. one would barely claim that machine operators in the 1930s and in the 1990s would occupy the same social positions). Thus, it can be suggested that social classes may change their content in the course of societal development. Nevertheless, in spite of all these doubts, sociological classification of occupations based on direct operationalization of generic features of certain labour can be rather accurate in reflecting the social and economic inequality of a relatively static society.

Data and method

In solving the task of determining the criteria of social and economic differentiation in contemporary Russia in my earlier publications² I relied on the data from a series of representative surveys (1994, 2002 and 2006), which were initially designed to provide an accurate and multifold information about the post-Soviet system of social stratification. The focus of these surveys made it possible to construct the required system of social attributes that covered almost all existing dimensions of inequality, such as human resources, occupational and employment statuses, economic behaviour, cultural consumption, status in power, asset ownership and many others.

Yet the comparative context, which distinguishes current research from my earlier tasks, has urged me into searching for a new source of information, which would, on the one hand, provide me with the more recent data on the similar set of social attributes, while, on the other, holding for their comparability across a series of national samples. For this reason I referred to an in-

² The results of this long-going research on social stratification have been summarized in the recent co-authored monograph, see [Shkaratan et al. 2009].

creasingly popular set of social data on European societies – the *European Social Survey* project (a detailed description of the survey, including all sets of data, are available on-line, visit www.europeansocialsurvey.org).

Another important feature of this survey, which is also crucial for this kind of research, is that the coding of most required variables has already been conducted in order to facilitate all possible cross-country comparisons (including stratification research): i.e. a system of indicators which can provide accurate information about respondents' employment statuses, their situation in the system of labour relations, the level of their relative autonomy at work, the complexity of their labour, their sources of income, etc.

In order to represent various systems of social and economic differentiation according to certain theoretical views researchers develop class schemes, which serve as a means of modelling real inequalities that emerge in a society. The quality of those schemes is determined by their capacity of producing empirically homogenous social groups, which could further be claimed as real³. In a mathematical language, provided a certain operationalization of classes, this would mean that the factor variable (the class variable) is expected to correlate strongly to other variables, which commonly describe classes in terms of typical living standards, lifestyles, social and economic behaviour, etc.

The general theoretical context of my research situation allows for existence of various principles of social and economic differentiation in societies that happen to be a part of different civilization systems. I further hypothesize that the existence of the social classes, which are characteristic to the structure of modern capitalist societies, can be questioned with regard to those countries, which lie farther away from the core countries of the capitalist world-system (i.e. *Eastern* countries as in the 'East-West' dichotomy, or *Southern* ones as in the 'South-North' dichotomy). In other words, I expect that the corresponding social groupings (be it in Goldthorpe, Wright or any sort of socio-occupational scheme) would empirically be less homogenous due to the weakness (or even absence) of the institutional mechanisms that match these class situations to specific sets of resources and achievements.

One of the more comprehensible criteria for assessing the empirical adequacy of stratification models could be tests for homogeneity of the corresponding groupings. Yet these tests alone are still insufficient. For researchers

³ The conceptual definition of the notion of real (homogenous) social group, including some implications for its further use in empirical research have earlier been discussed in [Shkaratan, Yastrebov 2007a, 2010].

who study societies regard ‘social class’ as a highly capacious tool for explaining a whole set of social phenomena that concern unequal distribution of resources within a society, variability of behaviour patterns, life settings, etc. Thus, it is necessary that ‘social class’ is defined not only through a feature of homogeneity of its characteristics, but through a feature of its distinguishability from other existing classes as well.

If a researcher is to test theoretical schemes and try to derive the unbiased grouping criteria from the whole set of all possible descriptors, one relevant mathematical solution can be entropy analysis. Generally, the principle, on which this method is based, can be described as follows. By selecting such combinations of possible criteria where the measure of entropy (i.e. the uncertainty of distribution) of observations is minimal we should expect these criteria to produce groupings with higher homogeneity of their inner structure. The method of entropy analysis basically tests the hypothesis according to which the set of individual social attributes is subject to some form of dependency. By understanding social inequality as general dissimilarities of individuals (observations) within the whole set of social variables, entropy analysis helps ranking various subsets of descriptors to define those, where there is a certain order of distribution of observations. Thus, it is assumed, an unbiased solution for discovering differentiating factors of social heterogeneity – criteria of social inequality in a given society – can be achieved. The more accurate description of this method along with its application in empirical research has been several times provided in earlier publications [Shkaratan, Yastrebov 2007a, 2009, 2010; Sergeev 2002; Taganov, Shkaratan 1969]. The shortened description is provided in mathematical appendix.

How could the results of entropy analysis be interpreted, when it is applied to the task of assessing the validity of stratification models in general and their constructing criteria in particular? Let’s take some combination of n variables, which represent some meaningful dimensions of stratification. What would mean the ‘more dense’ distribution of observations within this n -dimensional space? In a metaphor, where this space is regarded as a ‘house’ with many ‘apartments’, all possible combinations of variables’ values (given they are limited, i.e. non-interval) represent the number of these ‘apartments’. If people (respondents) are more or less equally distributed across these ‘apartments’, in terms of entropy analysis this would mean that the ‘house’ is homogeneously populated, i.e. different people tend to avoid living in same ‘apartments’ together. Yet if for some reason a few of these ‘apartments’ become so popular that they start attracting more people and become more crowded than the

others, this would mean a decrease in entropy since already some regularity of distribution appears. The stronger this regularity is in a space that is represented by a set of social inequality factors, the more reason to consider its ‘apartments’ as cases of potential ‘social classes’.

