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ПРАВОВЫЕ И СОЦИАЛЬНЫЕ
АСПЕКТЫ СУЩЕСТВОВАНИЯ
И ИССЛЕДОВАНИЯ
ПРОФЕССИЙ ВО
ФРАНЦИИ
И В РОССИИ

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NON-LINEARITY AND SYNERGISM IN SOCIOLOGY OF PROFESSION

Abstract. Synergetic style of thinking - a style of the thinking in the postnonclassic sciences. It represents the modern stage of the development of the system and cybernetic thinking, many elements which are subjected to essential alteration. "Non-linearities" - a fundamental conceptual node of the new paradigm.

Study of "Young specialist on the labor market" (I.B. Britvina and etc.), the data of which we use in the study of the non-linear nature of sociological information, was carried out in 2007.

In our example from the questionnaire of the young specialist were chosen 75 estimations with interval scale, characterizing on answers: the role of the educational institution in training the specialist, features gained by the graduate at the period of the education, characteristics of the educational institution and professions, characteristics of the enterprise (the job place) and their role in labor activity, characteristics of the job position and their role in labor activity. There were estimated expectations before entering the University and before getting a job, real results and personal importance of the feature.

We note the motivation of need of the study of the simplest non-linear dependencies that demonstrate their quantity under structured consideration data. If we choose the dependencies with the coefficient of correlations more 0.5 (our factor of the connection strenght also more 0.5), that such dependencies exists 123. While non-linear dependencies with the factor of the connection strenght more 0.5 and insignificant coefficient of correlations (at least once modulo in two factor of the connection strenght less) have 385. Thereby, the simplest (the dependencies with maximum and minimum, monotonous, but not linear) of the non-linear dependencies turned out to be in three times stronger than linear.

But particularly significant that linear dependencies exist practically only within the framework of separate question block (104 dependencies from 123), where dependencies are forecasted already contents of the questions itself. Crossing dependencies for the parameter from different question block far less (19 from 123). But with coefficients of correlations more 0.6 there were no such dependencies.

Signifies, it is possible to speak of possibility of the synergetic paradigms in sociological science, directed on the investigation of non-linear effect.

We offer a new approach to the concept of statistical relation (non-linear and linear) in sociological research by means of usage the generalized version of a method of multiple comparison for quantile splittings of the data (objects) on each measured parameter. We shall stop for a substantiation of necessity of investigating of the elementary non-linear dependences with a demonstration of their quantity by the example of a sociological research.

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Key words: linear, non-linear, dependence, synergetic, professions.

Synergetic style of thinking - a style of the thinking in the postnonclassic sciences. It represents the modern stage of the development of the system and cybernetic thinking, many elements which are subjected to essential alteration. "Non-linearities" - a fundamental conceptual node of the new paradigm.

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In sociological research a correlation analysis is widely used. And, therefore presence or absence of dependence basically is understood as a presence or absence first of all linear dependence as the most simple and evident. And when the variables are dichotomic the linear dependence becomes the only variant in general. Thus very frequently many interesting dependences (for interval variables), being non-linear, are missed since for them the coefficients of correlation are small on an absolute value and fit to a hypothesis about equalling to zero point of a coefficient of correlation.

Attempts to advance hypotheses (with the purpose of further check) about a particular kind of non-linear dependence result in the solution of separate particular problems (for two variables). Thus there is a problem of the form of the received functional dependence should be to interpret, to determine the qualitative contents, since in any case n of points it is possible to connect by a curve, presenting a polynomial to N -th power, and formally to have a functional dependence for any case (any interval data).

We offer the new approach to concept of statistical dependence (non-linear and linear) in sociological research (when variables are not dichotomic, but interval) by means of usage the generalized (or alternative version from three) version of a method of multiple comparison for quantile splittings of the data (objects) on each measured parameter, rejecting from preliminary formulating a hypothesis about a form of dependence (linear or any particular kind of non-linear dependence), i.e. for a studied matrix of the data are determined as forms of dependences and degree of their expressiveness on different sections of scales of considered variables.

In our example, the analysis of non-linear (and linear as a particular case) dependencies in the framework of concrete sociological research on each of the investigated interval parameter has been defined two quantile, dividing the totality of data on the triad. The result is a decomposition of aggregate data on the 225 ($225=75*3$, at 75 interval parameters) intercrossing groups.

For comparison of the given groups was used the generalized variant of the method of the multiple comparison for all ranked pairs "the chosen triad on parameter X - a parameter Y". As the result there was received the general distribution of such pairs with the determined "comparative weightiness" for them. If a quantity of the investigated parameter is N , so the selected quantum (the triads) on all parameter will $3*N$, but ranked pairs of the "chosen quantum (the triad) on parameter X - a parameter Y" - $3*N*N$. For convenience of using the information it is necessary to structure it.

To select three comparative weightiness, characterizing the dependency of the parameter Y from parameter X, from the general distribution $3*N*N$ ranked pairs "the chosen quantum (the triad) on parameter X - a parameter Y" in the beginning choose $3*N$ pairs referring to one parameter (so we get a distribution of importance of the parameter Y for all $3*N$ groups-quantum, determined for all considered parameter), but afterwards choose 3 groups-quantums on the parameter X. Thereby, we have chosen three comparative weightiness, displaying a comparative value of the parameter Y for three quantum (the triads) determined for parameter X. These three comparative weightiness is possible to consider as a model for dependencies of the parameter Y from parameter X.

For making a possibility to compare the results of estimation of relationships through the multiple comparisons with the result of the using of traditional correlation analysis we shall enter the factor of the connection strenght. The factor of the connection strenght of i - and j -parameter (the dependency of i -parameter from j -parameter), considered at the realization of the procedure of the multiple comparison of quantum (triads), we shall define the following expression:

$$SV_{ij} = |V_{ij}^3 - V_{ij}^2| + |V_{ij}^2 - V_{ij}^1|,$$

where V_{ij}^g – the comparative weightiness of i -parameter for g -quantums of j - parameter.

The value SV_{ij} for single correlation is defined both as quantity parameter, and amount of the quantum (the triads, quarts, quints) of the partition data set. Thereby it appears a necessity to

norm factors SV_{ij} in such way for the maximum for monotonous dependencies factor of the connection strenght, corresponding to a single correlation, was is 1. Then all considered above dependencies are possible to characterize the incorporated factor of the connection strenght SV_{ij} and interpret the strength of dependence on its value.

Study of "Young specialist on the labor market" (I.B. Britvina and etc.), the data of which we use in the study of the non-linear nature of sociological information, was carried out in 2007 by the grant of Administration (Government) of Kurgan area.

It was necessary empirically examine three sides of the process of employment, entering into interaction at the moment when the young specialists appears at the labour market, as its agent and as a carrier of those professional qualities, which he had received during the training in a particular primary, secondary or higher professional educational institution. This is the young specialist him/herself, professional school, where he/she studied and received a specific set of knowledge and skills, as well as a particular employer, materialized as the representative of "labour market". The direct agent of the market is the employer, as the representative of "customer", which directly estimates the level of preparedness specialist and makes a decision about his/her employment or deny this.

During the research there were questioned 494 young specialists, working in the city of Kurgan. The main criteria of differentiation of the sample population were educational institution where a specialist studied, as well as specialty, which he had received. Among the respondents - 348 female (70% of the sample population) and 147 male (30%) persons. There were interviewed young specialists, who graduated from the secondary special and higher educational institutions, and working at the moment in Kurgan.

In our example from the questionnaire of the young specialist were chosen 75 estimations with interval scale, characterizing on answers: the role of the educational institution in training the specialist, features gained by the graduate at the period of the education, characteristics of the educational institution and professions, characteristics of the enterprise (the job place) and their role in labor activity, characteristics of the job position and their role in labor activity. There were estimated expectations before entering the University and before getting a job, real results and personal importance of the feature.

We note the motivation of need of the study of the simplest non-linear dependencies that demonstrate their quantity under structured consideration data. If we choose the dependencies with the coefficient of correlations more 0.5 (our factor of the connection strenght also more 0.5), that such dependencies exists 123. While non-linear dependencies with the factor of the connection strenght more 0.5 and insignificant coefficient of correlations (at least once modulo in two factor of the connection strenght less) have 385. Thereby, the simplest (the dependencies with maximum and minimum, monotonous, but not linear) of the non-linear dependencies turned out to be in three times stronger than linear.

But particularly significant that linear dependencies exist practically only within the framework of separate question block (104 dependencies from 123), where dependencies are forecasted already contents of the questions itself. Crossing dependencies for the parameter from different question block far less (19 from 123). But with coefficients of correlations more 0.6 there were no such dependencies.

Signifies, it is possible to speak of possibility of the synergetic paradigms in sociological science, directed on the investigation of non-linear effect.

The description of the complex as shows K.Mainzer - the President of the German society of research of complex systems and non-linear dynamics, is impossible without a representation about non-linearity and modern non-linear models. In conditions of the modern world the linear thinking till now dominating over some areas of a science, becomes essentially insufficient and even dangerous in a non-linear complex reality [1].

We shall consider for example specifics non-linear relationships between two groups parameter: "Characteristics of the enterprise" - characteristics of the enterprise (the job place) and their role in labor activity, characteristics of the job position and their role in labor activity.

We shall show the strongest dependencies of a parameter "Characteristics of the enterprise" from parameter "The job position". Us will interest in the events, when considered factor of the connection strenght $SV > 0.6$, but linear correlations in 2 and more times less (close to zero). The events, when $SV > 0.6$ and simultaneously $SV > 2 * |R|$ turned out to be 3.

	N1	N2	SV	SV'	R	Triad N1	Parameter N2
1)	62	54	0.75	0.33	0.21	X62	X54
2)	62	57	0.63	0.14	0.14	X62	X57
3)	74	49	0.61	0.49	0.29	X74	X49

Let's show the identifications, which will be used in the offered tables: N1 - number of the parameter, for which is made splitting on triads; N2 - number of the parameter, which values are determined for the distinguished triad of the parameter with number N1; SV - factor of the connection strength determining the dependence of the parameter of the number N2 from the parameter for the number N1; SV' - factor of the connection strength determining reverse (in relation to SV) dependence of the parameter with number N1 from the parameter with number N2; R - the coefficient of linear correlation between parameters with numbers N1 and N2.

Linear dependences at the such strict limit (>0.6) simply was not there. At easing restrictions (>0.5), imposed on the factor of the connection strength and correlation coefficients, selected one linear dependence, and 7 non-linear.

We shall present three dependencies in the manner of distribution on level of the groups-triads (independent variable) with specified for each level of comparative weightiness of dependent variable.

