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HOME

Revista ESPACIOS

ÍNDICES / Index

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Vol. 39 (Number 49) Year 2018. Page 30

Role orientations of college and school students (based on the data of sociological study)

Orientaciones de los roles de los estudiantes universitarios y escolares (según los datos del estudio sociológico)

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Contents

- 1. Introduction
- 2. Methods
- 3. Background
- 4. Results
- 5. Conclusion

References

ABSTRACT:

Present article addresses such category of the sociological science as a social role, its content and position in the internal world of an individual, as well as the extent to which it has been studied by the sociology. Civilizational and cultural changes, and changes in the cultural systems lead to the change of the role and the content of its activity. New phenomena in the individuals' role preferences manifest themselves during the establishment of the modern innovative-informational society (Stegniy 2017, Toschenko 2008). It is mostly observed in the young people, since they are the social-demographic group that is the most susceptible to perceiving changes. There is a mutual connection between the role behavior of the youth and basic values, social affirmations, life plans, lifestyle and behavioral strategies. According to the results of the empiric sociological study, which was conducted among college students and students of 10-11th grade, we established the level of their affiliation to certain social roles and created their ranged array. Furthermore, we revealed the specifics of the roles' structure in each studied group of young people, as well as the interaction between moral values and role expectations. We analyzed how youth evaluated the

RESUMEN:

El presente artículo aborda dicha categoría de la ciencia sociológica como rol social, su contenido y posición en el mundo interno de un individuo, así como la medida en que ha sido estudiada por la sociología. Los cambios de civilización y cultura, y los cambios en los sistemas culturales conducen al cambio del rol y el contenido de su actividad. Los nuevos fenómenos en las preferencias de rol de los individuos se manifiestan durante el establecimiento de la moderna sociedad de información innovadora (Stegniy 2017, Toschenko 2008). Se observa principalmente en los jóvenes, ya que son el grupo sociodemográfico más susceptible de percibir cambios. Existe una conexión mutua entre el comportamiento de los jóvenes y los valores básicos, las afirmaciones sociales, los planes de vida, el estilo de vida y las estrategias de comportamiento. De acuerdo con los resultados del estudio sociológico empírico, que se realizó entre los estudiantes universitarios y entre los grados 10 y 11, establecimos el nivel de su afiliación a ciertos roles sociales y creamos su rango de rango. Además, revelamos los aspectos específicos de la estructura de los roles en cada grupo de jóvenes estudiados, así como la interacción entre los valores morales y las

influence of market relationships on their role preferences by highlighting the specifics of such influence and addressed the stratified position of an individual in such social environment. As a separate issue, we addressed young people's comprehension of the functions of the state in the development of role activity in the modern Russian society; we also analyzed their attitude towards the moral norms, social and legal laws. The article proposes a specific classification of life roles in college students and students of 10-11th grades and reveals the interaction between comprehension of life roles and activity.

Keywords: Social role, personality, role of an individual, role behavior, role orientations, role preferences, structure and content of life roles, youth, students, high-school students.

expectativas de los roles. Analizamos cómo los jóvenes evaluaron la influencia de las relaciones de mercado en sus preferencias de rol, destacando los aspectos específicos de dicha influencia y abordando la posición estratificada de un individuo en dicho entorno social. Como un tema aparte, abordamos la comprensión de los jóvenes sobre las funciones del estado en el desarrollo de la actividad de rol en la sociedad rusa moderna; También analizamos su actitud hacia las normas morales, leyes sociales y legales. El artículo propone una clasificación específica de los roles de vida en estudiantes universitarios y estudiantes de 10-11 grados y revela la interacción entre la comprensión de los roles de vida y la

Palabras clave: rol social, personalidad, rol de un individuo, comportamiento de rol, orientaciones de rol, preferencias de rol, estructura y contenido de roles de vida, jóvenes, estudiantes, estudiantes de secundaria.

1. Introduction

Change of society type significantly affects the individuals and leads to the changes in their social roles and role behavior. Establishment of informational and network society raises a question about the role of personality and its role structure within such society (Stegniy 2015). The most rapid changes of role orientations occur in the most dynamic social group, i.e., the youth.