A better representation of the method can be given with the following example. Let’s assume there is a hypothesis to be tested, according to which the efficiency of a labour market in a highly developed society is higher compared to less developed societies (such as in ‘post-socialist’ states, for example). The efficiency (or rationality) of national labour markets is operationalized in terms of their ability to match people’s qualifications to certain occupations and rewards. Since most social surveys contain data on respondents’ current income, education and occupation status, we only need a measure of matching between the corresponding variables across the whole set of observations for each country. And this measure (n -dimensional contingency coefficient) is derived from entropy analysis.

The task of determining whether in some post-socialist countries there has formed a particular type of social inequality could thus be reduced to a test of hypotheses about the universal nature of social and economic differentiation, which is advocated by many contemporary theorists.

Exploring the results

Most comparative stratification research today relies on the model of analysis, the goal of which is to critically assess existing classifications and suggest their further specification for more accurate international comparisons [Bergman, Joye 2001; Leiułfsrud, Bison, Jensberg 2005]. This model suggests that ‘social classes’ are first constructed according to key criteria, which have a certain theoretical foundation, and then used as key integral indicators for social and economic situation of individuals. It is characteristic of this analytical model that resulting classes are further regarded by researchers as really existent, i.e. the major problem of research lies in determining their proportions and content across various societies, rather than establishing their real validity.

In reality though it is barely necessary to claim the realism of such classes: most collective actions in Western Europe have a distinct class flavour (e.g. trade union strikes), just as self-identification is often exercised in terms of

association with ‘white-’ vs ‘blue-collar’ labour. On the other hand, this situation is less characteristic of East-European countries, where the relative inactivity of the major social groups (even against the world financial crisis and their increasing social and economic ill-being) puts class origins of their societies into question. Yet it has to be underlined that the formation of class consciousness as well as the study of class interests lie beyond the scope of this research. The more important task in the context of studying the fundamental principles of social and economic differentiation in different societies is the comparative analysis of regularities, which may exist regardless people’s perception and reflect the functioning of certain institutions.

I will begin with the statement that there are no fundamental differences between the theoretical approaches of neo-Weberians, neo-Marxists or even functionalists, since all of these approaches can one way or another be reduced to the factor of unequal distribution of people into socio-occupational positions. Empirically this is easily established by overlapping the corresponding stratification hierarchies, which allow for various conversions from one classification into another. Thus, in spite of the differences in emphases, which various researches set for different aspects of class situation, their primary constructing criteria include the following: *employment relations*, through which self-employed and employees are distinguished, and *occupation*, which in its operationalization includes many important stratification parameters such as education, skills, terms and the character of labor, etc.

An alternative to deriving stratification hierarchies from existing theories (where the set of possible class criteria⁴ is always known *a priori*) is a more neutral method of discovering homogenous social groups via exploring the actual distribution of observations in as much significant dimensions of inequality as possible, i.e. the method of entropy analysis.

The contemporary stratification schemes (classifications), which reflect alternative representations of social inequality, can be obtained via combining information about social and economic situation of individuals based on a certain system of basic parameters. These systems can be decomposed into elementary criteria, whose explanatory power with respect to other parameters of ‘class situation’ can further be empirically tested. These criteria, or factors, can be regarded as related to each other (as in the case of Marx’s statement, according to which the relation to the means of production determine the scope of occupations that can be exercised by individuals) or totally independent (as

⁴Or non-class situation in terms of the absence of classes understood as principal components of social hierarchies in non-Western (non-Atlantic) societies.

in the case with employment relations and the extent of qualifications). While the latter aspect is very important for the specification of analytical model based on regression analysis, there is absolutely no need in distinguishing between dependent and independent variables if entropy analysis is used – what is more important is to determine, whether the distribution of people (respondents) in a certain system of parameters is subject to some form of regularity or dependency⁵.

From all possible sets of inequality factors I focus on those, which correspond to the major theoretical approaches to contemporary stratification: the neo-Weberian (J.H. Goldthorpe), the neo-Marxist (E.O. Wright) and the stratification based on occupational groupings (ISCO-88). The corresponding sets of inequality attributes are operationalized in terms of certain parameters as follows in *Table 2*.

In order not to overcomplicate the procedure of entropy analysis, which is quite sensitive to the number of space dimensions, I limit myself to a single simple controlling indicator, which is commonly used to test the validity of stratification models – the level of respondent’s *income*. In spite of all the critique about the use of such indicator as a measure for respondents’ material well-being there is one strong argument I rely on. Just as any other researcher I would prefer to have a more accurate tool of measuring respondents’ well-being, yet I believe that by overcomplicating social information there is a far greater risk of distortions that come from various manipulations of social facts⁶. This, along with the lack of such information in the European Social Survey data, has persuaded me to rely on subjective judgments about respondents’ well-being⁷. It can be argued though that these judgments are subject to a particular social and economic situation in the respondent’s country and thus may lead to false deductions. Yet since in the case of entropy analysis we only look at the nominal scales and look at the distribution of observations rather

⁵The more common instruments of measuring association between cases of different social phenomena are various modifications of pairwise correlations, which in fact are many: i.e. Pearson, Spearman, Kendall, Cramer, Chuprov coefficients, etc. The measure of heterogeneity based on entropy as suggested in 1969 by I. Taganov (for more detail see the Appendix) can to a certain extent be regarded as a genuine coefficient for *n*-dimensional associations.

⁶By such I mean procedures, which allow for a certain ‘straightening’ of information based on various indirect indicators and estimated corrective coefficients.

⁷The corresponding question in the 3rd wave of the *European Social Survey* in 2006 stated: “Which of the descriptions on this card comes closest to how you feel about your household’s income nowadays?”. The respondents were to answer according to the following scale: “1. Living comfortably on present income”, “2. Coping on present income”, “3. Finding it difficult on present income”, “4. Finding it very difficult on present income”.

than the distribution of variables, this argument doesn't apply. Anyhow the subjective well-being scale is highly correlated to the interval income scale even on the empirical level⁸.

