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PSYCHOLOGICAL TYPOLOGY OF SUBJECTS IN A SITUATION OF CHANGING PROFESSIONAL ACTIVITIES

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Abstract

The article considers the results of an empirical study of the characteristics of the adaptation of subjects to a situation of a change in the type of professional activity. The respondents were students of the postgraduate programs (qualification master) and undergraduate programs (qualification bachelor), students of the professional retraining program, employment service clients. Adaptation is considered as a permanently running process, which has its own dynamics, substantial and other features. In the process of constructing neural network models, it was found that in the process of adapting to a situation of changing types of professional activity, that people show common individual and personal properties. Its made it possible to identify five psychological types of subjects that have different opportunities for successful adaptation to new conditions of activity. Successful adaptation to a situation of changing professional activity is more likely for psychological types that have resistance to difficulties, a developed regulatory sphere, and labor motivation for achievements. It determined that in relation to the representatives of different psychological types require different methods of psychological, social, tutor support during their preparation for the change of the type of professional activity. The results can be demanded in the practice of employment services, personnel services of enterprises, in the educational process for the training of specialists.

Keywords: Adaptation, professional activity, psychological types, artificial neural network.

1. Introduction

Professional self-determination, which some time ago was conceived as a vital task in a certain period of professionalization, is increasingly viewed by scientists and practitioners as a process of personality development, a way to realize its potential (Harju et al., 2016; Krupetskaya, 2017). The change in scientific views is due to a revolution in the world of modern professions, prompting people to actively develop not only in the once chosen field, but also in related ones, to try themselves in completely new types of activities, and even create them. Foreign scientists note that workers are increasingly responsible for their own work and career growth (De Vos & Van der Heijden, 2017; Plomp et al., 2019). Such conditions, on the one hand, contribute to the maximum realization of one's own capabilities, and on the other, make a person concentrate his efforts on overcoming the growing demands of the environment, experiencing stress and non-standard situations.

Various aspects and prospects of overcoming life's difficulties were studied in works devoted to the study of the life meanings of the individual and her hardiness (Leontiev & Rasskazova, 2006; Leontiev, 2000), regulation of behavior and activity (Baumeister et al., 2018; Morosanova & Bondarenko, 2015), individual differences in coping behavior (Afshar et al., 2015) and viability (Froutan et al., 2015). The situation of changing types of professional activity is fully stressful and affects all aspects of the subject's life during the adaptation period). The quality of a worker's working life and professional well-being (Frolenoka & Dukule, 2017) depend on the success of adaptation to new conditions and labor tasks. However, despite the similarity of the problems facing a person on this, everyone experiences them in their own way and needs individualized help.

2. Problem Statement

Nowadays, there is a certain contradiction associated with the need to help people who find themselves in a situation of changing types of professional activities, and the lack of knowledge about the features of this process for different recipients. The problem, in our opinion, is the need to identify the types of subjects who are in the conditions of changing the type of professional activity. This will allow you to predict the possibilities of their successful adaptation to the new conditions and to carry out various types of support and support.

3. Research Questions

The subject of the study is the general typological properties of subjects that adapt to a change in the type of professional activity.

4. Purpose of the Study

Purpose of the study is to study the typological properties of subjects that determine their ways of adapting to changes in the type of professional activity.

5.   Research Methods

The empirical material was collected using computerized testing using standardized test methods. In the package of practices included: Test of hardiness (NT) (Leontiev & Rasskazova, 2006**)**; Questionnaire "Style of self-regulation of behavior" (BSRSM) (Morosanova & Bondarenko, 2015), developed under the leadership of Morosanova; Multilevel personal questionnaire "Adaptability" by Maklakov and Chermyanina (2011) (MPQ-AM); the Russian version of the Bern Coping Forms BEFO (as cited in Nabiullina & Tukhtarova, 2003); Five-factor questionnaire of personality (Big Five) in adaptation Khromov (2000); Test of life orientations by Leontiev (2000**)**; Questionnaire for determining the type of employee's work motivation, developed in line with the concept of the same name Gerchikov (LMK) (2005).