Sociological research of role orientation in the youth allows predicting possible behavior of young people during the construction of life strategies and realization of their place in the society and social groups. Being a dynamic group, the youth are highly susceptible to the changes that occur in the society, and corresponds itself with those changes. Such dynamics are defined by the intensive society development, as well as by the social and psychological traits of the youth itself. In our opinion, high school students are the most interesting social group to study; however, while the college students are studied relatively regularly, high school students are often neglected by the researchers. Besides, more robust life plans and identification with certain groups take place in high school.

We would like to point out that such personality component as a social role has not been studied extensively in the past decades of the sociological research. In the words of I. Shubrt, the category of social role became a forgotten topic of the sociological science (Shubrt 2017). If one has ideas about the social roles' structure, which develops in the young people's minds, one can use this information in the social work with the youth and in establishing youth policies.

When social relations change under the influence of technological, political and economic transformation, these changes significantly affect the youth by changing the hierarchy of the social roles. This is particularly relevant for those generations of the young people that live in the conditions of drastic changes of these relations. Throughout the past historical periods, role orientations were less labile and created robust hierarchies; in the modern informational society we can see the destruction of this robust hierarchy. It manifests in the decreased precision of orientation towards certain professions, types of activity and family roles. Young people experience less pressure from the older people, less succession of values, many of which are simply considered to be outdated.

2. Methods

The data presented in this article were obtained by performing two sociological studies during the first half of the 2017. The first empiric sociological study was conducted among the students of Perm National Research Polytechnic University and included 754 respondents that studied at different departments and educational programs of both humanitarian and technical specialties. The most suitable option was to conduct a quantitative survey, considering the specifics of the object (Cicourel 1964, Duncan 1966). Apart from the

specialty, other key factors included: gender, age, academic year, level of personal and family income, place of residence before the beginning of the university education, etc. In our opinion, the selected factors were the most relevant ones for addressing the selected issue (Yadov 2003). The respondents were recruited in the education institution that was the leading higher-education institution of the region and was typical for noncapital regions of the country. The second empiric study was conducted among the high school students in the general education schools. High school students were the students of 10-11th grades of the schools in the Perm region (N=258). Collection of the primary information was conducted by personal formalized survey in the respondents' place of education. 96,6% of the respondents returned the surveys. The sample was representative, i.e., reproducing the main parameters of the general population. During the study, the respondents were asked questions about role identification, role preferences, attitude towards inequality, life plans, etc. The responses allowed revealing the role structure in college and high school students.

3. Background

As an object of sociological analysis, the youth came into the focus of attention during the "student revolutions" of the end of the 60s – beginning of the 70s of the XXth century. Not only the scientific community, but also the society came to realize that the differences between generations and their models of behavior were growing between the youth and older generations (Dwyer & Wyn 2001, Byzov et al. 2003, Zhuravleva 2006).

Youth, as a group, are addressed from the perspective of the three main paradigms: biological, social and cultural (Weinstein 1994, Galland 2006). They explain the specifics of the young people's social status and the corresponding model of role behavior. Social and cultural paradigms are tightly connected. For example, the work of M. Mead (Mead 1970), which presented the youth within the conflict of generations, mixed cultural and social paradigms. The work stated that the young people relied less on the older generations, and therefore, did not reproduce the past culture, which was not relevant for them. In the past historic periods, the youth wanted to become adults as fast as possible, to copy the adults' experience and their behavioral models, because they were relevant. In the modern societies, the relevance of adults' knowledge is not obvious, which aggravates intergeneration conflicts and different role orientation. Young people's role identification is often explained by the postmodern theories of subcultures (Miles 2000, Blackman 2005, O'Donnell 2010).

Changes of the job market and urbanization processes change young people's lifestyle and their identification with family, territory of residence and peers (Miles 2000, Schor 2004). Considering that the modern generation of young people is significantly affected by the information technologies, we also have to consider that they affect the role identification. Young people affiliate not only to the communities that are geographically linked to certain places, such as schools, colleges, universities, shops and clubs, but also to the virtual communities, participation in which can also cause corresponding role identification.