Table 2. Major dimensions of social inequality in alternative stratification schemes

Conceptual approach	Major dimensions of inequality	Possible values according to <i>European Social Survey</i> original codings
based on ISCO-88	occupation level of education	based on ISCO-88, 1-digit scale unified 5-class scale
based on Goldthorpe's class scheme	type of contract employment status level of education	«limited», «unlimited», «no contract» «employer», «employee», «self-employed» unified 5-class scale
based on Wright's class scheme	employment status extent of authority level of education	«employer», «employee», «self-employed» comparable 6-class scale unified 5-class scale

Note: for a more detailed description of *ESS* variables included in the analysis refer to Appendix.

The first system of parameters that I look at describes inequality in more or less conventional dimensions of 'occupation', 'education' and 'income', i.e. all of us identify ourselves through these key parameters in our everyday life. It is also fair to say that the corresponding system of stratification ought to be universal for all modern societies: since 1) they share a technological order that determines the division of labor into occupations that require certain skills; 2) they all have a working institution of professional education that provides individuals with this certain knowledge and skills; and 3) income is also an important dimension of stratification as it reflects the character of economic distribution in most societies.

The central problem of the research requires that I determine how the distribution of individuals within this system of inequality occurs in different

⁸ The Spearman's coefficient of rank correlation between these two variables for the all-country sample accounted for 0.577 (statistically significant at the 1% level). Although it has to be noted that there is no single algorithm for coercing these country-specific scales to a comparable indicator. In particular, in Russian and Bulgarian data there were only 5 income intervals, while in most countries there were 12. A more detailed study of the documentation of the survey has raised a number of questions as to how these income groupings were obtained, not to mention their use in cross-country comparisons [<http://ess.nsd.uib.no/ess/round3/field-work.html>].

societies. Is there really difference in how their certain institutional mechanisms provide matching between the level of individuals' education and training with certain occupational and economic status in the system of functional division of labor?

The *Figure 1* shows the results of calculating the measure of agreement between the corresponding dimensions according to the entropy analysis (H_N). The countries, which belong to various parts of Europe and hence theoretically are considered as carriers of different cultures and civilization specifics, are flagged in certain colors.

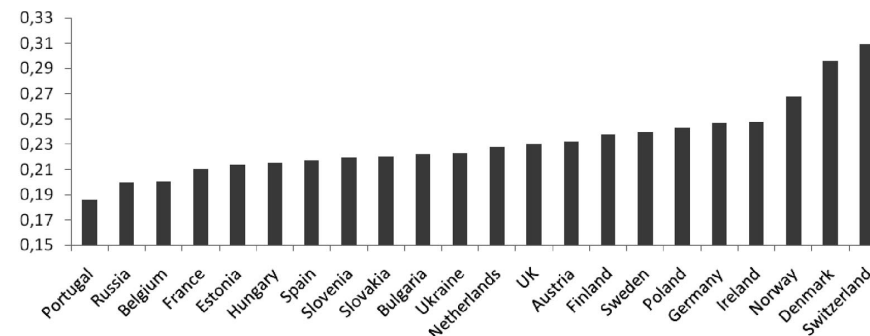


Figure 1. "Meritocracy" of social and economic inequality in European countries

Note: in terms of heterogeneity measures H_N for "education – occupation – income".

According to the results it is almost clear that there is no certain order that reflects the extent to which the countries are separated from the poles of the 'East-West-European' continuum. Yet it is also apparent that the distribution of countries according to the level of matching between 'occupation', 'education' and 'income' is not at all accidental.

As seen from the diagram above, Russia (0.200) outmatched by Portugal (0.186) alone is characterized by one of the lowest values of H_N , which corresponds to the most random distribution of respondents in the given space of dimensions. Such proximity reflects the similarity of labour markets between two countries, since they face obvious problems with development in both Russia and Portugal (one of 'the new sick men of Europe'). This can as well be an empirical reflection of the certain similarity of social structures in both of these countries, whose histories feature a decent record of authoritarianism: i.e. the Soviet regime in the case of Russia and the 'New State' of António de Oliveira Salazar in Portugal, which was the last authoritarian re-

gime to fall in Europe as long as 40 years ago. No matter how symbolic this tradition of authoritarianism can seem today, it certainly has an impact on structuration of labor markets.

However, it is rather uncommon that Belgium (0.201) and to a lesser extent France (0.211), which in my theoretical model are categorized as belonging to the core countries of the Western civilization and thus should demonstrate more efficient labor market, feature such lower measures of agreement.

Yet in spite of these deviant cases (France and Belgium) the rest of results already look less surprising. The rest of post-socialist countries, which were included in the program of European Social Survey in 2006 – Estonia, Hungary, Slovenia, Slovakia, Bulgaria and Ukraine – lie very close to each other according to H_N (0.214 – 0.222) as calculated from their national samples. This proximity can be regarded as nonrandom given their institutional uniformity that partly owes to their socialist past. Besides, although most Central and East-European societies historically resisted both, socialism and Russian dominion, their institutional structure is yet less consistent with institutional structure of the core Western countries.

At the same time it has to be admitted that the distribution of these countries according to the results of entropy analysis gives no serious reason to claim that, for example, Ukraine (0.222), which is regarded as a semiperipheral state in the world-system of etacratism, in this respect is more ‘etacritic’ than Estonia (0.214), which lies at its periphery. Spain, which appears to have accidentally occupied its place in a row with East-European countries, nevertheless, is a less deviant case since it is explained through a similar logics as in the case with Portugal (more evidence will be given lower).

The case of a rather separately situated Poland (0.243) is more or less consistent with the general hypothesis: this country lies at the very edge of the post-socialist world and is an organic part of contemporary Europe today, just as it has always been more liberal and market-oriented than the rest of the ‘socialist’ countries in the middle of the previous century.