The hardiness test (HT) diagnoses the ability of a person to withstand a stressful situation, maintaining internal balance and not reducing the success of the activity. The test of hardiness includes the following four scales: hardiness, a system of beliefs about yourself, about the world, about relationships with the world (Hr); involvement, the willingness to find something worthwhile and interesting for the individual in what is happening (Cm); control (control), the belief that the struggle allows you to influence the result of what is happening (Cl); risk taking, a person's belief that all life events contribute to their development through knowledge derived from experience (Ch).

The multi-level personal questionnaire "Adaptability" (MPQ-AM) is designed to study the adaptive capabilities of an individual based on the assessment of certain psychophysiological and socio-psychological characteristics that reflect the integral features of mental and social development. The main scales of the "Adaptability" (as) method are: neuropsychic stability (the ability of a person to regulate their interaction with the environment) (NR); communicative features (properties that characterize the experience and needs for communication, as well as the level of conflict) (CF); moral normativity (the ability to adequately perceive the proposed specific social role) (MS). The overall rating is based on the Personal adaptive potential (AP) scale. The degree of objectivity of responses is evaluated on a confidence scale.

The Bern Coping Forms BEFO (Heim & Valach, 1996) is aimed at determining the main characteristics of coping behavior as conscious strategies for overcoming stressful situations. It has variants of coping behavior: cognitive coping strategies (Cg); emotional coping strategies (Em); behavioral coping strategies (Bx).

The five-factor personality questionnaire (Big Five) allows you to describe the structure of personality within the modern factor model through generalized traits-factors and their primary components. These are the following components: "extraversion-introversion" (EI), "affection – separation" (AS), "control – naturalness" (CN), "emotionality – emotional restraint" (PP), "playfulness – practicality" (PP).

The meaning of life orientation test (MLO) allows you to evaluate the "source" of the meaning of life for a person. The method is used to calculate the overall indicator of meaningfulness of life (CI). In addition, indicators are determined for five subscales that reflect three specific life orientations – goals in life (G), emotional saturation of life (LP), satisfaction with self-realization (SS) – and two aspects of the

locus of control – the locus of control-I, the idea of the strength of personality (LK-I); the locus of control-life, the idea of the manageability of life (LK-L).

The questionnaire for determining the type of work motivation (LMK) allows you to identify which of the five types of motivation is most characteristic of the Respondent. These can be the following types: instrumental type, for which work is a means of achieving well-being (IN); professional type, for which the priority is the content of work (PR); patriotic type who works for the welfare of the company and public recognition (PA); a business type that seeks to make decisions about its own activities (MA); lumpenized type that seeks to minimize labor effort (LU).

To identify the characteristics of individual self-regulation of arbitrary human activity, the Questionnaire "Style of self-regulation of behavior" (BSRSM) was used. The method allows you to diagnose a single indicator "General level of self-regulation" (GS). The questionnaire's statements are also part of six scales that correspond to the main regulatory processes – planning (Pl), modeling (MD), programming (Pr), evaluation of results (ER) − and the regulatory and personal properties of flexibility (Fl) and independence (In) (Morosanova & Bondarenko, 2015).

For statistical processing of psychodiagnostics data, the "ART-2 self-regulation" artificial neural network was used (Solomonov et al., 2018) and Microsoft Excel 2016 spreadsheet editor.

An artificial neural network based on the ART-2 topology adapts to the source data and reveals a non-linear type of dependence in the data volumes. The main feature of this network, in contrast to other clustering methods, is the presence of a dynamic number of source clusters (models). In this study, one of the key factors was precisely the presence of dynamically changing clusters.

When working with an artificial neural network, the study is carried out as a black box, the input parameters are the input data vectors and network parameters, the number of epochs (the passage of all incoming vectors through the network) is also an important factor. Using the computer program "ART-2 self-regulation" neural network allows you to flexibly configure the learning system and obtain information about non-linear relationships between incoming vectors.

The study involved respondents who are in a situation of changing activities, a total of 152 people, 91 of them are men and 61 are women. The sample included students of professional retraining programs, masters, part-time undergraduate students, and employment service clients.