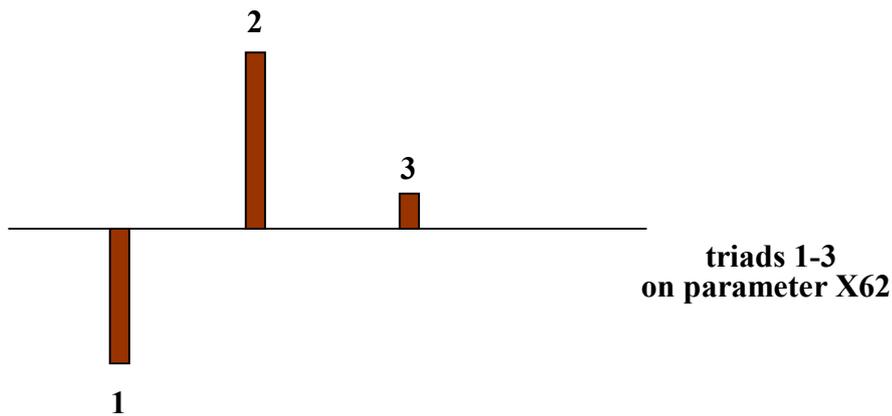
1. Dependence of the parameter "Satisfaction with a favourite business (Importance)" (X54) from the parameter "Worthy wage level (Perception)" (X62) as comparative weightiness of the parameter X54 for triads on a scale X62:

Triads on the scale X62	Comparative weightiness of the parameter X54 for triads
X62-3	834
X62-2	9426
X62-1	-7114

Factor of the connection strength = 0.75 (0.33)
Coefficient of correlation = 0.21

The Perception (worthy level of salary) on miscellaneous influences upon estimation of importance of the emotional satisfaction of job for small and greater importance of the studied spectrum. If sharp ascent exists on the first stage of importance of the emotional satisfaction of job on comparative weightiness from (-7114) till (9426). That is a further growing of the perception worthy level salaries vastly reduces importance of the emotional satisfaction of job (comparative weightiness of the triads is 834). Graphically dependence looks like:

Satisfaction with a favourite business (Importance)



2. Dependence of the parameter “Development of abilities and reception of professional skills (Importance)” (X57) from the parameter “Worthy wage level (Perception)” (X62) as comparative weightiness of the parameter X57 for triads on a scale X62:

Triads on the scale X62	Comparative weightiness of the parameter X57 for triads
X62-3	367
X62-2	8022
X62-1	-5446

Factor of the connection strength = 0.63 (0.14)
Coefficient of correlation = 0.14

The first dependency is the analog of the parameter dependency of importance of the development of the abilities and receptions of the professional skills from parameter Perception (worthy level of the salary): initial growing is replaced sharp decrease.

Thereby, importance of the emotional satisfaction of job and importance of the development of the abilities and receptions of professional skills depends equally on perception (is received in reality) worthy level of salary. In presented events are received dependencies with maximum, which is typical particularity is a sharp decline depended variable after the first stage of the joint increase depended and independent variable. Maximum importance dependent variable takes under average importance of independent variable. This possible characterizes as the effect of the saturation and cutting the change (the bifurcations) forming at first the idle time and easy interpreted to dependencies, when linear approximations can bring about simplified and wrong understanding the under study phenomena. But linear correlation will simply point to weaken relations between parameters.

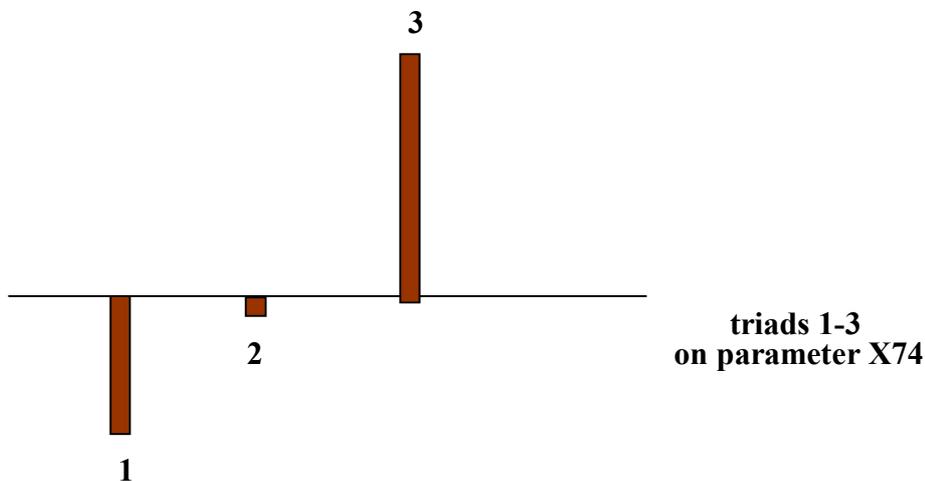
3. Dependence of the parameter “Prestigiousness of a profession or post (Expectation)” (X49) from the parameter “Work on a speciality (Perception)” (X74) as comparative weightiness of the parameter X49 for triads on a scale X74:

Triads on the scale X74	Comparative weightiness of the parameter X49 for triads
X74-3	12143
X74-2	-222
X74-1	-8362

Factor of the connection strength = 0.61 (0.49)
Coefficient of correlation = 0.29

Graphically dependence looks like:

Prestigiousness of a profession or post (Expectation)



Dependence increasing, but not quite symmetrical, as evidenced by correlation coefficient (0.29) that is small in an absolute value. This is the case, when there is no extremum (maximum or minimum), but the relationship is non-linear - growing (monotone) dependence, which cannot be let out of the attention, but which is lost when we use the correlative analysis.

Later on, we consider two more (out of 25) specific example in the form of a subset of the non-linear dependencies between the five groups of parameters.

The non-linearity between parameter groups

"the Role of educational institutions" and "Characteristics of post"

Let's consider the non-linear relations between the two groups of parameters: "the Role of educational institutions" - what role in the preparation of the future specialist played characteristics of the educational institution and "the Characteristics of his/her post" - what role in employment played characteristics of a post. We show the dependence of the parameters of "the Post" on the parameters of "the Role of educational institutions". We are interested in cases, when the factor of the connection strenght of $SV > 0.6$, a linear correlation module in 2 and more times less (close to zero). Cases, when the $SV > 0.6$ and at the same time $SV > 2 * |R|$ was 8.

	N1	N2	SV	SV'	R	Triad N1	Parameter N2
1)	4	62	0.61	0.19	0.05	X04	X62
2)	6	62	0.63	0.14	-0.00	X06	X62
3)	8	71	0.62	0.45	0.21	X08	X71
4)	9	68	0.67	0.42	-0.06	X09	X68
5)	9	71	0.69	0.17	0.06	X09	X71
6)	14	65	0.68	0.47	0.30	X14	X65
7)	14	71	0.67	0.36	0.21	X14	X71
8)	14	74	0.66	0.33	0.13	X14	X74

Linear dependences at such strict limit (>0.6) simply was not there. At easing restrictions (>0.5), imposed on the factor of the connection strength and correlation coefficients, linear dependences also weren't found, and among non-linear ones were selected significantly more – 18 dependences.

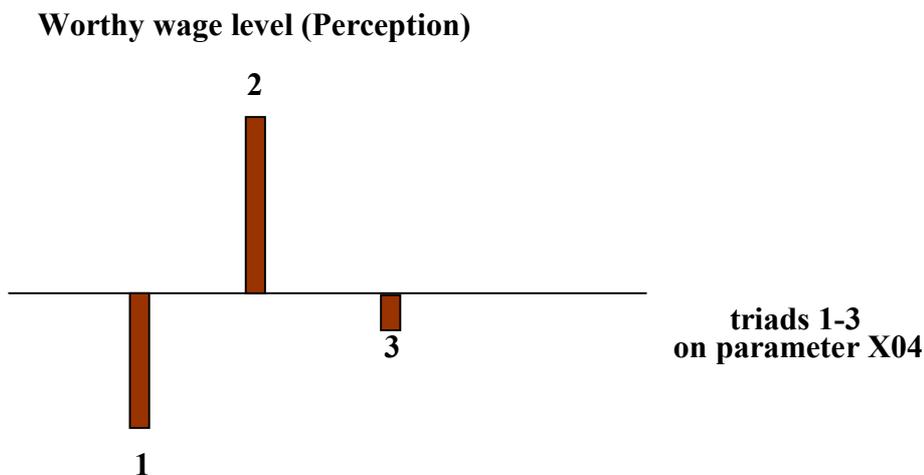
Let's show eight dependencies of the table (all - dependence with maximum) in the form of distributions on the levels of groups-triad (the independent variable) with specified for each level of comparative weightiness of the dependent variable.

1. Dependence of the parameter “Worthy wage level (Perception)” (X62) from the parameter “The quality of practical training (Expectation)” (X04) as comparative weightiness of the parameter X62 for triads on a scale X04:

Triads on the scale X04	Comparative weightiness of the parameter X62 for triads
X04-3	-1043
X04-2	6739
X04-1	-5804

Factor of the connection strength = 0.61 (0.19)
Coefficient of correlation = 0.05

Graphically dependence looks like:



2. Dependence of the parameter “Worthy wage level (Perception)” (X62) from the parameter “The quality of practical training (Importance)” (X06) as comparative weightiness of the parameter X62 for triads on a scale X06:

Triads on the scale X06	Comparative weightiness of the parameter X62 for triads
X06-3	-2341
X06-2	8026
X06-1	-2744

Factor of the connection strength = 0.63 (0.14)
Coefficient of correlation = -0.00

3. Dependence of the parameter “Free time presence (Perception)” (X71) from the parameter “The quality of practices and their significance (Perception)” (X08) as comparative weightiness of the parameter X71 for triads on a scale X08:

Triads on the scale X08	Comparative weightiness of the parameter X71 for triads
X08-3	2120
X08-2	7885
X08-1	-7200

Factor of the connection strength = 0.62 (0.45)
Coefficient of correlation = 0.21

4. Dependence of the parameter “Possibility of professional (career) growth (Perception)” (X68) from the parameter “The quality of practices and their significance (Importance)” (X09) as comparative weightiness of the parameter X68 for triads on a scale X09:

Triads on the scale X09	Comparative weightiness of the parameter X68 for triads
X09-3	-3373
X09-2	9518
X09-1	97

Factor of the connection strength = 0.67 (0.42)
Coefficient of correlation = -0.06

5. Dependence of the parameter “Free time presence (Perception)” (X71) from the parameter “The quality of practices and their significance (Importance)” (X09) as comparative weightiness of the parameter X71 for triads on a scale X09:

Triads on the scale X09	Comparative weightiness of the parameter X71 for triads
X09-3	-1003
X09-2	8175
X09-1	-5935

Factor of the connection strength = 0.69 (0.17)
Coefficient of correlation = 0.06

6. Dependence of the parameter “Good working conditions (Perception)” (X65) from the parameter “Hardware and software of educational laboratory and computer base (Perception)” (X14) as comparative weightiness of the parameter X65 for triads on a scale X14:

Triads on the scale X14	Comparative weightiness of the parameter X65 for triads
X14-3	4241
X14-2	9562
X14-1	-7804

Factor of the connection strength = 0.68 (0.47)
Coefficient of correlation = 0.30

7. Dependence of the parameter “Free time presence (Perception)” (X71) from the parameter “Hardware and software of educational laboratory and computer base (Perception)” (X14) as comparative weightiness of the parameter X71 for triads on a scale X14:

Triads on the scale X14	Comparative weightiness of the parameter X71 for triads
X14-3	1324
X14-2	8938
X14-1	-6008

Factor of the connection strength = 0.67 (0.36)
Coefficient of correlation = 0.21

8. Dependence of the parameter “Work on a speciality (Perception)” (X74) from the parameter “Hardware and software of educational laboratory and computer base (Perception)” (X14) as comparative weightiness of the parameter X74 for triads on a scale X14:

Triads on the scale X14	Comparative weightiness of the parameter X74 for triads
X14-3	-365
X14-2	8772
X14-1	-4271

Factor of the connection strength = 0.66 (0.33)
Coefficient of correlation = 0.13

As you can see we have in all the cases, subject to a maximum of (more or less symmetrical), characteristic feature of which is the sharp decline in the dependent variable after the first stage of the joint increase in the dependent and independent variables.

Thus, the maximum values of the dependent variable takes with the average values of the independent variable. This can be interpreted as the effect of saturation and rapid change (bifurcation) current at first a simple and easily interpreted dependence, when the linear approximation may lead to a simplified and a wrong understanding of the investigated phenomenon.