And, finally, the more developed countries of the so called ‘Old Europe’ demonstrate the higher rates of agreement between the ‘occupation’, ‘education’ and ‘income’ of their citizens, which is also consistent with the theoretical argument that has been put forward.

The general conclusion over the results that were obtained from the analysis of the system with the following dimensions – ‘occupation’, ‘education’ and ‘income’ – is that they determine the system of stratification in certain

countries to the extent of development of their national labour markets (which corresponds to the idea of distinguishing between the more developed Western countries and their less developed post-socialist counterparts on *Figure 1*).

Thus, the system of coordinates, which is used to analyze social inequality in the more developed Western societies in terms of income, human capital and socio-occupational status is more likely to lose its explanatory power in those European countries, which fall under the influence of the Eurasian civilization system. In other words, the probability of discovering real (homogenous) social groups in the corresponding system of stratification in etacritic societies ought to be lower.

Let’s now take a look at one of the better known extensions of this approach – the class scheme by J. Goldthorpe, which is often used in studies of social inequality and social mobility in European countries. The system of key dimensions that corresponds to this theoretical approach can be decomposed into the following elements: ‘type of contract’, ‘occupation’, ‘employment status’, ‘income’ and ‘risk of unemployment’. The latter is taken to provide a more complete representation of Goldthorpe’s ideas, who claims that it refers to one of the categories that reflect people’s ‘life chances’ determined by class situation [*Chan, Goldthorpe 2007*].

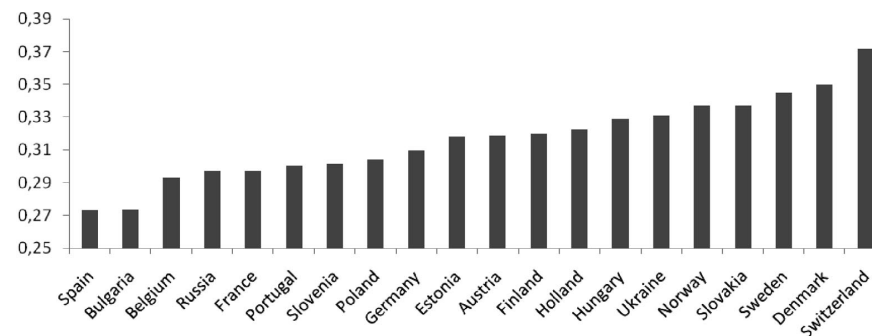


Figure 2. Association between Goldthorpe’s classification criteria (EGP) in European countries

Note: in terms of heterogeneity measures H_N for “type of contract – occupation – employment status – income – risk of unemployment”.

The results of this analysis are given above (see *Figure 2*). As seen, Sweden, Dania and Switzerland – one of the better developed countries in old Eu-

rope – feature the highest rate of agreement between the selected variables. The proximity of the Scandinavian states is nonrandom in this case, just like in the previous one (see *Figure 1*): it seems that the working model of the socially oriented economic development, which can ironically be referred to as ‘liberal socialism’, stays in the better agreement with the logic of ‘life chance’ distribution according to Goldthorpe than in other developed European countries.

On the other hand, we can observe the neighborhood of Spain, Russia, and what is also characteristic, Bulgaria – where the measure of agreement (H_N) between the selected attributes is minimal. Spanish case in spite of all the surprises could be explained through its marginal situation with respect to the civilization of Western Europe. Precisely it is a part of Iberoeuropean civilization just as it is the case with Portugal (see *Figure 1*). As is known, the peculiar feature of such ‘marginal’ civilizations (Russia, Latin America, Pyrenean and Balkan regions among them) is their cultural diversity. If applied to their interaction with the core countries of the Western (Christian) European civilization, this implies that they still have repercussions of the longstanding influence of the neighbouring civilizations. E.g., in the case of Spain and Portugal these are Arabic-Muslim culture and civilization; in the case of Balkan countries – Turkish-Muslim civilization [Jonov 2008; Shemyakin 2001, 2007].

In general, the results above show that the explanatory power of the Goldthorpe’s stratification, which draws from his theoretical assumption that inequality is mediated by labour market (to a greater extent) and employment status (to a lesser extent) unlike the more simple system of stratification (according to occupation and training), barely depends on the countries’ institutional setup as determined by their location within the ‘East-West’ civilization dichotomy. If, for example, Poland, Slovenia and Estonia more or less fit such theoretical framework, same logic does not apply to Hungary, Ukraine and Slovakia, because otherwise it would demand that the character of their social inequality according to Goldthorpe could be described by patterns similar to those of etacratric countries (for example, Russia).

Finally, the third scheme, in which the situation of individuals in the system of social inequality is determined in terms of a neo-Marxist approach as suggested by E. Wright, operationalizes class situation in terms of such parameters as employment status, qualification in occupation and situation within the organizational hierarchy. For the purposes of analysis the corresponding space of dimensions has been constructed. The results of entropy analysis are given in *Figure 3*.

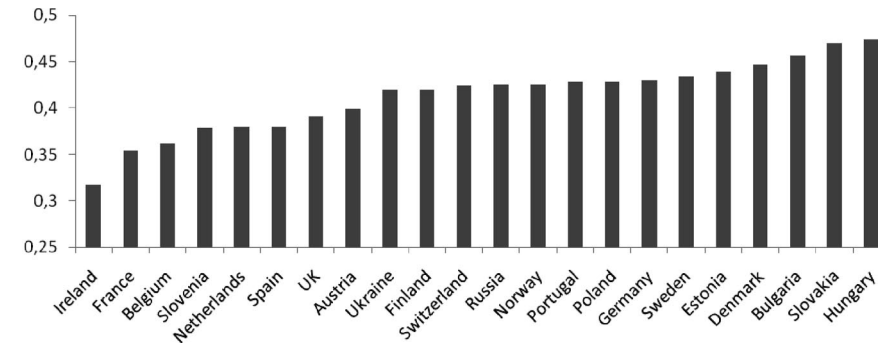


Figure 3. Association between Wright’s classification criteria (EGP) in European countries

Note: in terms of heterogeneity measures H_N for “employment status – level of education – extent of authority – income”.