4. Results

The conducted sociological survey allowed revealing a specific hierarchy of the social roles, and college and high school students' affiliation to a certain system of life roles (Table 1).

Table 1Level of affiliation to social roles (%)

		College students			Students of 10-11th grades		
Life roles	Less	Less Sometimes more, sometimes less		Less Sometimes More, sometimes less		More	

Students (college, high school)	1,9	22	76,1	2,7	8,9	88,4
Member of parents' family	10,3	25,8	63,9	11,7	19,9	69,4
Member of one's own family	34,1	19,7	46,8	31,4	18,9	49,7
Resident of the house in which you live	32,9	33,4	32,9	10,8	16,9	72,3
Resident of the district in which you live	77,8	31,8	20,7	21,6	26,2	52,2
Citizen, resident of Perm, Lysva	39,3	34,2	26,5	34,5	17,4	48,1
Visitor of certain city institutions	39,8	46,4	13,8	27,1	42,9	19,7
Russian citizen	14,6	28,6	56,8	9,8	16,9	73,3
Member of one's own ethnic group (nationality)	24,6	29,7	45,7	18,1	26,6	55,2
Member of a party, social organization	90,7	5,9	3,4	76,3	11,8	11,9
Friend	4,5	19,6	75,9	7,7	28,7	63,6
Citizen of the world	32,1	30	37,9	22,3	31,2	46,5
Patriot	27,9	44,2	27,9	26,8	35,4	37,8
Worker, employee of an organization	64,9	23,4	11,7	68,9	19,9	11,2
Parent (father, mother)	76	9,9	12,1	85,2	14,3	0,5
Child (son, daughter)	16,9	19,2	63,9	10,1	10,9	79,0
Entrepreneur, owner of one's own business	74,6	15,8	9,6	7,9	15,6	5,4

By analyzing the role preferences of college students and students of 10-11th grades of general education schools (see table 1), we can state that both social groups of young people have developed a preference towards a system of social roles, rather than a single role, which is a sign of their social maturity, i.e., both groups have already developed and are ready for their future activity almost in any area. However, the level of preference of life roles in the studied groups has certain specific traits.

To this aim, we addressed the preference of life roles first in college students and then in the students of 10-11th grades. The following life roles were the most preferred in college students (% of the respondents among college students):

- Student 76,1%;
- Friend 75,9%;
- Child (son, daughter) 63,9%;
- Member of parents' family 63,9%.

These role preferences were selected by ¾ of the respondents. They completely correspond with the roles that they currently perform as the university students, friends, sons or

daughters, or members of parents' families.

Students' preference of the following roles was slightly less present, but still significant:

- Russian citizen 56,8%;
- Member of one's own family 46,8%;
- Member of one's own ethnic group (nationality) 45,7%.

These preferences were selected by every second student. Such choice is rather predictable, because the students are already performing these roles and have socially adapted to them, which is normal for a citizen of his/her country.

Every third student selected the affiliation to such roles, as:

- Citizen of the world 37,9%;
- Resident of the house in which one lives 32,9%.

Every fourth student selected the affiliation to such roles, as:

- Patriot 27,9%;
- Citizen, resident of Perm 26,5%;
- Resident of the district in which one lives 20,7%.

Only every tenth of the students pointed out the affiliation to such roles, as:

- Visitor of certain city institutions 13,8%;
- Worker, employee of an organization 11,7%;
- Parents (father, mother) 12,1%;
- Entrepreneur, owner of one's own business 9,6%.

The students are just starting to encounter those roles, which leads to such weak affiliations to them.

Only 3,4% of students pointed out their role preferences related to political activity, membership in parties and social organizations. On the one hand, it can be explained by students' educational role, since it is their primary role in the current moment, and the lack of time for participating in the political life.

On the other hand, the modern Russian society lacks social-political youth organization, which would provide political socialization among students. This leaves the young people unprepared for participating in social and political life of the country and performing the political role. Students' role preferences are certainly defined by their status and their social maturity, and they are related to students' life strategies (Tishkov and Stepanov 2014) and new phenomena in axiological orientations (Bannikova et al. 2013, Pavlov & Anisimov 2016).