6. Findings

In the course of processing the survey data using the computer program "ART-2 Self-Regulation", five clusters or models were created for the similarity of the characteristics of adaptation processes in people mastering a new type of professional activity. Each model is characterized by peak values of variables that have the strongest influence on the process of human adaptation to life changes in a given period. Thus, five types of subjects were identified that are in conditions of changing types of professional activity.

The first of the models was called "Immature". The peak values in the model under consideration were scales: "emotional coping strategies" (Em) (0.347), "moral normativity" (MS) (0.271), "lumpenized type" of professional motivation (LU) (0.247), "locus of control" (LK-I) (0.222), "control – naturalness" (CN) (0.182) (Figure 1).
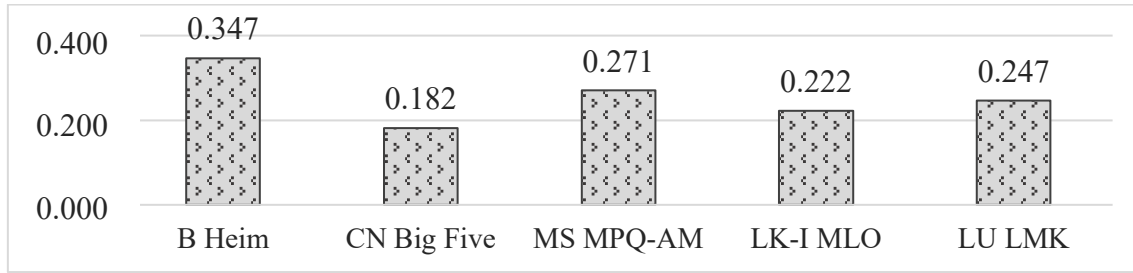
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Figure 1. Characterization of the psychological type "Immature"

Representatives of this type are characterized by emotional strategies to overcome life's difficulties, intense experience of the situation. Their behavior in the conditions of a change in the type of activity is oriented towards generally accepted, typical models, norms and rules in such situations. Demonstrate the severity of lumpenized labor motivation, which is characterized by a lack of preferences in the labor sphere, the desire to abandon responsibility, advanced training and other forms of manifestation of activity, to minimize efforts in the performance of current labor duties. The irrelevance of goal setting for respondents in this group leads to an inability to control the events of their own lives. People of this type rarely display volitional qualities and may allow rash acts. They are characterized by natural behavior, carelessness, lack of long-term life plans. The Immature type in our study includes 23.9 % of bachelors, 38.1 % of masters, 7.1 % of people receiving an additional specialty, and 20% of unemployed citizens of the total.

The next of these models can be called "Hardy". The peak values were obtained for the scales: "hardiness" (Hr) (0.292), "control" (Cl) (0.252), "communicative features" (CF) (0.244), "locus of control-life" (LK-L) (0.212), "affection – separation" (AS) (0.211) (Figure 2).
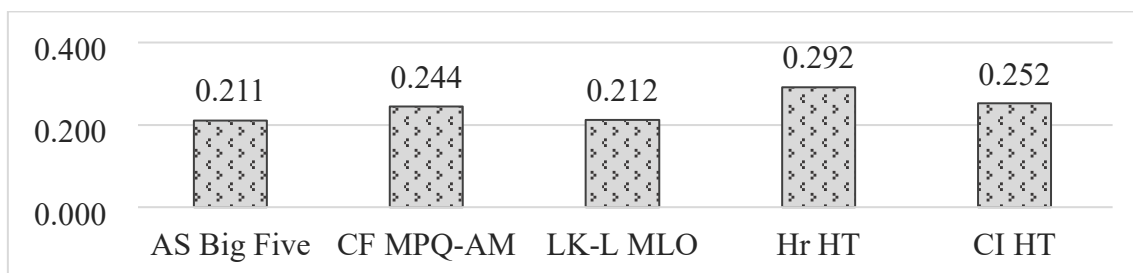

Figure 2. Characterization of the psychological type "Hardy"