According to these results unlike the first two cases nothing certain can be said about the relation between the Wright’s scheme of social stratification and the countries’ location in the ‘East-West’ dichotomy. The ranking of societies according to the measure of agreement between mentioned parameters shows that they are not only chaotically distributed with respect to their civilization origins, but the values of H_N , in general, appear to be extremely high (relative to the figures above): from 0.317 in Ireland to 0.474 in Hungary. This situation is characteristic for the more dense distribution of observations, which indicates the higher degrees of their clustering into classes within the selected system of dimensions. This brings some empirical support in favour of Wright’s (Marx’s) stratification system, which can be regarded more or less universal for all societies that seem to follow the same path of capitalistic development (i.e. independently of their civilization macrostructure).

Unfortunately, little can be said about the questionable results in the case of Wright’s scheme verification. One of the possible reasons that might have caused this lie in inappropriate operationalization of the class situation (here I limit myself to the data that has been available from *European Social Survey*). The other more likely reason could be insufficient elaboration of the ‘class’ category according to E. Wright, which could have been better specified to be distinguished from a rather different category of ‘estates’, since the latter are assumed to be the more appropriate definition for the real social groups in an etacratric society. One of the key criteria to distinguish estates,

according to our theoretical deductions (e.g. see [Shkaratan, Yastrebov 2008]), is the situation of individuals within various power hierarchies (be it in a certain organization, or political system of society as a whole), through which different privileges are distributed. As has been shown, Wright also has it in order to determine class situation in terms of exploitation relations. Although this terminological similarity does not appear to be so random: according to a German sociologist W. Teckenberg, who closely studied Soviet societies, under some circumstances estates may crystallize from socio-occupational hierarchies. These circumstances, he suggests, shape under the state mode of production, where social inequality emerges from bureaucratic and professional control over particular resources [Teckenberg 1977, 1982, 1989]⁹.

Thus, there is reason to believe that in Wright's scheme of stratification class situation per se (as determined by relations to the means of production) overlaps with socio-occupational situation (through differentiation according to education and training) and estate situation (as determined by relation to power within various power hierarchies). This, in turn, is probably the cause of such unambiguous results. Anyhow, these ideas will have to be tested further and should consider the non-class principles of social and economic differentiation as well.

Yet in spite of all these calculations the European Social Survey data doesn't provide sufficient information to allow for a more accurate analysis of the countries' location on the scale of 'late industrialism (or Western post-capitalism) VS post-socialism (or Eurasian neo-etacratism)'. For example, it is almost impossible to capture the extent of respondents' power as well as the amount of their property, which are obviously one of the key factors of social inequality. The only possibility was to rely on various indirect indicators, one of which is the meritocracy of the social selection principle.

One of the best and most complete typologies of existing stratification systems in contemporary literature have been provided by D. Grusky. According to his typology the class system of industrial society is eventually replaced

⁹ It is peculiar, for example, how Teckenberg reinterprets the Weberian concept of status groups literally as 'estates', i.e. an archaic term for defining social groups that distinguish their members through various privileges. Basically he defines 'estate' as a clique that restricts membership for outsiders through developing particular life styles, imposing certain quality of education, etc. This substitution of meanings owes to the fact that the Germans (and Weber himself, of course) use a single word for referring to *status*es and 'estates' (*der Stand* or *Stände* for plural). Nevertheless, I distinguish both to refer to 'estates' as a more rigid concept of social groups that represent the basic elements of a certain type of society and may interfere with, or even distort, class differentiation.

with 'advanced industrialism' (or post-industrialism and even 'information (network) society' as proposed by other theorists). Unlike the class-based industrialism, where the key resource is represented by economic capital (means of production), this new system puts more emphasis on human resources (such as education, knowledge and training) [Grusky 2001].

It is apparent that such approach to dynamics of contemporary societies implies a certain change in elite formation. While in the class society elites are determined through their ability to control the means of productions, the leading positions in advanced industrialism (information society) are occupied by those, whose achievements are most valued by the whole society (such as creative contribution to innovation processes). Another famous sociologist Manuel Castells referred to such elites as informational workers. In this system the traditional class hierarchy overlaps with the hierarchy of human and cultural capitals. This means that in contemporary information age such factor of inequality and elite formation as people's ability to adopt information and apply their intellectual capital in the process of labour becomes the driving force of societal development. Thus, the social hierarchy begins to line up with the scale of possession not just over economic, but intellectual capital as well [Brooking 1996; Castells 2010a, b, c; Castells, Himanen 2002; Wallerstein 1999].

All of the above applies to post-socialist countries to the extent the latter can be counted as post-capitalist, although most of these features are yet to be found in the USA and some of Western European developed countries only. As for the post-socialist world, which lies in direct focus of the current research, it is assumed that in such countries as Russia and other neo-etacratism states the role of the meritocratic principle of social selection is weak. Moreover, it is weak enough to be perceived as such by society itself, which is reflected in subjective judgments about the meritocracy of rewards according to individual achievements and personal qualities. Both of these measures, subjective judgment together with actual performance of the meritocratic principle, are sufficient to determine a country's location on the scale between information (network) and neo-etacratism societies. That is why I further explore the European Social Survey data to enhance my analysis with subjective judgments about social rewards.