Role preferences of students of 10-11th grades are different from college students. High school students primarily prefer such roles, as:

- Student 88,4%;
- Child (son, daughter) 79,0%;
- Russian citizen 73,3%;
- Resident of the house in which one lives 72,3%;
- Member of parents' family 69,4%;
- Friend 63,6%.

These role preferences were stated by the ¾ of high school students that participated in the survey. Compared to the preferences of college students, high school students have more robust tendencies and the number of the roles they prefer is higher (see table 1).

Every second school student chose the following roles:

- Member of one's own ethnic group (nationality) 55,2%;
- Resident of the district in which one lives 52,2%;
- Member of one's own family 49,7%;
- Citizen, resident of Lysva 48,1%;
- Citizen of the world 46,5%;

- Patriot - 37,8%.

The structure of role preferences chosen by every second school student is somewhat larger than in college students. Moreover, these role preferences are represented much better in school students compared to college students, especially when it comes to such roles as resident of a district, citizen, resident of Lysva or Perm, citizen of the world, and member of an ethnic group (see table 1). To some extent, it can be explained by the specifics of city environment of college and school students. We gave the survey to the college students from a city with several million people, while the school students were in the city with the population of 70 thousand people.

School students demonstrated the weakest affiliation to such life roles, as:

- Member of a political party or social organization 11,9%;
- Worker, employee of an organization 11,2%;
- Parent (father, mother) 0,5%.

The school students had minimal orientation towards these roles. It can be partially explained by the fact that the students of 10-11th grades have not directly encountered these types of activity yet; however, they have presented a certain level of knowledge about them, and they understand that they will have to solve these tasks in the future. Their role preferences are related to the life plans (Konstantinovskiy & Popova 2015).

The analysis of role preferences in college students of 2-3rd academic years in a city with a million-plus population and school students of 10-11th grades in a city of medium size primarily has shown that there are no essential differences between the role preferences of these two groups. Secondly, there are specific differences between these groups, which concern the structure defined by their status and type of the city. Thirdly, high school students have more exaggerated and idealized role preferences compared to college students. Despite the fact that the controversy between the role preferences and the real life is represented differently in each group, both groups are relatively ready for performing their social roles in the modern society. This process will largely rely on how they understand the modern society, the essence of which is defined by the market relations and the market.

Table 2College and high school students' evaluation of market relations

In their opinion, the market is - (% of respondents)	College students	Students of 10- 11th grades
 Desire of profit, power, increase of inequality, exploitation of people by people, decrease of the quality of life in the main part of the population 	4,8 %	13,8 %
 Field for the initiative, entrepreneurship, society of independent manufacturers, road to prosperity 	71,9 %	65,6 %
Reality that cannot be changed, so one just has to adapt to it	23,3 %	20,6 %

Despite some differences between college and high school students in the understanding of the market essence, they do not diverge (Table 2). Furthermore, they underestimate the role of power, increase of inequality, exploitation of people by people and decrease of the quality of life in the main part of the population, especially considering that these tendencies increase in the world. Currently in Russia 20 million people live below the poverty line, around 6% of the population is unemployed, and the fortune of 10% of the richest increased, while the fortune of the 10% working for the lowest salary decreased. It is also necessary to consider that, if the 10% of the people with the highest salary and 10% with the lowest salary are removed, the gap between the remaining group is 16,5 times (Kolbasin 2017).

Around ¾ of the college and high school students that participated in the survey stated that the essence of the market was freedom for initiative, entrepreneurship, society of

independent manufacturers and road to prosperity; all of this was correct, but they highly overestimated the role of those factors in the market. It is true that their role dominates in the market society, but the question is whether they solve the processes that take place in the modern postindustrial informational-innovative society. The answer is, certainly no. Since no alternative is being proposed, it is not surprising that every fifth student perceives the current market as a given that cannot be changed. Such young people's belief in the transfer of the present to the future is related to the fact that they are not aware of the differences between them, and they do not have a mindful predictive orientation towards the social future. The future society and the market will be the way they will be created. They are not standing still, but rather change drastically depending on people's demands, both in the present and in the future. The dynamics of the market and the society will depend on the people's place in them and on the regulative role of the state in those processes. The market and the state do not contradict each other, but rather complement one another.