**The non-linearity between the groups of parameters
"Characteristics of the enterprise" and "Quality of graduate"**

Let's consider the non-linear relations between two groups of parameters: "Characteristics of the enterprise" - characteristics of the enterprise (place of work) and their role in the labour activity and "the Quality of the graduate" - quality purchased by a graduate during the training period. We show dependence of the parameters of "Quality graduate" from the parameters of the "Characteristics of the enterprise". We are interested in cases, when the factor of the connection strenght of $SV > 0.6$, a linear correlation module in 2 and more times less (close to zero). Cases, when the $SV > 0.6$ and at the same time $SV > 2 * |R|$ was 6.

	N1	N2	SV	SV'	R	Triad N1	Parameter N2
1)	46	22	0.70	0.61	0.32	X46	X22
2)	55	30	0.64	0.50	0.31	X55	X30
3)	57	19	0.70	0.47	0.23	X57	X19
4)	57	30	0.61	0.45	0.27	X57	X30
5)	60	28	0.71	0.15	0.04	X60	X28
6)	60	30	0.79	0.16	0.13	X60	X30

Linear dependences at such strict limit (>0.6) simply was not there. At easing restrictions (>0.5), imposed on the factor of the connection strength and correlation coefficients, we get 3 linear dependences, and 16 non-linear ones.

Let's consider six dependencies from the table (five dependencies with a minimum and a growing one) in the form of distributions on the levels of groups-triad (the independent variable) with specified for each level of comparative weightiness of the dependent variable.

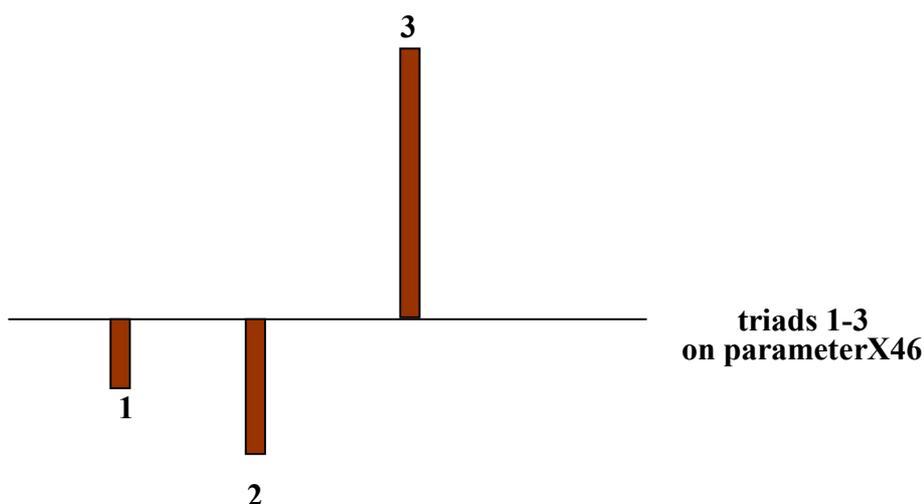
1. Dependence of the parameter "Qualitative knowledge in their specialized area (Expectation)" (X22) from the parameter "Prestigiousness of the enterprise (Expectation)" (X46) as comparative weightiness of the parameter X22 for triads on a scale X46:

Triads on the scale X46	Comparative weightiness of the parameter X22 for triads
X46-3	13712
X46-2	-7440
X46-1	-5125

**Factor of the connection strength = 0.70 (0.61)
Coefficient of correlation = 0.32**

Graphically dependence looks like:

Qualitative knowledge in their specialized area (Expectation)



2. Dependence of the parameter “Useful contacts and links in the period of study (Importance)” (X30) from the parameter “Development of abilities and reception of professional skills (Expectation)” (X55) as comparative weightiness of the parameter X30 for triads on a scale X55:

Triads on the scale X55	Comparative weightiness of the parameter X30 for triads
X55-3	9858
X55-2	-2001
X55-1	-11567

Factor of the connection strength = 0.64 (0/50)
Coefficient of correlation = 0.31

3. Dependence of the parameter “A high level of general education (Expectation)” (X19) from the parameter “Development of abilities and reception of professional skills (Importance)” (X57) as comparative weightiness of the parameter X19 for triads on a scale X57:

Triads on the scale X57	Comparative weightiness of the parameter X19 for triads
X57-3	9674
X57-2	-8610
X57-1	-3508

Factor of the connection strength = 0.70 (0.47)
Coefficient of correlation = 0.23

4. Dependence of the parameter “Useful contacts and links in the period of study (Importance)” (X30) from the parameter “Development of abilities and reception of professional skills (Importance)” (X57) as comparative weightiness of the parameter X30 for triads on a scale X57:

Triads on the scale X57	Comparative weightiness of the parameter X30 for triads
X57-3	9719
X57-2	-8237
X57-1	-5768

Factor of the connection strength = 0.61 (0.45)

Coefficient of correlation = 0.27

5. Dependence of the parameter “Useful contacts and links in the period of study (Expectation)” (X28) from the parameter “Creative character of work (Importance)” (X60) as comparative weightiness of the parameter X28 for triads on a scale X60:

Triads on the scale X60	Comparative weightiness of the parameter X28 for triads
X60-3	6894
X60-2	-7237
X60-1	2405

Factor of the connection strength = 0.71 (0.15)

Coefficient of correlation = 0.04

6. Dependence of the parameter “Useful contacts and links in the period of study (Importance)” (X30) from the parameter “Creative character of work (Importance)” (X60) as comparative weightiness of the parameter X30 for triads on a scale X60:

Triads on the scale X60	Comparative weightiness of the parameter X30 for triads
X60-3	9700
X60-2	-7879
X60-1	932

Factor of the connection strength = 0.79 (0.16)

Coefficient of correlation = 0.13

As we can see we have basically (for one exception of monotonous dependence) dependence to a minimum, characteristic feature of which is overcoming of the tendency initial release of the dependent variable in the first stage (a negative correlation) and a sharp rise of the dependent variable after the first stage of joint order of the dependent and independent variable.

Thus the dependent variable takes the minimum values in the case of the average values of the independent variable. This can be characterized as an effect of the discharge and the sharp change (bifurcation) current at first a simple and easily interpreted dependence, when the linear approximation may lead to a simplified and a wrong understanding of the investigated phenomenon.

In conclusion, we note that our statistical approach can be one of the methods in the implementation of synergistic approaches to the objectives, based on the study of the social environment, which for the most part, are non-linear and often ignored on methodological or technical problems.

Yours offer for tasks of analysis of statistical relations (linear and elementary non-linear dependences) in sociological research:
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SOCIOLOGICAL ANALYSIS OF STRATEGY OF HUMAN RESOURCE MANAGEMENT OF THE RUSSIAN MEDICAL ORGANIZATION (ON AN EXAMPLE OF MOSCOW)

Starting in 2011 in Russia reform of health care mentioned all medical organizations of the country and made changes to work of medical managers. In the conditions of modernization by the most important aspect of human resource management competence of heads of the medical organizations acts. [1, 2]

The profession of the chief physician of the medical organization in Russia has the specifics: the head the medical organization in overwhelming majority of cases has medical education, a wide experience of practical work and extremely needs information on all aspects of human resource management. Studying of strategy of human resource management of the Russian medical organization was organized was under construction on results of questionnaire of experts of a key element of the medical organizations (N=57, 2011, Moscow, First Moscow state medical university of a name I.M. Setchenov).

According to research heads consider strategically important introduction modern the personnel technologies (63,2 %) and as the main directions of improvement of the work with the personnel consider:

- increase of level of own knowledge of trial and error methods and personnel deduction, skills of strategic scheduling and creation of effective procedure of an assessment of work of the personnel (100 %);

- optimization of personnel capacity of the organization, introduction, besides formal, additional criteria for staff recruitment (82,5 %);

- approach change to attestative procedures and introduction in the organization of a principle «360 degrees» - estimates of activity of the employee the administration, subordinates, colleagues, patients and self-image (40,4 %).

Results of research testify that modern heads are interested in information considering a full complex of personnel actions and their strategic orientation, aspire to bigger independence during the developing and realization of effective personnel strategy in health care establishments.

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VOCATIONAL TRAINING OF POWER ENGINEERING SPECIALISTS IN THE REPUBLIC OF TATARSTAN: ROLE OF WORK PRACTICE

Today in Russia the mission of social and professional formation of youth is assigned to the high school. Changes of a state policy in the educational sphere concern changes in the educational practice, caused by appearance of new standards which affect on a labor market and employment. The young specialist in modern social and economic conditions needs high professional skills, competences and personal qualities.

Particular qualities of social and professional socialization of young specialists of two stages were studied: the high school (an educational stage) and professional and labor environment (power branch enterprise). The Russian Federation state educational standard in the high educational sphere provides for the three types of practice (educational, production, predegree) in specialists training curricula.

Within working practice it is obviously possible for young specialists to get and improve knowledge, skills and abilities in the technological and technical design, equipment manual operating at the places of practice - profile (in the specialty training) departments, laboratories of the enterprises. In order to determine the role of working practice in preparation of young specialists in 2009-2010gg. the author's sociological research was executed in the form of quiz of the 4-, 5- year students "KGEU" (n=804 people), after they have passed their practice at the Kazan power branch enterprises. It was defined that feature of work practice is determined by objective and subjective conditions. In the order of preference in work practice the importance of existence of high technological equipment was declared by 69 % of respondents. However special attention should be paid on the fact that only 39 % of respondents said about a possibility of use of the technical equipment during working practice, as we know modern innovative equipment to be a necessary qualifying component for improving of professional skills in a work of power branch enterprises specialists.

Another objective condition influencing to the content of work practice is interaction between probationers and the linear management, heads of practice from the enterprises. The linear management of departments of the power enterprises (52 %) doesn't show any interest to work of probationers, as well as the heads of practice process of the enterprises (42 %). In the absence of rigid control the working practice can't carry out its main task of fixing of the theoretical knowledge received in HIGHER EDUCATION INSTITUTION, and also to gain practical skills which give a basis for successful social and professional socialization at the professional and labor environment of the enterprise.

Subjective conditions of work practice include, first of all, understanding of communication of special disciplines with a profession and understanding of importance of a role of general and professional disciplines. The assessment of communication of the knowledge received in the course of training in higher education institution and realized during work practice on special and general and professional disciplines, is defined by respondents as follows: completely it was possible to understand communication of special disciplines with a profession - 27 % of respondents; the understanding of communication of general and professional disciplines with a profession (22 %) slightly below is estimated. The obtained data

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indicate need more closely to coordinate communication of prepodavayemy disciplines with real problems of production and on earlier terms of training within work practice.

Carried out in 2010r. author's sociological poll (questioning) of young specialists (n=796 of the people) at the power enterprises of Kazan showed that feature of social and professional socialization of the young specialist is also that it is realized through influence external and internal factors of the professional and labor environment. On the basis of the analysis of external factors of the professional and labor environment are revealed: low level of satisfaction at young specialists conditions and the content of work (21 %), shortage of professional knowledge (62 %), low level of satisfaction corporate policy (46 %).

The analysis of internal factors of the professional and labor environment allowed to reveal discrepancy of personal expectations and installations of the young specialist with real conditions of the professional and labor environment of the enterprise. «Завышенность» the requirements shown on a workplace, note 52 % of young specialists 33 % from which would agree on the offer of the employment which is not corresponding to received specialty, but with higher level of a salary. From the received data low interest at young specialists by possibilities of professional self-realization in absence of desirable economic motivation is defined.