In spite of some difficulties that occurred with empirical verification of the principle of class differentiation according to different theoretical approaches, some evidence on distinguishing between European and Eurasian civilization inequalities has been brought, which is particularly clear in the case of stratifi-

cation within dimensions of ‘occupation’, ‘education’ and ‘income’. Yet these results seem to look even more convincing if enhanced with data on subjective judgments. In order to do this I refer to the information, which is provided by the following question from the European Social Survey data set 2006: ‘To what extent do you agree or disagree with the following statement? – Considering all my efforts and achievements in my job, I feel I get paid appropriately’. We have calculated the share of the positive answers (*Agree strongly* and *Agree*) for each country and have overlapped the resulting scale with our ‘meritocracy’ scale, which has been calculated above as a measure of matching between occupation, education and income. The results are given in the *Table 3*.

Table 3. The correlation between and objective and subjective scales of ‘meritocracy’ according to *European Social Survey 2006*

Group of countries	Countries	Share of positive answers to the question on whether respondent’s income is adequate to his/her efforts, achievements and success	The measure of agreement between the dimensions of occupation, education and income (according to results of entropy analysis)
Western European countries	Switzerland	37.6	0.309
	Norway	36.9	0.268
	Denmark	33.6	0.296
	Austria	32.3	0.232
	Sweden	32.2	0.240
	Holland	31.7	0.228
	Ireland	30.9	0.248
	Belgium	30.0	0.201
	Great Britain	27.7	0.230
	Spain	25.3	0.217
	France	23.7	0.211
	Germany	23.0	0.247
	Finland	22.8	0.238
	Portugal	14.7	0.186
	Post-socialist countries	Slovenia	22.4
Estonia		18.3	0.214
Slovakia		17.8	0.220
Bulgary		14.2	0.223
Hungary		12.1	0.215
Russia		10.2	0.200
Ukraine		10.1	0.223
Poland	9.9	0.243	
Spearman’s correlation coefficient		0.554 (0.007)	

The correlation between two scales is quite strong and accounts for 0.554 (statistically significant with an alpha of 1%). It reflects (according to entropy analysis) that the subjective opinion of respondents on how just the resources are allocated within the society corresponds to how these mechanisms of matching between the variables of income, occupation and education work in practice. Moreover, these judgments as well as the real character of inequality differ with respect to the origins of different countries. For example, the share of respondents, who more or less agreed that their efforts and achievement are appropriately rewarded, in post socialist countries accounts for 9.9% (in Poland) to 22.4% (in Slovenia), while in Western European countries this figure with the only exception of Portugal (14.7%) starts off with 22.8% (in Finland) and higher.

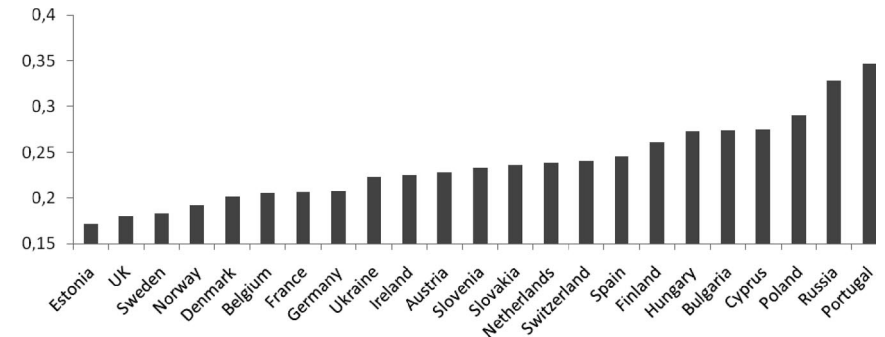


Figure 4. The rates of intergenerational socio-occupational ‘immobility’ in European countries

Note: in terms of heterogeneity measures H_N for «respondent’s occupation – father’s occupation – mother’s occupation»

Another important indicator that can be used to determine the character of social inequality is the extent, to which the labour market opportunities of children depend on the labour market situation of their parents¹⁰. The study of intensity of the intergenerational social mobility across the selected countries poses a great interest, since it can provide more empirical evidence on

¹⁰ It is rather unfortunate that the use of this method requires that all included cases contain no missing values, i.e. all cases with at least one missing value have been dropped from analysis. For every national sample the share of such cases accounted for no more than 15% of the sample.

the estate nature of social inequality in neo-etacratric societies. This problem can be also be solved with the use of entropy analysis.

To solve this task a certain space of dimension has to be constructed, which relates the socio-occupational situation of children to the socio-occupational situation of their parents. For this purpose I will rely on aggregated categories obtained from ISCO-88 (the aggregation algorithm is provided in *Appendix 3*). The results are given in *Figure 4* in terms of agreement between the following variables: ‘respondent’s occupation’, ‘occupation of respondent’s father’, ‘occupation of respondent’s mother’.

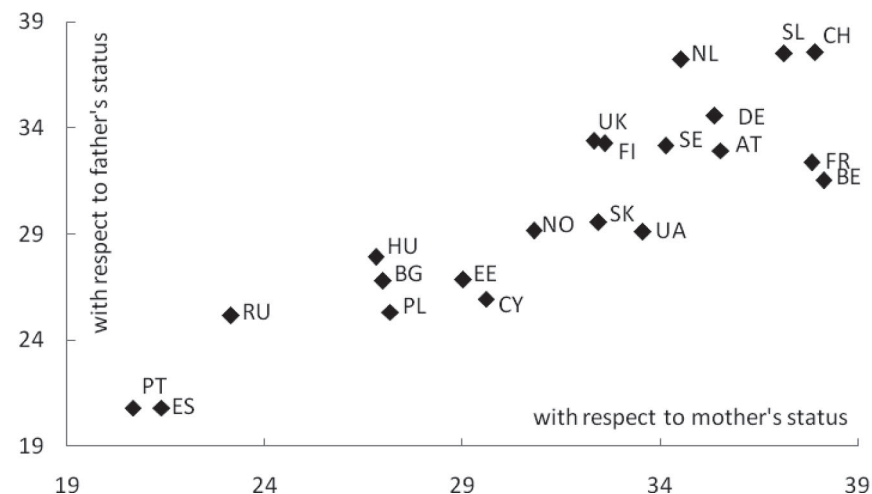
The order of the selected countries in *Figure 4* corresponds to the randomness, with which intergenerational social mobility occurs in the given society. In other words, the lower the H_N the less volatile the society is (i.e. children’s chances are less dependent on their parents’ achievements) and vice versa.

