

Psychological Security of the Individual as a Functional Component of Professional Activity

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Abstract: *Consideration of professional safety as a functional component of professional activity includes analysis of categorical methodological grounding of this concept in psychological work in the context of ergonomic provision of effective professional activity by a complex of external worker's and individual worker's protection, where special attention is paid to dangerous professions. First of all, took into account the need of accidents causes at work; determining the optimal workload in professional activities; identification of human reserve capabilities and ergonomic optimization of interaction processes with the production environment. The general, differentiated indicators of susceptibility to danger are specified; the preconditions for the formation of psychological security are determined; the factors of erroneous actions' occurrence at performance of professional activity are allocated; the psychological provision of labor safety through a system of organizational measures is outlined. Historical digression in the application of a systematic approach to the analysis of professional activity, as well as general psychological provisions of the concept of systemogenesis of professional activity, the concept of structural and functional organization of self-regulation, the concept of maladaptive activity (risk readiness) and the concept of product ergonomics, personality in assessing the quality of human life. Elaboration on the definition of the work psychological signs and its gradations and development of receptions of professional self-preservation of the person is presented.*

Keywords: *occupational safety, professional motivation, system approach, labor psychology, ergonomic support, dangerous professions, accidents.*

How to cite: Lazorko, O., Koval, S., Hrek, O., Shkrabiuk, V., Kulesha-Liubinet, M., & Bihun, N. (2021). Psychological Security of the Individual as a Functional Component of Professional Activity. *BRAIN. Broad Research in Artificial Intelligence and Neuroscience*, 12(4), 455-473. <https://doi.org/10.18662/brain/12.4/259>

Introduction

The study's relevance of specialist's successful functioning psychology is due to the real problems of psychological security of the individual within his professional development. Therefore, we will try to find the categorical and the methodological status of this concept in the system of psychological knowledge. First of all, consider the central aspects of occupational psychology, where occupational safety is considered in terms of forming an adequate thinking of the specialist and a holistic system of knowledge, skills and abilities that are essential for making informed decisions at the individual level. This applies to the preparation of a particular employee, taking into account his personal characteristics for a long and guaranteed safe work. This requires the formation of security culture and appropriate worldview and consciousness; acquisition of moral values in relation to security; obtaining the necessary set of knowledge; development of personality qualities that would help increase security (Bezliudnyi et al., 2019; Nerubasska et al., 2020; Nerubasska & Maksymchuk, 2020; Palamarchuk et al., 2020).

First of all, the process of formation and professional activity psychological safety development is the result of the functioning of various objects of ergonomic support: production processes, processes of organizational systems, creation and further operation of complex human-machine complexes in industrial enterprises. Human security is ensured by a set of external protection (technical, regulatory, social, sectoral), individual protection, which is determined primarily by behavior, human lifestyle, necessary knowledge and psychological training, technical means and natural protection, which is determined at the biological level.

Literature review

Most often it is a question of safety for representatives of dangerous professions, and the branch of psychology safety of professional activity where questions are the correct social position formation, motivation for safe carrying out of works, motivation of reasonable behavior in all spheres is engaged in its life (at home, at work, during leisure, etc.), obtaining the necessary set of knowledge to ensure individual and collective security (Buzunov, 1991).

At once we will note that the subject of this branch researches are mental processes which are generated by activity and influence its safety; mental states of a person, reflected in the safety of its activities; personality traits that are reflected in the safety of activities (Nosov, 1994).

Thus, determining the accidents' causes at work, they can include such mental processes as lack of attention (decreased or impaired concentration, distribution, switching attention); various senses' defects (partial loss of vision, deafness, etc.); violation of the connection between the sensory and motor centers of the higher parts of the nervous system; defects associated with loss of coordination and coordination of movements; insufficient ability to distinguish weak signals (signs of danger); lack of observation; weakly critical thinking; insufficient ability to predict developments; difficulties in assessing the situation and choosing ways to behave in it. Among mental states distinguish aggression, hostility; impulsiveness (actions precede analysis, assessment of the situation); emotional imbalance, depression, low endurance, fatigue, anxiety (fears, disturbed mental balance); dissatisfaction with everyday life (the employee does not know what he wants; how to achieve their desires); state of stress; alcoholism, drug addiction. Mental qualities of the employee, which contribute to accidents, are expressed in such signs as egocentrism (the employee does not pay attention to the thoughts, interests, mood of other people, inattention and insensitivity to the worries and feelings of others); propensity to risk (excessively high or low); safety, negligence, negligence; fatalism; antisocial attitudes; incompetence; intolerance to comments; inadequate self-esteem; lack of self-control; excessive self-confidence; conflict; avoidance of responsibility; low motivation to work; neglect of safety rules (Nikiforova, 2006).