During expert poll of specialists of the enterprises of the power branch, carried out by the author in 2009-2010gg. (n=15чел.), lack of due level of practical professional skills at young specialists – graduates of power higher education institutions is defined. Experts also note a dissatisfaction at young specialists conditions and the content of work at the power enterprises.

On the basis of the received data discrepancy of level of preparation of young specialists at an educational stage to requirements of the enterprises of power branch and, as a result, a dissatisfaction of young specialists with factors of the professional and labor environment of the enterprises is defined. There is a need of development of the directions of improvement of social and professional socialization of young specialists at the enterprises of power branch.

Preparation of the competitive young specialist is a priority problem of higher education of the Russian Federation and its separate republics in particular. In this regard fundamental in the course of preparation of future experts for the enterprises of power branch there is an integration of theoretical and empirical approaches.

On the basis of the analysis of conditions of vocational training of young specialists at a stage of the higher school and factors of the professional and labor environment of the power enterprises the problem of dissertational research connected with development of the directions and models of improvement of social and professional socialization of young specialists at the enterprises of power branch is realized. The directions of improvement of social and professional socialization of the competitive young specialist are realized at regional level, level of the enterprises of power branch, level of establishments of higher education.

At regional level improvement of social and professional socialization of young specialists is carried out according to a principle of social partnership. On the basis of results of author's sociological researches the program «The social order for training is developed for the enterprises of power branch», providing the closest cooperation of the higher school with the branch enterprises, the regional analysis of a labor market for the purpose of fast and adequate response to modern personnel inquiries of the enterprises. Implementation of this program will allow to lift prestige of engineering specialties, to involve new young generation of experts on production, to create the favorable environment for increase in a specific share of target entrants at electror and heat power specialties in technical colleges of the Republic of Tatarstan.

At level of the enterprises of power branch improvement of social and professional socialization of young specialists is based on a management principle. Programs «Management of adaptation of young specialists», «Increase of the social and professional status of young specialists» are developed and introduced. The listed programs include the following actions: creation of Council of young specialists of the enterprises of power branch, approbation of techniques on management of a uniform cycle of professional career of young shots, introduction in the centers of training and professional development of automation of the personnel

accounting of young specialists. The successful solution of the problem of social and professional socialization of young specialists at the enterprises of power branch assumes serious methodical and organizational work. However it is not enough one understanding of importance of this work. The success is possible at competent planning and coordination of the offered programs in power enterprise scales.

The direction of improvement of social and professional socialization of young specialists at level of establishments of higher education is based on a clustering principle. The program «Social development of an educational cluster» by means of which it is supposed to enter in higher education establishments within educational practice is developed:

- reading by experts from the course power enterprises «Introduction in specialty»,
- acquaintance of students with professional experience of the advanced staff of the power enterprises, features of corporate policy, since the second year of training,
- carrying out practical seminars on special disciplines on the basis of the power branch enterprises.

Within work practice it is supposed:

- carrying out trainings on competences of the corresponding specialties,
- increase in duration of work practice from one to two months.

According to the directions of improvement of social and professional socialization of young specialists structurally functional and kompetent models are developed. The structurally functional model represents ordering of levels of social and professional socialization of the young specialist and turns on the structural modules forming internal structures of professional identification of the young specialist at level of establishments of higher education. At level of the enterprises of power branch within structurally functional model external and internal factors of the professional and labor environment are systematized.

The Kompetent model includes disciplines of an educational program of the higher school, competence of specialties and the requirement to a professional standard, forming a qualifying and professional profile of the young specialist. The personal focused profile comprises requirements to contents of the educational program within vocational guidance of future young specialists at level of establishments of higher education.

The offered directions of improvement, model and partially approved programs of social and professional socialization of young specialists are focused on systematic reproduction of the qualified manpower in the Republic of Tatarstan taking into account specifics of work of the enterprises of power branch.

FEATURES OF FORMATION PROCESS OF PROFESSIONAL IDENTITY «THE SOCIAL SCIENTIST» IN A POST-SOVIET SOCIETY

Social identity is studied in the two areas of research traditions. From the psychological point of view, social identity is a part of person's identity. It is one of the elements of structure of the person (E.Ericson, J. M. Marcia, Zavalloni M. and others). From the sociological point of view identity is understood as result of identification of the person or group of people with a social generality (V.Yadov, A.Teshfel, Berger and Lukman etc.). In our research social identity is understood as the form of self-positioning.

Identity is a multilevel formation. Among its kinds and forms are - sexual (gender) identity, ethnic and, professional. Interest in the world sociology to studying of professional groups has been caused by the certain moment of cultural marginal mediums and arising on their basis like "anomic" ("a social anomy" – deficiency of the settled norms) subcultures which appeared are more studied than "nomic" remaining in the field of social norm. Professions belong to these fields. There is an American approach in studying of trades. In America the attention always was given to the more closed corporate groups of professionals, and in the society was operated the system of free hiring. Also there is the European approach, where in professional systems always huge value was played by educational certificates. And in the society professional hiring was more supervised from the state.

Weakening of system authoritative centralized the states in Post-Soviet societies became the precondition of occurrence of process of redesigning (redefinition) of boundary work fields of social sciences. It gave more value of scientific knowledge for the society staticized a problem of self-determination of scientists, reconsiderations of the professional autonomy.

These problems - in the center of the study "**Professional identity of teachers (scientists) in the field of social science in Central Asia**" which was supported by the program OSI/HESP/CARTI.

Materials for the study were:

- Questioning Kazakhstan (the primary analysis of the data) and Petersburg (the secondary analysis of the data) sociologists,
- Biographic interviews of the Kazakhstan social scientists (the primary analysis of the data) and the Russian sociologists (the secondary analysis of the data),
- Observations of the author of article over behavior, forms of the organization and behavior of scientists at conferences in Kazakhstan (the Congresses of sociologists of Kazakhstan) and Russia (the Russia congress of sociologists, on November, 1-3st 2010 «the International school of sociology of a science and technology« the Science, technologies and innovations in 21 century: a view through a sociology prism », Kovalevsky readings on November, 11-12th St.Petersburg State University»).
- The analysis of a stream of publications.
- Blog sphere materials.

The field of the Soviet social science was characterized by low level of autonomy. Political field dominated in the Soviet system of hierarchy. In the system of social stratification the Soviet elite attached dominating significance in the field of social capitals to political type of the capital. Peoples who had it (an accessory to party, the working parentage, possession of party rhetoric) carried out fast social lifting. Other coping-strategies in the USSR were unsuccessful. Political capital was in the unique way to save up the economic capital and legally it to show.

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The political capital controlled access to the economic capital, whereas in the West always was the opposite situation. The scientific capital has been rather highly appreciated by the Soviet elite. As symbolical products of this field they were actively used as instruments of legitimating an existing political regimen. That is, not only simply scientific capital characteristic has highly been estimated, and the scientific capital in the form of the knowledge allocated with the certain ideological characteristics: accuracy, consistency, simplicity, objectivity (to survey all from the point of view of a society, not the individual), classly. The role and the status of the Soviet scientist both in public consciousness and in structure of professional identity have been marked as elite:

from biographic interview of the Kazakhstan philosopher: «Michael Gorbachev had an education of lower, it means that, he studied at prestigious faculty, and Raisa Gorbacheva studied at philosophical faculty, it means that, her education was elite, she was more educated than her husband»;

from biographic interview of the Kazakhstan historian: «when we were studied at the historical faculty, all faculties were deployed depending on degree of their prestigiousness – in the main case, was the closest to university administration the faculty of law, then economical, and the uppermost, and elite historical faculty».

During the Soviet period the professional group of social scientists wasn't homogeneous. There was a part of scientists for which the problem of a professional autonomy wasn't acute. The involvement for them became the norm, one of structural elements of professional identity. Other part of scientists which considered pressure of ideology excessive and obsessional, selected other strategy of behavior - meaningly left in less conjuncture for that period of subjects (history of the Middle Ages, mediévistics, the Kiev Russia, translations of foreign books), there, where ideological frameworks were less rigid:

«From biographic interview of the Kazakhstan historian: «among students was the joke like: if you want to be historian – deal with dead persons (be engaged in archeology) or with legends».

During the Post-Soviet period professional identity of social scientists was devaluated under the influence of external factors:

1. First, bases of all system of the Soviet trades have been devaluated: character of hiring (decentralization) has changed, there was a self-employment, the diploma about the higher vocational training was devaluated, the education system as process of transfer of skills and systems of knowledge has come to crisis.

2. Secondly, during Post-Soviet time scientists have been deprived monopoly for true (there were fields of journalism, publicism, ordinary consciousness, the literature, cinematography, at last, the field of the western science), the power has ceased to need in the Soviet ideological maintenance of the decisions, is depreciated the scientific capital.

As a whole it is necessary to notice that social scientists it is professional group which has short history of the institutional development not only in Post-Soviet scientific space, but also in the world, in particular in the West. For example, in comparison with doctors or lawyers. The long period it was no profession, it was just calling. Only in development society modernist style this profession receives mass character, institutional structures are formed to its acquisition. Moreover, the institutionalization is the live process, in the same way as well as process of formation of identity – it never happens finished, it is a certain continuum. Studying process of devaluation of the Soviet professional identity, formation of new coping-strategy of behavior of social scientists in the Central Asia, such as struggle for or against autonomies, designing of a social network of a science, thematic and methodological discussions, word all that can be designated that the term «boundary work», it is possible to compare similar processes in the West, China, Japan, and to find both differences and signs of global isomorphism.

Gieryn T. allocates three types of «boundary work» in the course of an institutionalization of a science which in the West, as a rule, occurred in a chronological order:

1. Expansion

2. Monopolization

3. Autonomy protection.

In scientific communities of the countries of the Central Asia we have a possibility to observe how all three types of boundary work on formation of a professional field of a social science occur in parallel.

The author of given article, used the data of biographic interviews, a method of the included observation over behavior and the form of statements of social scientists from the Central Asia on various international and central Asian conferences, and the content-analysis of publications.

This data shows:

1. Existence of interdisciplinary migration from of history of philosophy in political science and sociology. 2/3 questioned people have the status of candidates and doctors, historical and philosophical sciences, but take up the problems from sociology and political science.

2. Thematic selectivity, is caused by changes in scientific conjuncture:

Table 1.

Question: In what degree do you interested in theme listed below?

Topic	It's very interesting	More or less interesting	Not very interesting
History of domestic sociology	19 (21,3 %)	26 (29,2 %)	44 (49,4 %)
Civil society	16 (30,3 %)	33 (36 %)	40 (33,7 %)
gender Studies	27 (18 %)	32 (37,1 %)	30 (44,9 %)
sociological education	19 (21,1 %)	32 (35,6 %)	39 (43,3 %)
Youth subcultures	11 (12,4 %)	46 (51,7 %)	32 (36 %)
social policy	31 (34,8 %)	27 (30,3 %)	31 (34,8 %)
Sociology of Everyday Life	20 (22,7 %)	26 (29,5 %)	42 (47,7 %)
Ethnicity	41 (46,6 %)	31 (35,2 %)	16 (18,2 %)
electoral behavior	20 (22,7 %)	19 (21,6 %)	49 (55,7 %)
methodology	19 (20,9 %)	18 (19,8 %)	54 (59,3 %)
Stratification and Inequality	43 (47,8 %)	34 (37,8 %)	13 (14,4 %)
Deviance and social control	16 (18,2 %)	51 (58 %)	21 (23,9 %)
government	26 (29,2 %)	23 (25,8 %)	40 (44,9 %)
globalization	36 (40 %)	32 (35,6 %)	22 (24,4 %)

Prevailing subjects ethnics, stratification, the government and globalization. At the same time absence of interest to practical sociology, micro sociology, electoral behavior, a feminism and youth is rather symptomatic. Scientists aspire to avoid often specification of the epistemological and methodological orientations, this theme "is unpleasant" for them:

«from biographic interview of the Kazakhstan philosopher:« There are no platforms and a conversation genre in which it would be possible to put and discuss the problem. People are frightened the offer, to make such operation as though them involve in preparation of terrorist plot »

3. The level of development of the Kazakhstan science as low was estimated by 83 % of respondents. Scientists note «that, there are lots of scientists, but there are no qualitative researches». The Level of development of the Russian science 75 % as have estimated average. Respondents were asked to specify the three authors of the book or article, that made on their greatest impact recently.