According to the results Russia is once again situated near the utmost side of the axis, yet surrounded by the same company of countries: Portugal, Hungary, Bulgaria and Poland. The more general view of the situation gives an impression that intergenerational socio-occupational mobility in the post-socialist countries tends to be less volatile than in the developed countries of Western Europe. The only exception is probably Estonia, where social mobility appears to be quite high. Anyhow the general result corresponds to what we have claimed in the theoretical analysis.

The most expected argument against such interpretation of the results demonstrated above is that the less predictable intergenerational social shifts originate from the substantial re-arrangement of the socio-occupational structures in those countries, which have completed a transition to a post-industrial phase of their development. This argument suggests a decrease in the share of employed in lower-status occupations (by large, physical labour), while at the same time an increase in the share of higher-status occupations first of all due to a rise of the tertiary sector (service sector). According to this it would further be reasonable to suggest that the higher volatility of socio-occupational statuses in the more developed countries occurs because of the fact that the previous generation was more likely to be engaged in lower-status occupations. Nevertheless, the empirical analysis gives us a different picture (see *Figure 5*).

As shown in the figure, having a lower socio-occupational status than that of parents happens more often in the more developed countries of Europe rather than in the post-socialist states, and two South European states – Spain and Portugal, which has already been discussed above in the context of their

particular social structure. As for Russia, it again demonstrates the least optimistic results with respect to its regime of social mobility.



Abbreviations: PT-Portugal, ES-Spain, RU-Russia, HU-Hungary, BG-Bulgaria, PL-Poland, EE-Estonia, CY-Cyprus, NO-Norway, SK-Slovakia, UA-Ukraine, UK-Great Britain, FI-Finland, SE-Sweden, DE-Denmark, AT-Austria, NL-Netherlands, FR-France, BE-Belgium, SL-Slovenia, CH- Switzerland.

Figure 5. The intensity of downward intergenerational socio-occupational mobility (as a share (%) of respondents, who possess lower socio-occupational statuses rather than their parents)¹¹

Against the background of the earlier results, according to which the social stratification in the more developed Western countries is a more meritocratic process that is mediated by an efficient labour market, the relative socio-occupational ‘immobility’ in the larger part of the post-socialist states does not appear as a random fact; moreover, it can be regarded as a clear evidence of the ‘estate’-like character of their social inequality.

¹¹ The occupational statuses of respondents and their parents were aggregated into three significantly distinct socio-occupational groups as follows: *the upper middle and upper class* (higher-grade professionals, semi-professionals, managers and administrators), *the intermediate class* (office clerks, salesmen and lower-grade technicians), *the lower class* (agricultural and industrial workers, various elementary occupations). For a more detailed algorithm see *Appendix 3*.

Implications for further research

In this first attempt I have tried to analyze the differences in the character of social and economic inequality of some post-socialist states, including Russia, and compare them to Western countries. In particular, the results of this research have shown that the specific character of social inequality, which emerges from interference of underdeveloped elements of class differentiation with an 'estate' hierarchy, is not random: it appears to be a very characteristic feature of countries, whose social structure has a track of influence from what has conceptually been referred to as *etacratism* – a particular mode of social and economic organization of society. On the other hand, it is clear that the stratification process, which occurs in the more developed Western countries, is based on industrial (or post-industrial) class-based differentiation (i.e. based on division of labour and differences in employment status).

Yet these results are to be regarded only as preliminary steps towards the more grounded evidence of diverging stratification processes in Western and Eastern Europe. There is still much work ahead to provide more accurate accounts of the findings that were discovered with entropy analysis. My future work in this direction would be concentrated on producing particular tests based on multivariate analysis of a series of corresponding models. Nevertheless, I do consider the rather unconventional method of testing validity of classification schemas via entropy analysis as a practical and useful tool for diagnosing potential clusterings of cases in multidimensional systems. This is especially true for sociological research, where the scholars often deal with variables that represent nominal scales, to which this method is particularly appropriate.

Also after getting introduced myself to the empirical capabilities of the *European Social Survey* and developing further theoretical reasoning of the principles that govern the processes of social inequality in various societies, I have developed a number of secondary hypotheses that could be tested in future studies. The general idea, which lies beneath them, is a suggestion that in societies based on modes of production other than industrial or post-industrial (statist, traditionalist, etc.) the greater share of social and economic differences among the population would emerge from non-class principles of differentiation (gender, race, ethnicity, etc.).

At the same time it has become evident that *European Social Survey* data has certain limitations with respect to a more advanced research of social stratification. By these particularly I mean the absence of data on such impor-

tant aspect of social reproduction as intragenerational dynamics of socio-occupational status (career mobility); the rather poor data on the ownership of various economic assets and private property (estate, means of production, various financial securities, etc.); and little information about the inclusion of individuals into social networks that provide access to other forms of resources, i.e. social capital, that is a particularly important aspect of stratification in Eastern societies.