We further present the students' opinion about it (% of the respondents):

Table 3High school and college students' ideas about the role and place of the state

Ideas	College students	Students of 10- 11th grades
The state has to guarantee employment and the main material and social goods	55,9 %	60,5 %
Everyone has to rely on oneself instead of the state	23,6 %	21,3 %
 The state has to help people, but only the weak and the unprotected ones (disabled, elderly and children) 	20,4 %	18,2 %

College and high school students do not differ in the understanding of the place and role of the state in the people's life in the society (Table 3). The youth understand correctly that the main warrantor of the work, as well as of the material and social status has to be the state. These guarantee for each person is stated in the main normative document for the society, the state and the individual.

As for the help from the state, both college and high school students rightfully note that such help has to be provided to the special, unprotected fractions of the population – the disabled, the elderly, the children and other groups.

As for the statement that everyone has to rely on oneself instead of the state, it was selected by every fourth respondent in each group; this can take place in social group that constitutes 20-30% of the society. These are wealthy people, who are therefore socially protected, but they also need strict guarantees from the state that concern their status and activity.

The society, where around 60% of the GDP is produced directly in the governmental sector, and the other 40% is produced indirectly through the state and under its control, is a witness of the fact that the state's role in the market society does not decrease, but rather changes its status, functions, content and role. The new model of the state order raises the question about a new model of the state. Moreover, only the state can introduce and develop the new model of the state order, and other political and social institutions will follow. This hypothesis of "social state – developed society" is currently realized in the most developed countries around the world.

Individual role preferences are based on the moral values that are established in the young age. To this end, it is interesting to analyze college and high school students' attitude towards the norms, their place and role in the future activity of the youth. We received the following answers to the question: "Do you think that it is possible to succeed in life without

breaking the law and moral norms?" (see Table 4).

Table 4 Evaluation of reaching success

Answers	College students	Students of 10-11th grades
No	7,9 %	9,7 %
Unlikely	33,7 %	29,8 %
Yes	58,4 %	60,5 %

There are no crucial differences between the college students of 2-3rd academic years and school students of 10-11th grades. In both groups, every tenth respondent thinks that it is impossible to succeed in life without breaking the law and moral norms; every third respondent thinks that it is unlikely to succeed in life without breaking the law and moral norms, and only 60% of the respondents think that one should not break the law and defy the moral norms. This group dominates among the respondents, which definitely gives hope for the future, but a rather large group among this fraction of the youth doubts that question and thinks that it is possible to break the law and the moral norms. This characterizes the current state of the moral climate in the society in general and the state of the moral education in general education schools and higher education institutions. It fits in the lifestyle, axiological priorities and moral values of the youth of the new Russia (Youth of the new Russia 2017, Belyaeva 2010).

5. Conclusion

The main conclusion of the present study is the fact that there are four groups of college students and students of 10-11th grade, which are separated by their readiness for performing the life roles.

The first group consists of those college and high school students whose role preferences correspond with the development tendencies of the modern society.

The second group includes college and high school students whose role preferences partially correspond with the tendencies of the establishment of the informational-innovative society.

The third group contains the students whose role preferences are unrelated to the development perspectives of the modern society.

The fourth group includes college and high school students who do not have well-developed role preferences yet. It is not surprising, since in some people they develop at the age of 18-20, in other people – at the age of 20-25, and in others – at the age of 26-30 or even later. This depends on the process of a person's socialization and individualization. Development of the role preferences in correspondence with the development tendencies of the modern Russian society in the young people is a crucial strategic task of the state.

References

Bannikova L.I., Boronina L.N., Vishnevskiy Yu.R. (2013). Novye yavleniya v tsennostnykh orientatsiyakh uralskogo studenchestva. [New phenomena in the axiological orientations of the Ural students]. Sotsiologicheskie issledovaniya, 2, 58-68.

Belyaeva E.V. (2010). Nravstvennye tsennosti epokhi postmoderna [Moral values of the postmodern era]. Filosofskie nauki, 1, 60-64.