Table 2.

1. Poisons B, Kon.I, Zdravomyslov A, Dobrenkov - 28 mentions
2. Peter Berger and Thomas Lukman - 17 mentions
3. Max Veber - 12 mentions
4. Pierre Burde-11 mentions
5. Charles Right Mills - 5 mentions
6. Pitirim Sorokin - 5 mentions

The analysis shows that prevailing influence of the Russian sociology, total absence of references to books of own authors and only partial mention of the foreign. Despite it, respondents specify a high level of development of the world science. At the same time, there is a psychological scepticism concerning applicability of achievements of the western theoretical science to our realities and even psychological "insult" in connection with comprehension of own noncompetitiveness:

«a remark of the Kazakhstan professor of history, the participant of the international conference to the report of the American scientist:« by the way we was the first have departed to space!!!»».

There is a divergence between an estimation scientists of a condition of a own science and their estimation of own well-being. The situation in a domestic science is estimated by the majority of respondents as "crisis", thus scientists show psychological well-being and prefer active strategy of scientific activity. So 45 % of the interrogated respondents actively take part in grant activity, 20 % left in distant and the near abroad. An average share of publications for last three years - 3, 6, however publications on the Internet - 0, 3.

Role and mission of the social researcher and science, the relation to true and the demand of objectivity of a science sharply to share by age criterion. Respondents till 40 years consider that «the researcher should defend plurality of true, the true isn't present, or it is necessary to understand that what makes true as true». After 40 years respondents find out to followings to classical ideals of scientific character, objectivity, formulate wishes to frame in a society monopoly for carrying out of social researches:

Discussion fragment in a round table:

The Kazakhstan sociologist: «the Situation is catastrophic. Social researches was organized how they want, without any rules. They have no sociological education! It is necessary to demand, that someone gave licenses, permissions, supervised The representative of Presidential Administration: «I should notice that in this case you contradict the idea of democracy»».

4. The question is constantly discussed on the level of autonomy of a professional field. However the confrontation line is in the medium of professionals. A part of scientific community is focused consecutive paternalistic:

«a remark of the Kazakhstan philosopher, the participant of the international conference:«We should force to hear us the state, the state structures, we should prove the importance, necessity»».

Other part critically estimates level of an autonomy of a Post-Soviet science:

«From biographic interview of the Kazakhstan political scientist: «On change to the ideologist the figure of the expert Its function - legitimation decisions of "tops" comes. Experts, imitating impartiality, replace a problem of a choice which concerns all citizens with a problem of decision-making "tops"».

Despite available differences are observed in an institutionalization Post Soviet social science isomorphism.

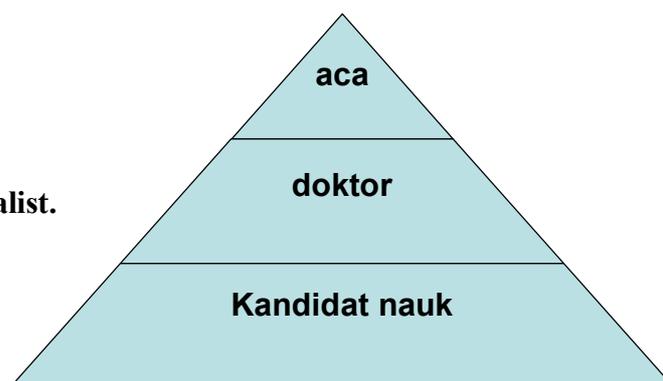
Fields of a policy, science, ideology and journalism everywhere cooperate with each other. However, if in the West scientists in every possible way try to protect the autonomy, sometimes even to the detriment of the demand of human justice (for example in the American Association of sociologists has refused the publication of the official protest against conducting armies to Iraq), in Kazakhstan for example we see that, local government buildings (were obkom parties), parliament become a venue carrying out of the congresses of sociologists that at the head of scientific associations put politicians, members of the government or when as original authors of the encyclopedia on cultural science of Kazakhstan the first persons in the government act. On the other hand politicians often compensate a disadvantage of the cultural capital at the expense of reception of scientific degrees.

According to substantive provisions of "Sociology of professions", systems of the academic qualifications can be formed on the basis of two principles which can be interpreted by meta-forms "dignity" or "prestige", "an order" and "license". The Soviet and Kazakhstan system of the academic qualifications was and is today a system of dignities.

The concept of a dignity is usually associated with feudalism (with a traditional society, speaking hardly more "sociological language"). In this case it is usually understood as a dignity the high rank or the notable post possessing a greater honour. The agent receives a dignity as a sign of recognition of his/her activity. The dignity is given for the last merits. It is typical for a traditionalist consciousness which is always focused on the past. The prestige of a dignity is formed (at least partly) through mechanisms of exception which testifies the exclusive blessings and uniqueness of its owner. The system of hierarchies carried out on the basis of the license, functions differently. The license usually represents the document which gives its owner (licensee) the right to the certain actions. The possession can be connected by the license with social prestige, but it is not comparable to the prestige coming together with a dignity. The basic applicability of the license - it entitles to the certain activity. Therefore the license is not the final blessing, and only the tool necessary for achievement of the certain blessings. The license assumes not the last merits, but the future activity.

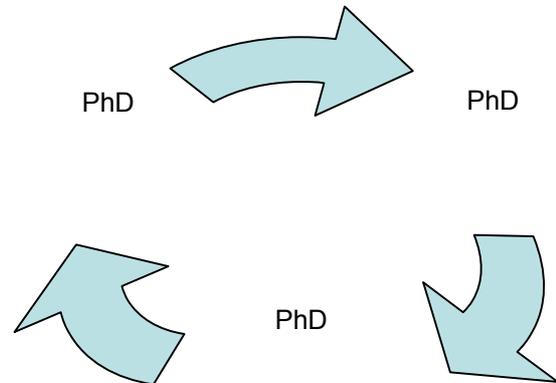
Scheme 1. The Soviet system of classification of degrees.

- **academician**
- **Doktor nauk**
- **Education in the doctoral**
- **Kandidat nauk**
- **3-year postgraduate - aspirantura**
- **5 years of university study - the specialist.**



Scheme 2. The new system in Kazakhstan (Western??)

- **PhD**
- **Magistratura**
- **bakalavriat**



You can see two schemes - the first one is a hierarchical system of academic statuses used in Soviet system. The second is beginnings of a network structure of a science in new system of academic rank PHD. There can be bad and good, successful and unsuccessful licensees, but dignitaries are defined not only by personal qualities, but with a formal rank.

The case of informant E. EXAMPLE 1: “Oh, what such doctors? For instance me, who have ploughed for seven years at the master's thesis, and these doctors write their master’s thesis just in a three-year time ” (overheard by the author in Science center of STI).

The case of informant A. EXAMPLE 2: “Why are you comparing me with these candidates? They name me as the candidate. I am not the candidate, I am a PhD doctor” (it is borrowed from a private conversation).

In the conclusion, I would like to offer my hypotheses as an answer to a question why Kazakhstan is the first country of the postSoviet countries which passes to the western system of the academic degrees.

1. Kazakhstan is a very progressive country (this means that in Kazakhstan there is a strong intellectual capital on behalf of elite capable to estimate necessity of progressive transition)
2. The Old system is inefficient, got rid of itself, but the new one is effective
3. It is the veiled civilized struggle of elites for redistribution of resources
4. It is an effort to make a sphere of formation and a science less costly but cheaper for the state.

There is a process of formation of new type of the scientist. To it there corresponds also new style of professional behavior of the scientist: if earlier the sample of the classical scientist was activity on «to search and manufacture of new knowledge» and consequently, the scientific article now for a part of the academic scientists, probably, not less important there is a presentation of the received new knowledge which success depends not only on an estimation from professional community, but also from public reaction was the basic production. Searches thought over and variative procedures of a presentation of this knowledge to a society are conducted.

The carried out analysis, gives only partial representation about difficult structure and dynamics of re-structuring of social group of professional scientists in the conditions of social changes. Though article doesn't put before itself a problem of carrying out of the comparative analysis of development of the western and Post-Soviet science, it shows possibilities of use of analytical western models for the description of specificity of a Post-Soviet context.

Conclusions:

- Nowadays the Educational system of Kazakhstan has been enduring the most radical transformation of the higher education since the republic became independent. The outdated system of academic classification became a thing of the past giving the way to a new one. This process is accompanied by a significant social stress which is expressed, for example, in opposition of various systems' representatives of the academic classification. In Kazakhstan today there is an opposition and the conflict between representatives of an old system of the academic qualifications (a candidate and a doctor of sciences) and representatives of a new system (PhD).
- Soviet standards of scientific activity were changed in the new conditions and were partially changed. However, globalization processes and international communication influence on the process of forming new worldwide standards of scientific activity in Central Asia.
- Crisis of identity of professional scientists and teachers takes place. There is a search of use of professional activity under new circumstances, new standards of professional activity, new assessment criteria for work results, indicators of professional efficiency and degree of success in the field of science and education.
- Themes and problems of scientific researches were changed too. The range of such factors as ideology, forms of financial support and current situation has influence on them.
- As to social content, probably exclusion of middle-aged personnel from the field of science is occurring. Young and elderly people are concentrating in the field of science at the moment. Disciplinary migration of personnel is taking place: historians and philosophers are training to become sociologists and specialists in political science.
- International net communication is getting widely spread which has positive influence on new standards of science.

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COMPLAINING OF THE WORK ROUTINE AS OPEN RUSSIAN POLICEMEN' NARRATIVE: BEFORE AND AFTER POLICE REFORM

Every profession simultaneously has its own overt, publicly open and hidden, dissembled knowledge about the sense and content of everyday routine, rules and practices. The social scientist can understand a lot about the specific occupation by giving the attention to those issues and subjects that professionals usually declare voluntary about their job to “strangers” or, on the contrary, intend to avoid discussing. Obviously, corruption, illegal behavior, misconduct, violation of rules, unprofessional actions seem to be latent area of knowledge, which external observer usually has a limited access to. Hypothetically thinking this tendency should be much stronger in the closed professional worlds, such as army, police, prisons etc.

However, at least in the case of Russian police this statement only seems to be true. During my qualitative research work on everyday professional life of Kazan’s police I discovered that there is a common, very stable and “well prepared” complaining narrative of policemen and policewoman of their everyday work and routine, that includes descriptions of facts and practices of violations of their labor rights. Pursuing this research before and after police reform which was carried out in Russia in 2011 I realized that complaining of the work routine is one of the strategies of communicating with the people from outside the police system in particular circumstance of ordinary conversations.