Representatives of the "Hardy" type are characterized by the absence of internal tension in stressful situations due to persistent coping with stress and their perception as moderately significant. They are convinced that resistance to circumstances allows you to influence the outcome of what is happening, even if this influence is not absolute and success is not guaranteed. They are confident that a person is able to control his life, freely make decisions and implement them. Among the communicative features of this group is the presence of experience and communication needs, a low level of conflict. The ability to easily establish contacts with others helps representatives of this type to master new types of professional activities, receive help and support, information about the labor market. Representatives of this type have a social orientation of the individual, prefer to cooperate, rather than compete with people,

feel responsible for the common cause. The "Hardy" type is typical for 8.7 % of bachelors, 14.3 % of masters, 39.3 % of people receiving an additional specialty and 33.3 % of unemployed citizens.

In the third model, the peak values were the data on the scales:"meaningfulness of life" (CI) (0.267), "emotional richness of life" (LP) (0.259), "general level of self-regulation" (GS) (0.173), "planning" (Pl) (0.145), "programming" (Pr) (0.129). She got the name "Purposeful" (Figure 3).
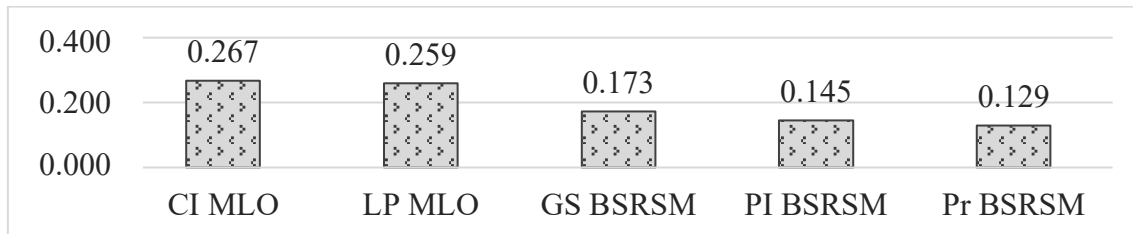

Figure 3. Characterization of the psychological type "Purposeful"

Subjects representing this type can be characterized as having found the meaning of life, having life goals. They perceive the very process of their life as interesting, emotionally saturated and filled with meaning. The general level of self-regulation is a prerequisite for achievements in a wide variety of activities. They have developed a need for informed planning of activities. The objectives of the activity are put forward by the subject independently, the plans are realistic, detailed, stable. Representatives of this type think over not only goals, but also programs for their achievement. The developed action programs are flexibly adjusted when significant conditions change. The third type included 26.1 % of bachelors, 27 % of masters, 32.1 % of people receiving additional specialties and 40 % of unemployed citizens.

The fourth model combined respondents with peak indicators of scales: "extraversion – introversion" (EI) (0.270), "playfulness – practicality" (PP) (0.259), "cognitive coping strategies" (Cg) (0.202), "master's type" of labor motivation (MA) (0.179), "professional type" of labor motivation (PR) (0.178). She is called "Active" (Figure 4).
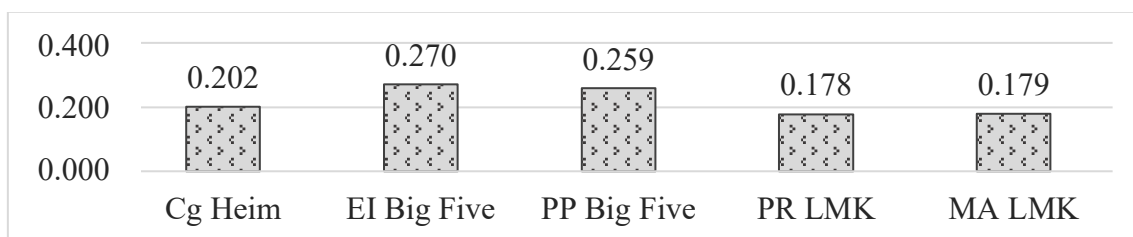

Figure 4. Characterization of the psychological type "Active"

Representatives of this type are characterized by a certain predominance of introverted properties, reliance on their own strengths, restraint, and preference for theoretical and scientific activities. These people are well adapted to everyday life, persistent in achieving the goal, work hard and prefer constancy and reliability. In a stressful situation, to which the situation of changing the type of activity relates, they prefer cognitive coping strategies, they seek to realize, comprehend, and accept difficulties. Demonstrate signs of housekeeping motivation by voluntarily accepting responsibility under conditions of freedom of

action. They are interested in the content of the work, the ability to express themselves in work and receive well-deserved recognition, which is typical for the professional type of motivation. The type of "Active" in our study includes 34.8 % of bachelors, 7.9 % of masters, 17.9 % of people receiving an additional specialty and 6.7% of unemployed citizens.