Blackman S. (2005). Youth subcultural theory: a critical engagement with the concept, its origins and politics, from the Chicago school to postmodernism, Journal of Youth Studies, 8(1), 1-20.

Byzov L.G., et al. (2003). Bazovye tsennosti rossiyan: sotsialnye ustanovki. Zhiznennye

strategii. Simboly. Mify. [Basic values of the Russians: social beliefs. Life strategies. Symbols. Myths]. Mocsow: Dom intellektualnoy knigi.

Cicourel A.V. (1964). Method and measurement in sociology. New York, NY: The Free Press.

Duncan O.D. (1966). Path analysis: sociological examples. American Journal of Sociology, 72, 1-16.

Dwyer P. and Wyn J. (2001). Youth, Education and Risk: Facing the Future. London: Routledge Falmer.

Galland O. (2006). Sociologie de la jeunesse [Sociology of youth]. Paris: Armand Colin.

Kolbasin V. (2017). Chem grozit sotsialnoe rassloenie. [What are the dangers of social segregation]. Argumenty i fakty, 8, 11.

Konstantinovskiy D.L. and Popova S.S. (2015). Zhiznennye plany shkolnikov. [Life plans of school students]. Sotsiologicheskie issledovaniya, 11, 37-48.

Mead M. (1970). Culture and Commitment. A study of the Generation Gap. NY.

Miles S. (2000). Youth lifestyles in a changing world. Buckingham: Open University Press.

Molodezh novoy Rossii: obraz zhizni i tsennostnye prioritety: Analiticheskiy doklad. [Youth of the new Russia: lifestyle and axiological priorities: Analytic report]. (2017). Institut sotsiologii RAI, M., 143 p.

O'Donnell M. (2010). Generation and Utopia: Using Mannheim's Concepts to Understand 1960s Radicalism. Young, 18(4), 367–383.

Pavlov B.S. and Anisimov S.A. (2016). Ekonomicheskoe povedenie molodezhi na Urale: sotsialno-psikhologicheskiy analiz. [Economic behavior of the young people at the Ural: social and psychological analysis]. Ekaterinburg: Institut ekonomiki UrO RAN.

Schor J.B. (2004). Born to buy. The commercialized child and the new consumer culture. New York: Scribner.

Shubrt I. (2017). Sotsialnaya rol – zabytaya tema sotsiologii. [Social role is a forgotten topic of sociology]. Sotsiologicheskie nauki, 6, 15-24.

Stegniy V.N. (2015). Lichnost v informatsionno-innovatsionnom obschestve: monografiya. [Personality in the informational-innovative society: a monograph]. Perm: Izd-vo Perm. nats. issled. politekhn. un-ta, 448 p.

Stegniy V.N. (2017). Kultura v informatsionno-innovatsionnom obschestve: monografiya. [Culture in the informational-innovative society: a monograph]. Perm: Izd-vo Perm. nats. issled. politekhn. un-ta.

Tishkov V.A. and Stepanov V.V. (2014). Rossiyskoe studenchestvo: identichnost, zhiznennye strategii I grazhdanskiy potentsial [Russian studentship: identity, life strategies and civil potential]. Moscow: IEARAN.

Toschenko Zh.T. (2008). Paradoksalnyi chelovek. Izd. 2-e, pererab. i dop. [Paradoxal human. 2nd edition]. Moscow: YUNITI.

Weinstein D. (1994). Expendable youth: the rise and fall of youth culture, in Adolescents and their Music: If it's Too Loud, You're Too Old. (Ed. J. S. Epstein). Garland, New York.

Yadov V.A. (2003). Strategiya sotsiologicheskogo issledovaniya. Opisanie, obyasnenie, ponimanie sotsialnoy realnosti. [Strategy of sociological research. Description, interpretation and comprehension of the social reality]. Moscow: Dobrosvet.

Zhuravleva N.A. (2006). Dinamika tsennostnykh orientatsiy lichnosti v rossiyskom obschestve. [Dynamics of individuals' axiological orientations in the Russian society]. Moscow: Institut psikhologii RAN.

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Revista ESPACIOS. ISSN 0798 1015 Vol. 39 (Nº 49) Year 2018

[Index]

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