The paper will analyze and compare results of the empirical research on the everyday life of police work, that were collected in 2007 (participant observation of the local and patrol police from February to August) and in 2012 (participant observation and in-deep-interviews with local and minor police officers, patrols, operative agents and police investigators from May to July) in Kazan, capital of Republic of Tatarstan (Russia). The data have the qualitative nature and include descriptions of practices, working spaces and participants of social interactions, and also transcriptions of conversations and interviews.

In the main part of paper I will focus on the content of complaining practices that police officers provided during my research, and the changes that police reform brought to these practices. The issues of salary, lack of personnel and staff, overtime and non-assigned work, attitude from chief’s side and changing legal rules are the most popular discussion topics. The final part of paper will consider the main role of complaining practices in the process of self-justification and of avoidance of the personal responsibility: “there are not bad policemen, the system is bad”.

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ENGINEERS IN RUSSIAN MANUFACTURING ENTERPRISES: NEW GENERATION AT WORK

The paper focuses on analyses of the work values, expectations and demands about work life of the new generation of industrial engineers working at technically advanced, successful enterprises of Russia. It also looks at how the young professionals identify themselves within the organizations, how they see relations with administration and representation of their interests by unions and other institutions and persons. Addressing the issues where empirical evidence has been quite limited, we present the findings emergent primarily from our qualitative research, including six focus groups with 49 young engineers and workers as well as 15 in-depth interviews with managers, HR specialists and union leaders. The research was conducted in 2011 within the framework of the Program of Fundamental Studies of the National Research University Higher School of Economics at three industrial enterprises: 1) one of the largest Russia's manufacturer of power machines and [turbines](#); 2) a factory producing aero-engines, helicopter gear boxes and transmissions, etc. 3) a petro-chemical factory. Some data used in the paper are coming from employees' survey conducted in 2010. The research is part (the third wave) of the longitudinal comparative monographic study, which has been carried out at a number of Russian industrial enterprises since 2009. As a whole, the study aims to explore various aspects of labor relations, including employees-management relations, labor unions' activities and collective bargaining (2009) and industrial conflicts (2010).

The dramatic changes which took place in Russia during last two decades had a significant and complex impact on the status of many professional groups. End of the overall government regulations of salaries and wages (so called unified tariff scales); increased mobility of the workforce which came with open borders and removal of administrative restrictions on the migration of the citizens within the country (so called *propiska*); transformation of the welfare state which makes workers independent (or less dependent) on the benefits offered by the enterprise (especially housing programs); free access to information on terms of employment in other companies in the region, country and abroad, - all these and other changes contributed to strengthening of the professionals' negotiating positions. At the same time severe restrictions put on labor activism by the Russian law, substantially limit the means which can be legally used by employees.

Young generations of professionals which had been raised and educated in the new socio-economic environment have now entered the world of work. Our research reveals that work values, attitudes and expectations of the young engineers are in some aspects different from the previous patterns. In comparison to older generations, they are more self confident and ambitious, expecting more from their current and future work life. Their self identification and a certain level of self esteem is based on criteria related to modern, time consuming and intellectually challenging, professional education they obtained. Their fundamental demand is decent salary, which, from the very first career stages, should provide not only for basic needs, but also for investments into continuous education, recreation, as well as for regular savings. Other important demands and expectations are about quality of work life, including possibilities of professional and career growth, working hours, workplace safety and positive psychology, communications, etc. The strategies which are used by young professionals to reach the goals are rather based on individual decisions (changing employer) then on collective actions (through

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collective agreements, petitions, protests, etc); lack of professional solidarity being seen as a major problem.

FOREIGN EXPERIENCE OF INNOVATIVE DEVELOPMENT OF HIGHER EDUCATION ON THE BASIS OF INTER-UNIVERSITY COLLABORATION

From the second part of the XX century speeding-up of scientific and technical progress causes rising demand for higher quality of human capital. The transformation of knowledge into innovative products, technologies and services is driven by creative potential of a person. That is why in the whole world institutes of higher education by carrying out research and educational functions are becoming more and more active innovative actors and sometimes are in the core of national and regional innovation systems. This happens due to providing a specific intellectual environment of higher education institutions.

As innovations result from multilateral and multiply interactions between participants of innovative activities, it causes more active vertical and horizontal integration within the frameworks of innovation systems. The attention of foreign and Russian scientists is focused on the problems of integration of education, science and business and formation of compound university complexes. But we would like to highlight some issues of horizontal university cooperation which can be observed in many countries of the world over the past few decades. This kind of interaction is aimed at increasing competitive advantages of higher education institutions. It enables fulfillment of more ambitious educational and innovation objectives and leads to interpenetration of different fields of knowledge. The basic motive of university collaboration is expanding activities and increasing influence of universities in national and regional innovation systems and international community.

From the territorial point of view inter-university collaboration can be carried out at regional, national and international levels.

Europe-wide university networks are taking active part in formation of the European Higher Education Area. The European association of Higher Education Institutions (EURASHE), the European University Association (EUA) and UNICA (association of universities from capital cities of Europe) are getting involved into the Bologna process by representing university sector and facilitating integration of higher education institutes from different regions of the world into the European Higher Education Area. For that purposes working groups of these university networks are engaged in research projects dealing with the Bologna process (for example, Tracking Learners' and Graduates' Progression Paths) and consult official bodies including those of the European Union. Providing a forum for co-operation they are monitoring latest trends and share best practices in higher education development and policies. Other lines of collaboration are joint degree programs, student and staff mobility programs, academic research and teaching collaboration, etc.

Global international partnerships are aimed at tackling global problems:

- International Alliance of Research Universities (IARU) is a collaboration between 10 of the world's leading research-intensive universities from eight countries established in 2005;
- Universitas 21 is a network of 23 leading research-intensive universities from 15 countries established in 1997.

The main objectives of inter-university collaboration are: strategic planning and coordination; enhancing interaction with business environment and official institutions, links with other networks; advising official bodies and extending influence; securing funding; development of joint projects in education, post-graduate studies and multidisciplinary research; staff development; using joint communication channels and databases; creating joint physical or virtual innovation infrastructure; exchange of good practices.

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At the same time there are possible risks of these interactions: protectionism on the national education market, less autonomy of universities and heads of departments, unequal resources and possibilities of members, lack of initiatives, growth of bureaucracy, legislative contradictions and limited financial resources.

Further study of organizational and economic characteristics, strengths and weaknesses of various forms of inter-university interaction will be useful for adaptation and adopting the most effective models in the higher education system of the Russian Federation.

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S. Leliukhin*

SOVIET TEACHER: EVOLUTION OF PROFESSIONAL REQUIREMENTS

Professional requirements of the Soviet school teachers were the focus of the Research Agenda, made using the social history. We have studied the evolution of requirements by comparing two decades of the twentieth century. Political loyalty was a key requirement for the teacher in the twenties and thirties. The teacher taught the pupils to be citizens of a great country. He had to use his personal experience as an example to follow. This task is typical for the studied period of history. Political loyalty was a key requirement for the teacher as in the twenties and the thirties.

We have identified particular educational policy for each decade. Total control was a feature of the school in Tsarist Russia. Overcoming this legacy was the purpose of education policy. Search for new forms of learning and the development of creative abilities of students and teachers had to make this happen. But a return to the traditions of the royal schools occurred in the thirties. Total control has returned to school. Each teacher was required to «squeeze» in the studied material questions of communist upbringing as in the twenties. He taught pupils to love the leaders of the country, military heroes and heroes of labor and admire them. School inspectors monitored even such aspect as verification exercise books. Teacher was required to carefully examine the exercise books and follow the rules of calligraphy with grading in the exercise books. However, many teachers did not fulfill their requirements. We used the documents of the State Archive of Contemporary History of Saratov region as an empirical basis of social research. We analyzed the facts found in archival documents in the context of works on the social history of the Soviet school, made by A. Kalsina, C. Kelly and S. Leonteva.

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INTERDISCIPLINARY ASPECTS OF INTEGRATION RUSSIAN SPECIALISTS IN THE PROFESSIONAL CULTURE OF THE EUROPE

The first conceptual idea of our research states: creative and innovative potential of the modern man is the core component of the formation of general and vocational-education culture, which is based on a developed system of personal values. Historically, and culturally it is determined by laws of formation of continental institutions of a socially oriented market economy, needs and interest of the European Community to counteract to the rise of «mosaic» of labor and vocational culture, in particular, to the extending alienation of the material world of economy and world-ethnic spiritual culture [2, 13]. The efficiency of the taken measures in this area depends on many factors, including total quality of vocational labor, cultural potential of the European labor force, from senior generations and education of contemporary youth. It determines need for sociological research, the subject of which are the real multidimensional trends, opportunities and processes of formation of a single professional working culture and the creative innovative potential of the citizens of modern European society.

The meaning of the second key idea of our research can be formulated as follows: creativity of professionals as two-track mechanism of innovative potential realization and professional labor integration of individuals into a modern civil

European Community is the most productive form of the realization of their ethno cultural and labor competitive on its nature behavior in the sphere of public production. Because of its multi-dimensionality, this mechanism has a complicated structure, here it is a synthesis of culture, economy, trade, labor and creativity of a man as a worker – a specialist acquires sound from position of philosophy, history, cultural studies, economics, sociology and vocational education.

From a philosophical and historical point of view of economic and social processes of European integration through the creativity of a person concerns the deepest ontological foundation of its cultural essence of labor — the ability of human individuals to think systemically and produce accurate according to the measure of any subject of the objective world [3, 94]. From historical point of view the genesis of professional working culture and creative and innovation potential of European communities (where we refer Russian specialists to) unites a range of factors. The development of creatively charged individual as «historically inevitable» ethno cultural needs of emerging and dynamically developing social community is open [1, 58]. From cultural point of view the ability of professionals to creativity, their willingness to integrate into a specific vocational and employment culture — it is a certain result, which expresses the real possibilities of individuals to adequately (in the exact accordance with the requirements of their specific device socium) to form and creatively transform the process of expansion deepen the professional knowledge, skills, civil and personal activity in the socio-political and cultural sphere of specific society. Thus, we confirm that creativity and innovation potential as a core of professional labor culture of a specialist genetically connected with the culture. The opposite effect of culture to concrete individuals is determined by creative work. Labor activities of the individual — is the first ontological form of its «humanity» and «the sociality», - is a special phenomenon of objective and spiritual deployment of human wealth in the sphere of social production — it is subject expressed public form of organization and presentation of historical integrity of creative development of every person, both as a goal and essence of modern civil society. It systemically expresses measure the whole process of social and professional formation of individuals, their essential power as subjects of a particular national, social and professional

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community. In this regard, all system of the principals of social formation of professional labor culture and creative and innovational potential of Russian specialists, which are implicitly aimed at the integration into European production systems should be based on ontological trends of development and interaction of social and cultural mechanisms of formation integrally unified continental institutions of market economy and civil society.

The bases of the above phenomena are the economic and social processes of social production. From this point of view each individual in order to integrate effectively into the European vocational and labor culture objectively has to show his ethno-cultural, professional, creative, innovative and personal qualities, not only as an identity, but also build a range of socio-economic, professional behavior in the labor and social production, responding not only to national, but continental needs to the traditions and vital needs of the cultural possessing of «the surrounding landscape». Sociology of the formation of professional working culture and the creative and innovative potential of modern specialists allow to focus the study for consideration of their professional life as a special area of the intersection of formation, continental and regional; national dyed socio-economic basic factors.