The peak values in the fifth model were scales: "involvement" (Cm) (0.303), "emotionality – emotional restraint" (ER) (0.253), "playfulness – practicality" (PP) (0.237), "personal adaptive potential" (AP) (0.237), "affection – separation" (AS) (0.220). This gives reason to call this type of subjects "Adaptive" (Figure 5).
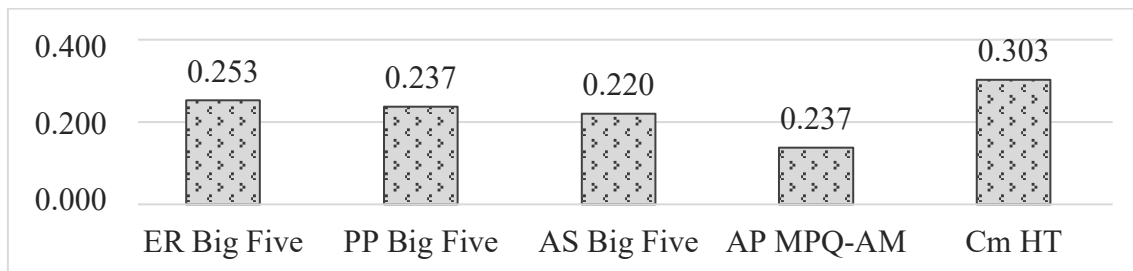

Figure 5. Characterization of the psychological type "Adaptive"

Subjects of this type are self-confident, enjoy their own activities, seek to extract valuable experience for themselves in any circumstances. They are emotionally stable, well aware of the requirements of reality, constant in their plans. They show interest in various aspects of life, are easy to learn, but unlike representatives of the Active type, they are not serious enough about systematic activities. When interacting with other people, they prefer to keep their distance, to maintain independence and independence. They adapt quite easily to new conditions of activity, adequately orient themselves in situations, and quickly develop a strategy for their behavior. The fifth type of "Adaptive" in our study includes 6.5 % of bachelors, 12.7 % of undergraduates and 3.6 % of people receiving an additional specialty.

7. Conclusion

The processes of adaptation of the subjects of labor to the development of new types of professional activity have similar characteristics. This allows you to highlight the types of subjects in a situation of changing professional activities.

Five types of subjects are distinguished under conditions of changing types of professional activity, which differ in the characteristics of adaptation processes. Four types of subjects have individually-personal characteristics, with a high degree of probability facilitating adaptation to new conditions of activity. We attributed to such types: "Hardy", "Purposeful", "Active", "Adaptive" type. Type "Immature" is less capable of successfully adapting to new conditions of activity due to a combination of individual and personal properties.

The revealed typological features of subjects in a situation of changing types of professional activity indicate that for a modern Russian person, professional activity is not an unconditional value and meaning of life. At the same time, it continues to remain for many able-bodied people a source of

livelihood and a way of self-realization. This contradiction is resolved through the development of basic educational programs (undergraduate, graduate) and additional educational programs. The development of educational programs allows a person to get a new qualification and change professional activity at will or in case of loss of work.

On the other hand, representatives of the "Immature" type use training time as a way to delay the start (continuation) of work, not to assume the labor functions and tasks of self-sufficiency. It is worth paying attention to this fact in connection with the number of students at different levels of higher education and the unemployed assigned to this type. This poses the Russian education system the task of changing the ways of interaction between all subjects of the educational process, early involvement of the future employee in the professional community, providing the student with various types of social, psychological, tutorial support. We assume that the quantitative ratios of different types of subjects changing professional activities may require additional research.

Acknowledgments

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