Therefore, it becomes clear that solving problems to determine the optimal workload, identify backup capabilities and ergonomic optimization of interaction with the production environment requires the identification and neutralization of phenomena and phenomena that may threaten the psychological safety of the subject of professional activity (Zinchenko & Gordon, 1975). Thus, both unsuccessful professional self-determination and inconsistency of psychological and psychophysical features of a person with ergonomic requirements, stresses in professional activity that do not meet occupational safety standards, and inadequate reflection of factors of the production environment can be dangerous.

In the works of many researchers (Bodrov, 2001) the general differentiated indicators of propensity to danger are established, among which, first of all, it is a question of emotional properties and features of temperament, and further - about low qualities of attention, insufficient sensorimotor coordination and observation, excessive risk aversion. Also among the psychological factors that affect occupational safety, professional motivation is important. Thus, under the influence of strong motivation, an

event that is undesirable seems less likely than in reality; when performing the simplest or most difficult tasks, the strength of motivation is significantly reduced; people with a weak type of nervous system prefer simpler tasks; individuals with frequent accidents who are more focused on avoiding failure than on achieving the goal; the stronger the motive for achieving the goal, the stronger the threat of achieving it (Virna, 2015).

To confirm the above, we can cite the generalized provisions presented in the dissertation of Shlykova (2004), who emphasizes that the dynamics of psychological security are determined by the perceptual and mental operations, individual-typological features, personal characteristics, conditions of activity, subject-object relations, the ergonomic state of the environment.

Prerequisites for the formation of psychological security are compliance with the needs, values, capabilities of the subject to the reflected characteristics of reality, a high level of ergonomics of arbitrary processes, corporate culture, and personal qualities of the subject: assertiveness, risk appetite, social and professional activity, adequate perception of reality. The level of risk readiness is a factor that determines the level of psychological security development. The researcher believes that generalized stable ideas that meet the needs, interests, intentions, goals, plans of man, determine ways to form a psychologically safe existence. The analysis conducted by Shlykova (2004) showed that the development and formation of psychological security are determined by the presence or level of manifestations of contradictions between the values of the subject and the reflected characteristics of reality.

Categorical-methodological substantiation of professional safety in labor psychology

Within the study of occupational safety, namely the elucidation of the causes of erroneous actions during professional activities, scientists has identified three factors: 1) emotions associated with a particular event, professional situation and task; 2) uncertainty of information, if it is not enough to assess the situation; 3) the significance of the situation (Anderson, 1990; Lazarus, 1991). It is a well-known fact that the peculiarities of emotions and states manifestation, the degree of expression and selectivity of cognitive processes are closely interrelated. Cognitive processes and emotions are related to the subject's behavior, due to his attitude to environmental stimuli, as well as assessing the significance of the situation,

updating previous experience in constructing its images and predicting its development and expected consequences.

Psychological security, which is manifested, in particular, in the adaptability of the subject, in his willingness to make decisions, not only becomes increasingly important in human labor, but also, as a result of mental activity of the subject, affects the formation of his personal characterological qualities. Thus, one of types of arbitrary mental activity of the subject considers mental self-regulation of functional states of the person during the performance of difficult professional activity which influences the formation of adaptive properties of the subject and defines its efficiency, working capacity and psychological safety (Dikaya & Makhnach, 1996).