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Appendix 1. Entropy Analysis

The following edition of entropy analysis is given in complete correspondence with its previous versions as provided in [Shkaratan, Yastrebov 2010; Sergeev 2002; Taganov, Shkaratan 1969; Shkaratan 2007a]. If we assume that some n -dimensional space filled with cases meets some normalization requirement, it can be regarded as a probability density of n -dimensions. The corresponding probabilities can thus be defined as

$$P_{ij\dots l} = \frac{n_{ij\dots l}}{m} \quad (1)$$

where m represents the maximum capacity of the $\{K_{ns}\}$ statistic, while $n_{ij\dots l}$ is a number of certain elements of this statistic, which reside at location $\{ij\dots l\}$. Such definition of $P_{ij\dots l}$ allows for automatic fulfillment of normalization requirement.

According to Khinchin's theorem the following value of entropy H , which is a value for uncertainty of the n -dimensional probability density, can be used to measure the uncertainty of distribution of cases (i.e. the vectors of $\{K_{ns}\}$):

$$H = - \sum_{ij\dots l} P_{ij\dots l} \log_2 P_{ij\dots l} \quad (2)$$

It is trivial that value H reaches its maximum, when the distribution occurs equally across the n -dimensional space, i.e. at the state of its complete homogeneity:

$$P_{ij\dots l} = \frac{1}{r} \quad (3)$$

where r is a maximum number of possible cells. Thus, value H depends on the maximum number of cells, which may differ if different dimensions are used, since variables (dimensions) would certainly have different gradations. To overcome this constraint in order to provide a comparable measure of uncertainty for different sets of dimensions it would be reasonable to develop some function of entropy that would not depend on the maximum number of cells.

There are options as to how to obtain such function. However, here the following adjustment is suggested. It is based on the idea of the relative deviation of entropy from its maximum value. The maximum value of entropy

for the n -dimensional space, where each dimension is represented by a variable with S_i possible discrete values ($i=1,2,\dots,n$) equals to

$$H_{\max} = \log_2 \prod_{i=1}^n S_i \quad (5)$$

The deviation of entropy from its maximum value H_{\max} equals to:

$$H_{\max} - H = \log \prod_{i=1}^n S_i + \sum_{(j\dots l)} P_{j\dots l} \log P_{j\dots l} \quad (6)$$

The value of the relative deviation of entropy from its maximum value (H_N) or, in other words, *the measure of heterogeneity*, can be obtained from (5) and (6):

$$H_N = \frac{H_{\max} - H}{H_{\max}} = \frac{\log \prod_{i=1}^n S_i + \sum_{(j\dots l)} P_{j\dots l} \log P_{j\dots l}}{\log \prod_{i=1}^n S_i} \quad (7)$$

It is clear that the variation of H from 0 to its maximum values would otherwise correspond to the variation of H_N from 1 (the completely regular distribution of cases) to 0 (the completely chaotic distribution of cases).

Appendix 2. ESS Questionnaire (questions and values used)

Variable	Question	Possible values (including additional adjustments)
<i>occupation</i>	the 1-digit ISCO88 code used to code occupations	LEGISLATORS, SENIOR OFFICIALS AND MANAGERS; PROFESSIONALS; TECHNICIANS AND ASSOCIATE PROFESSIONALS; CLERKS; SERVICE WORKERS AND SHOP AND MARKET SALES WORKERS; SKILLED AGRICULTURAL AND FISHERY WORKERS; CRAFT AND RELATED TRADES WORKERS; PLANT AND MACHINE OPERATORS AND ASSEMBLERS; ELEMENTARY OCCUPATIONS; ARMED FORCES
<i>level of education</i>	«What is the highest level of education you have achieved?»	country-specific categories were reduced to the following ones: Not completed primary education Primary or first stage of basic education Lower secondary or second stage of basic Upper secondary Tertiary education
<i>type of contract</i>	«Do/did you have a work contract of...»	«...unlimited duration»; «...limited duration»; «do/did you have no contract».
<i>employment status</i>	«In your main job are/ were you...»	«...an employee»; «...self-employed»; «...working for your own family's business».
<i>extent of authority</i>	«How many people are/ were you responsible for [in your main job]?»	none; 1-10; 11-50; 51-100; 100-500; over 100.
<i>income</i>	«Which of the descriptions on this card comes closest to how you feel about your household's income nowadays?»	«Living comfortably on present income»; «Coping on present income»; «Finding it difficult on present income»; «Finding it very difficult on present income».
<i>risk of unemployment</i>	«Have you ever been unemployed and seeking work for a period of more than three months?»	«Yes»; «No».

Appendix 3. Recoding Occupational Status of Respondents and their Parents into Single Scale

Original coding of occupational status of parents	ISCO-88 coding of occupational status of respondents
The upper and upper middle class	
1 Traditional professional occupations 2 Modern professional occupations 4 Senior manager or administrators	1 Legislators, senior officials and managers 2 Professionals 3 Technicians and associate professionals
The intermediate class	
3 Clerical and intermediate occupations 8 Middle or junior managers	4 Clerks 5 Service workers, shop, market sales workers
The lower class	
5 Technical and craft occupations, farmer 6 Semi-routine/manual/service occupations 7 Routine manual and service occupations	6 Skilled agricultural and fishery workers 7 Craft and related trades workers 8 Plant and machine operators and assemblers 9 Elementary occupations

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В статье рассматриваются доминирующие в нынешней социологической литературе теоретические подходы к анализу социального неравенства. Несмотря на незначительные концептуальные расхождения, все эти подходы основаны на предположении о том, что развитие современных обществ, в том числе постсоциалистических, осуществляется в соответствии с логикой развития основных институтов капитализма: рынка и частной собственности. Однако автор допускает, что эти подходы могут обладать слабой объяснительной возможностью применительно к обществам, культурно-исторический контекст развития которых способствовал воспроизводству альтернативных форм социально-экономической организации, препятствующих развитию капиталистических институтов. В данном исследовании сделана попытка эмпирически обосновать это предположение, используя материалы 3-й волны Европейского социального исследования (2006 г.).

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сравнительный анализ России и Европы**

(на английском языке)

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