The approach to the creation of professionals from the point of view of sociology of vocational education «quite» concretizes its scientific analysis to complex study of the indirect impact of the integrated basic continental and national socio-economic factors on «conversion» by them the content of training people in vocational school at various levels, up to the refractive index via the identity specific individuals (as the special «prism») movement of the totality physical, social, economic and spiritual values foundations taking place in the world or a country of social, economic and political changes, forming their life content. These processes, as shown by our analysis, result in all spheres of education to a new socio-cultural and logical semantic integration of vocational education content and its methods, as a principle of organization of social and cultural life of society and all its subsystems. These processes, as P. Sorokin has emphasized, serve as mechanisms of effective integration of complex phenomena of social and cultural universe and the sphere of professional labor culture in particular [4, 42—47].

Scientific analysis of data collected allows us to formulate the following conclusions. The system of vocational and labor integration of Russian workers in the European industrial structure should be based on the need for radical transformation of modern domestic productivity, especially in its formation as particular valuable subject substance as a common and «single» European professional culture of workers. The social cultural mechanism for the conservation of our «Eurasian code» must be implemented in these trends realization and our deepest national interest must be rooted. But, for it, as S.L. Frank pointed out, «... safeguarding should be directed not to the old, as they are, not to ready already embodied forms and relations, but to the continuity and sustainability of the creative development, the vital activity» of Russian citizens, especially youth [5, 270].

Our modern opportunities of the formation of «new professional working culture of the person» are directly determined by the maturity of civil society institutions (including institutions of vocational education) and indirectly — with the expanded reproduction of a culture outside of our country. It is determined by the evolution of a modern market economy and formation of institutions for continuing professional education of youth people in Russia, as a part of the Bologna Process, transformation of our citizens in the subjects of professional labor culture, which is in them, both national supranational elements. In the post crisis conditions of development of our country the basis on these dependences will give us the opportunity to build effective social and economic policies at various levels, including in the area of creative and innovative potential of Russian workers, allowing them to effectively integrate into vocational and labor culture of modern Europe.

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NANOTECHNOLOGY: A VIEW FROM INSIDE AND OUTSIDE

In modern society, science became not only and not so much a source of knowledge but as a source of creation the new technologies. The nature of the relationship between science and society has been changed. Discoveries made at the level of basic science have rapidly rushed into our everyday life, but comprehension of its nature is not available for each person. In our days almost everybody knows something about the existence of nanotechnologies, but only qualified specialist can explain the sense of this concept.

Monitoring of the Russian-language blogosphere, made as part of an comprehensive project "People in the world of nanotechnology: the experience of humanitarian analysis" (RFBR 09-06-00307a) revealed four main groups of users:

- "Dedication" - that is, the very professional and academic elites who seek to penetrate the essence of things;

- "Customers" - the audience, which was formed as a result of high media-activity of the commercial structures, and is only interested in the final efficacy and risks of nano's application;

- "Skeptics" - those who doubt about just the existence of nanotechnologies, considering it as artificial ones created to launder money brands;

- "Optimists" – pin hopes on discovery in that field, but not inclined to think about the nature of the process.

At the time when people are inclined to just trust the scientists, the significance of new discoveries as such (and the need to finance them) particularly acute question of the responsibility of scientists. Poll participants of 10th All-Russian conference "Physical chemistry of ultrafine (nano-) systems" showed that not all scientists accept the need for humanitarian examination of new developments using nanotechnologies. Attitude of researchers to the issues of the need to inform the public about the risks of using such products is rather ambiguous.

The lack of understanding the nature of nanotechnological processes leads to creation of negative stereotypes and myths that form population's critical attitude to all forms of public support in this direction. At the same time, despite of the recognition of the importance of the public authorities of this research and the allocation of significant amounts of material to support it, many scientists are not satisfied with the measures of state support for research related to nanotechnologies. Scientists also face big problems during the implementation of innovative products based on nanotechnology.

Scientists face to serious challenges in implementation phases of innovative products based on nanotechnology.

Another concern is the lack of humanitarian competences among young nanotechnology researchers. Survey of students getting specialized education on nanotechnology, led to the awareness of the need to review existing educational programs in order to expand social and humanitarian components.

Readiness for dialogue of nanotechnologists is one of the important conditions for successful development of this field of science today and for the application of the innovative nanoproducts. Conditions for successful government regulation in this field is not only a revision of the existing schemes for the introduction of innovative products, building a radically new institutional model for interaction between the government, business and science (including a requirement for humanitarian examination of new developments), but also to encourage dialogue of science and society.

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THE MOTIVATIONAL PROFILE OF THE STUDENT-INNOVATOR

Contemporary society may be characterised less as a society of knowledge and of innovation (that is knowledge realised in the product), less as a society of permanent study and of modernisation, and more as a society characterised by *creativity* and *motivation*. Knowledge can earn money, but it is much more important to create systems of terms and conditions which permit the creative transition of knowledge for the development of high-end technologies while not destroying the overall environment in this development process.

To use a famous metaphor of two Swedish economists, in our time, it is talent that “makes capital dance”. What can a university do in order to locate this talent, develop it and then reignite it for the purposes of further research? How can talent be motivated and channeled towards creative and innovative activity?

Action is a product of a variety of conditions; it is, to use contemporary terminology, poly-motivational. Motives both coexist and find themselves in conflict with one another, leading to an hierarchical formation. This hierarchy contributes to a poly-functionality of motives, some of them remaining latent, others revealed. Assessing the motivational profile of students (that is the dominant motives in each student's hierarchy) is essential for supervisors or project leaders to supervise more effectively. This transferal of the student's activity into the creative / innovative field is a very important factor in the university structure.

The “ideal motivational profile” includes a number of motivational factors which a student is supposed to possess. In our concrete university, the national research nuclear university «MEPhI», we have analysed the parameters of such a profile. The “ideal motivational profile” is a convenient instrument for estimating and correcting important aspects of the research process as a whole. This profile can be presented as a diagram which correlates the distribution of motivational factors. To estimate the motivation of any given respondent the results of her or his particular tests are compared and contrasted to “ideal” profiles. The resultant graphic serves the purpose of creating a plan of concrete actions for correcting the profile, thus increasing the creativity and effectiveness of student work.

The process of correction can lead in two directions: first, towards correcting dominants in the motivational profile of the respondent; and second, towards modifying excessively dominating factors while fostering other factors, increasing the interest of the individual in these factors and narrows the distance between the individual's “motivational profile” and the “ideal profile”.

The correction of the motivational profile of a student requires locating her or him in a certain cognitive context, that is in an environment which provides for innovative scientific and creative research activity. This environment provides the necessary presuppositions permitting the development of the cognitive potential of the student, which itself represents a multilayer potential model. This model includes psycho-physical, cognitive, communicative, motivational, ethical and personal aspects. The environment should represent a symbiosis of various developmental directions such as the scientific, the social-cultural and the motivational. This scientific environment should therefore contribute to the formation of a fundamental theoretical grounding and systematic modes of thought. The social-cultural environment allows for the development of creativity, value orientation, and also communicative talents. This motivational environment contributes to the formation of a grounded professional orientation fostering the creative potential of the future specialist.

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RUSSIAN AND FRENCH MODELS OF BECOMING PROFESSIONAL CHEMIST

A comparison of the French and Russian models is of interest with respect to similarities and differences in the course of evolvement of a professional group. The history of the chemist profession reveals its French roots. By the beginning of the 19th century France had the brightest constellation of chemists. Their emergence had to do with the new social and economic life in the wake of the Revolution. Government officials and business owners had a major influence on the development of the chemical industry. The most important advances in the technologies of manufacturing chemical products in the first half of the century were made by the French. Likewise, theoretical explanations of these processes were provided by the French.

In the middle of the 19th century the French chemist's contribution to the frontline research began to decrease. The restoration of the monarchy was followed by a broad deceleration of social processes. The centralized management of science and education under the auspices of the Institute of France had exhausted its potential for reform. In the second half of the 19th century Germany becomes the world leader in research, education and technology. The most efficient model of the profession was formed there. For a number reasons neither France nor Russia adopted it to the full extent. After the Second World War the United States overtakes the leading role.

In the prerevolutionary Russia, the chemists never grew into a professional group as significant, as, let us say, doctors or lawyers. They were part of the mix in other-based communities, such as those of university professors, engineers, technologists or managers. The chemists were not seen and did not see themselves as a distinct professional group. Rather than being connected by the intra-disciplinary interaction in the field of chemistry they were much more firmly incorporated in organizational networks of their respective places of work or business

There are two notable differences between the French and Russian models. The chemical industry in Russia had until the mid-1930s a simplified structure, without either baseline technologies or amassment of professionals working together as was the case in the developed countries. And, secondly, Russia's chemical science has never been among the leaders of the production of knowledge; it has always been on the periphery of the process. Therefore, the Russian model can be called a "catch-up" one.

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THE FORMATION OF THE PROFESSION OF TEACHER OF THE MEDICAL UNIVERSITY

The theoretical constructs of our project include the formulation of hypotheses on the fundamental distinction between the competences of the graduate, doctor, teacher at the medical University. The formation of the teaching of the identity of a teacher of the medical University is, as a rule, spontaneously, on the basis of its own experience and examples of senior colleagues. The teacher as a professional in a medical specialty (the majority of teachers work at the clinical departments), does not have pedagogical education, knowledge in the field of methodology and didactics of teaching, psychology and pedagogy. On the other hand, a teacher, and preparing future students to the work of a doctor, should adapt them to the new quite aggressive environment (work with patients, their relatives, work in extreme situations). Personnel policy should include issues related to professional orientation and social adaptation, as this phenomenon is the first step to making the work of a specialist as can be more productive, which correspond to the spirit of the times and international level.

A prominent physiologist, academician of the Academy of Sciences of the Ukrainian SSR (1926), doctor of medicine V.YA. Danilevsky considered absurd the principle of a flow (mass) training specialists in the field of medicine. This profession is, in his opinion, requires in addition to calling another and the natural data: the spiritual and physical health, plastics thinking, compassion, willingness to sacrifice, initiative. Their absence does not compensated neither knowledge nor skill. Clinical thinking is produced in the course of the exercise, without any effort on the part of medical student. On this aspect of the very few people paid attention. Medicine, not as a sphere of material production, is under-funded, and this fact for a large part of the youth is one of the decisive factors in choosing a profession. Medicine needs are looking for creative people. Especially in science. The question is not so much in the search for talents and their preparation (which is important in itself), but rather in creating for them the conditions for permanent training, improvement of professional skills and theoretical training. A sociological study of professional orientations, conducted in 2009, with post-graduate students, students of the chair of pedagogics of the First Moscow state medical University named after I.M. Sechenov under the program «the Teacher of the higher school», revealed the following.

Future career is associated with the medical institution, where the post-graduate student works on the basic place of work - 37%; 31 percent of respondents are planning to open a private practice or clinic. With the work not on a speciality think a career - 13 per cent. Difficult to answer - 19 per cent of the respondents. Clarifying the question, what is the career for a doctor, got the results: professional self-realization - 38 per cent; high position in the system of health management - 18 per cent; high position in health facilities for 16 per cent; respect and recognition of colleagues - 18%; obtaining of the highest category-10 per cent.

In many of the «health» of the families of the profession of «doctor» is a «dynastic» feature. It is transmitted from one generation to another. We have identified specific vocational

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and personal self-determination of students with the use of method of questioning. As has shown experience of teaching, very often the students ask questions: «please, tell us something about our specialty. Where we will be able to work? Can realize our potential? How many of us will be willing to pay?»

The study considered and statistically summarizes the information about how clearly represented before entering the University or graduate school of the future specialists of the specific character of their profession. What do they think about the future career? It is important to their image, prestige, calling? Took part in the polling 61 a future doctor, including 21 student of 3rd course of day time branch, 10 students of the 5th course of day time branch, 18 students of the 4th course of evening branch and 12 post-graduate students. Analysis of the data showed that more than half of future physicians, students and post-graduate students it is important to acknowledge those around us as a specialist, important social status and image of the profession. This speaks of a particular way of implementation of life ambitions. Prior to admission to the University only 68 % of the respondents were aware of the essence of the future profession. Career is important for more than 60% of the surveyed physicians. In the field of medicine salary level in order increases with the career growth. There are a large number of opportunities to grow on the career ladder, so there is no sense to work there, where there are no prospects. As for the future doctors of their profession? As the survey showed - the possibility of self-realization. His future career of the young specialists have different opinions on one Can distinguish two main directions: a) career in health-care or b) to open their own business. It shows the ambition of future professionals. In the course of the study it was revealed that a fairly large percentage of physicians are not willing to work on profession. Mercantile interests are often higher professional. It is established that the level of professional and personal self-determination of doctors do not always correspond to expectation of the society.

According to the results of sociology-pedagogical experiments and observations, in the course of oral communication with the future doctors of the authors have developed a pedagogical methods of motivation for professional self-determination.

R.V. Shurupova, N.M. Izoria*

THE PATH OF ASCENSION TO THE PROFESSION: EXPERIENCE OF SOCIOLOGICAL RESEARCH

To the choice of doctor's profession promotes not only belonging to a profession of the relatives, but also an example of the doctor who renders the real help every day, carries light of hope to all people around.

From year to year, the number wishing to enter medical institutions increases. Besides traditional motivation, a considerable role in a choice of high educational institution, play scientific, technical progress and development of commercial medicine. In V. Pegler's article «Art to treat people: from the father to the son» interesting remarks in this respect contain. Dynasties are quite widespread phenomenon in life. It presents all professional groups. Its features are successfully reflected in F. Galton's book «Heredity of talent», in the works of native and foreign authors.

The path of ascension to the profession is hard and multistage, as well as the period of self-affirmation of the personality in a science. Earlier a person reaches required scientific degrees and ranks, he got more time reserve for career achievement.

Authors of the publication carried out sociological research on a problem of the objective relation to a role of dynasties in choice of profession, to professionalism and professional culture of doctors-teachers. Research was carried out among students of higher courses of medical faculty of First Moscow State Medical University named after IM Setchenov, from November 2007 until June 2008. One hundred seven students took part in survey. Students were offered to fill the questionnaire containing a number of questions about doctors-teachers. It was supposed that, as a basis of filling questionnaires will serve working experience with doctors-teachers of First MSMU during passing training.

Students, answering a question "From your point of view what are the major pedagogical qualities of the doctor?" guided by working experience with teachers, doctors of chairs and clinics of First MSMU named after IM Sechenov. Among a set of versions of answers most often met humour, patience, brevity, justice, intelligence, knowledge and others.

Being based on opinions and estimates of respondents, it is possible to speak about high level of conducting preparation of the doctors to pedagogical activity at the University. Especially it is necessary to notice that fact, that quality "humour" met in this or that form practically in each questionnaire (92,3 %). Let us mention that spiritual health of the person substantially is defined by ability on humour or with irony treat very serious problems. Through a prism of humour weaknesses and disadvantages of modern medicine sometimes are brightly highlighted.

The students suggest working over decrease in psychological pressure during training medicine, rather than on professionalism of staff personnel. Practically in all questionnaires concrete doctors were listed, as well as chairs of the University with whom students worked

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during six years at medical faculty (98,2 %). It is rather high level of assessment of the teachers work.

According to estimates of the students, most extraordinary teachers they remembered most of all. Certainly, among them there are those who perfectly embody the last innovative methods of conducting educational process, introducing ideas of active, problem, developing training, cooperation principles. At the same time, some teachers exactly follow the authoritative model. In any case, exactly the non-standard of style was postponed in memory of the students, at the same time, probably, knowledge, skills, abilities, personal qualities and the valuable orientations received on the corresponding discipline.

Participants of sociological survey noticed that many professionals preferred not simply to keep, but to develop unique traditions of native medical school. More often in questionnaires are mentioned famous personalities like: I.M.Setchenov, N.I. Pirogov, S. P. Botkin and N.F.Filatov.

THE FLIGHT ENGINEER IS DYING PROFESSION IN RUSSIA

There are three different categories of flight engineer, fixed wing (airplanes), rotary wing (helicopters), and space flight. [2]

Let's talk about flight engineers of airplanes work for civil aviation of Russia. First of all we would like to describe level of education and professional duties of flight engineers. Secondly, focus our attention on employment outlook of flight engineers. Finally, try to understand problems and perspectives of flight engineers in Russia.

The position of flight engineer (sometimes called second officer) exists on some of the large airplanes (Tu-154, Tu-204, Il-96, Yak-42, Boeing-747-200/300, DC-10 etc.). The flight engineer is the third in command of the flight deck crew, he works in close coordination with captain and first officer during all phases of flight and on the ground.

The flight engineer has many responsibilities, before a flight he inspects the outside of the plane "to make sure there are no fluid leaks and that tires are inflated properly. If any problems are found, the engineer calls in mechanics to repair the plane. Inside the aircraft, the flight engineer helps the pilot and copilot check the operation of more than a hundred instruments, including fuel gauges, oil pressure indicators, and switches to control wing flaps and landing gear. The flight engineer must also review the flight course and weather patterns to determine how much fuel should be loaded on the plane. The engineer monitors the instruments and may make minor repairs, such as replacing fuses. The flight engineer also records fuel consumption during the flight and makes note of the performance of the engines." [1] Flight engineer is responsible for making postflight inspections and adjustments.

Higher professional education (speciality 130300 "Technical Exploitation of Aircrafts and Engines"), flight engineer's license from the Russian aviation authorities and medical certificate are required to the flight engineers in Russia. [3, 4]

For example, in the USA professional flight engineers need to have a "commercial pilot's license and, according to the FAA, a flight engineer certificate. To qualify for a certificate, applicants must complete at least a two-year course in engine and aircraft maintenance". [5]

The main difference between the qualification requirements for flight engineers of Russian aviation authorities and Federal aviation authorities is commercial pilot's license are required for the flight engineers in the USA.

Thanks to this difference flight engineers have many career opportunities in the USA. "Flight engineers are promoted to first officer after 1 to 5 years, and then to captain after 5 to 15 years. The most desirable routes are administered to pilots based on seniority". [6] Some flight engineers are not pilots and remain in their position for their entire careers.

The flight engineer is not able to move on to first officer positions in Russia so easy. First of all he has to get additional expensive education and commercial pilot's license, it creates many problems to the flight engineers today. At the present time many airlines are replacing older planes with newer models that do not require flight engineers. All communications, navigation and flight operation control as well as take-off and landing maneuvers and flight planning are now computer-aided. The flight engineer is now dying profession as aircraft with modern digital cockpits are flown with a crew of two. For example, two-man deck aircrafts are Airbus-320, Boeing-747-400, Boeing-737NG etc. The flight engineer crew position will soon be completely eliminated.

Russian flight engineers are deeply disturbed by the employment outlook. There are many online professional discussion forums devoted to topics of employment the reduced flight engineers. [7] Aviators come together to teach and learn from one another. In online forums

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flight engineers share their personal experience and give some advices to each other about training and employment.

Analysis of specialized online discussion forums shows some reduced flight engineers work today as pilots, engineers, aircraft mechanics, service technicians or maintenance coordinators, while others are taxi drivers, security guards, sellers etc.

To work in aviation, the reduced flight engineers need to have good health and a lot of social and human capital. For example, to become a pilot the flight engineer needs to have a specific number of hours of special training and passes through the appropriate Russian aviation authorities exams. The training is very expensive. Most flight engineers have to training at own expense.

Cocpit personnel association of Russia helps few of its members-flight engineers to become a pilots. The flight engineer of airplane is dying profession in Russia and these technical specialists with high level of qualification need more extensive government help and support.

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RUSSIAN JUDGES AS A PROFESSIONAL GROUP: SOME NEW FINDINGS

In 2011, the Institute for the Rule of Law at the European University at St. Petersburg made a survey of Russian judges. In the sample were 650 judges from the courts of general jurisdiction (the judges of peace, the judges of district and regional courts). This survey was conducted in six different regions, which represent all the main socioeconomic types (according to the classification of N. Zubarevich). There are no important cross-regional distinctions and this is the marker of a good representativeness. The main questions of the survey were concerned with the professional norms and values of Russian judges, their everyday life, biographies and decision-making. The results were published as a book in the January 2012 (in Russian) and now are available on the website of the institute (http://enforce.spb.ru/images/analit_zapiski/Jan_2012_NormsValues.pdf). Here I'm going to present one key finding from our book and two new findings from this dataset.

First, the most important finding of our research is the type of borders between the professional subcultures. We define the borders of subcultures as borders between the different professional norms and values. These borders are not connected with the specialization (civil and criminal) and are not closely connected with age or education. The key difference between the subgroups in the judge's community are between the different types of professional socialization. We are describing two big groups – “ex-prosecutors” and “ex-secretaries of courts”. These two groups are totally different in the spheres of norms, values, and decision-making. These groups involve more than 70% of judges. Other professional experiences do not create the strong professional subcultures.

The Second regularity is the comparative value structure in the judge's community and Russian population as a whole. We used Ronald Inglehart's scale of values (which is used in the World values survey) in our questionnaire. After that we compared judges and other people in terms of the importance of six main values (by Inglehart). We found that friends, religion and politics (as values) are more important for usual people than judges. Also there is the same, but not such a strong difference in the values called “leisure time”. At the same time value “work” is more important for judges than for other people. Only one value, “the family”, is equally important for judges and for all other citizens.

The Third important thing about Russian judges is their difference in comparison with all other state officials. The survey of Russian officials (HSE, 2008) showed that an average official does overtime only a few days in the month. Vice versa, judges have no extracurricular work and come home immediately after their office hours only a few days in month.

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«SLAVIC SCHOOLS FOR GIRLS»: ROLE OF FRANCOPHONE UNIVERSITIES IN THE PROFESSIONALIZATION OF UKRAINIAN FEMALE ELITE (LATE 19TH CENTURY)

The role of transnational academic capital for the integration of Ukrainian women into the labour market of skilled professions and for the formation of female intellectual elite, particularly after the abolition of slavery, has not yet been a subject of focused research in Ukraine. This defined the **key goal** of this paper, aiming at gender-sensitive research on the cross-border transmission of knowledge capital by means of academic migration of Ukrainian women to francophone European Universities. To reach this broader goal the study pursues the following narrower **objectives**:

- to outline key economic, socio-cultural, didactic, ethic and cultural determinants of women's entrance into the public space of intellectual professions through French and Swiss academia;

- to trace the impact of West-European liberal model of education on gender identities and gender ethics of Ukrainian women,

- to identify the role of "knowledge transfer" by Ukrainian women, educated in francophone Universities, in the modernization and democratic developments of the Ukrainian society in late 19th century.

Key analytical concepts:

- "*gender*" is understood as a relational category, underpinning the modality of social relations between sexes [1];

- "*academic migration*" is defined as "geographic mobility aimed at cross-border education" [2];

- "*professionalization*" is conceptualized as a middle class occupation, requiring a top level of technical and intellectual competence and a certified theoretical training as well as self-organization, authorized to exercise control over the activity of persons involved in the profession [3].

- "*elite*" is understood as "a group of people of top capabilities who ensure progress in society" [4].

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