Occupational safety psychology directs efforts to activate the spiritual components of the working person's personality, to create a motive for high professionalism, productive principles as a guarantor of others' lives and responsibility for their actions as a lifestyle. The psychological stimulus to self-improvement, self-knowledge and self-control should not be the fear of punishment (fine or release), but shame. The problem of security is the problem of freedom of choice of action and the right to personal responsibility for one's actions in each specific situation. That is why in the psychological portrait of "non-trauma" it is difficult to find features of pessimism, distrust, anxiety, egocentrism, aggression, maximalism, expressiveness. The psychological situation, mental states and low level of psychophysiological professionally important qualities of the employee often affect in such a way that the last chance of a person to survive, avoid and prevent a stressful situation is lost.

It is necessary to note the mandatory minimum knowledge of the basics of occupational safety psychology basic for persons representing dangerous professions: first, knowledge helps to properly understand their psychological characteristics and find the most rational ways to optimize professionally important qualities; secondly, this knowledge makes it possible to understand the psychological characteristics of people, without which it is impossible to achieve coordinated joint work with a team; thirdly, this knowledge makes it possible to predict the specific effects of various factors of the production sphere, the peculiarity of the processes of vocational training and the use of the recommendations of psychological science in practice; fourth, this knowledge will help to organize the work of professionals so that they could be guaranteed to avoid and maximally protect themselves from injuries and accidents (Marynenko, 1991).

The scientific approach to the problem of threat to human life indicates the need to develop the intellectual and moral aspect of prevention of injuries, accidents and dangerous psychological and legal acts of protection of working people - this is the social order of today. Therefore, the psychological provision of occupational safety involves the implementation in practice of such measures as professional selection (selection) of personnel; identification of persons (groups) of risk; professional training (formation of individual safe style of activity, motivation for safe work); detection and elimination of unfavorable working conditions (providing employees with appropriate protective equipment); optimal organization of work and rest; ensuring appropriate work motivation; individual and group prevention of safe behavior (teaching equipment, safety training, etc.) (Bodrov, 2001).

Recently, the conditions of modern socio-economic development of the Ukrainian state clearly demonstrate the transformation of the psychological phenomenon of professional safety for non-stressful professions. The point is that the more tense and dangerous moments in a socio-economic or historical-political development a country and society experience, the more it affects the general content of human security, in particular one of its subspecies - professional security. After all, the profession is the basic mental construct of modern society and, as noted by Klimov, it is the culture of any society is a set of possible and diverse professional achievements of people in general (Klimov, 2009). In the same context Pryazhnikov (1996) notes that the essence of professional self-determination is the independent and the conscious finding of the meanings of work performed and all life in a specific cultural-historical (socio-economic) situation.

Social pressure, dissatisfaction with the work's economic equivalent, the profession's declining prestige, declining mutual trust between staff and administration, prognostic uncertainty of social status, threat of unemployment, distress of uncomfortable and dangerous working conditions – this is the main but not final list of factors affecting professional reliability. It is necessary that the knowledge, skills and abilities of safe behavior, combined into a single system, form an "alloy" that would lead to the formation of competence as a willingness to perform any practical and theoretical life tasks, including in the field of culture security.

Golovanova (2008) emphasizes those professions as types of purposeful human activity are divided into production, creative, labor, humanitarian and others. They require special training, theoretical knowledge and practical skills, a special state of health, the presence or

absence of responsibilities (such as "freelance artist"), vocation, independence of choice, material reward, social evaluation, connections with certain social groups. Also at the present stage, the profession includes socially unacceptable occupations, in particular: begging and prostitution, various types of criminal activity, namely: robbery, theft, as well as such activities as witchcraft and divination.

We should not forget that it is the profession that is chosen, received, acquired, assimilated, given, possessed; it is mastered; it can be changed, exchanged; it is taught, that is, it is perceived as an inanimate object and a certain essence that moves in time and space (Golovanova, 2008, p. 27). The profession can be the subject of love, sympathy and antipathy, that is, to act as a living substance: it can be loved or hated; she may or may not like it; you can be faithful to the profession or betray it; to dedicate oneself to the profession or to be disappointed in it (Golovanova, 2008, p. 26). As an active actor, the profession requires, allows, enables, teaches, entices, promotes development, develops, and provokes, changes personality. Its importance for a person lies in personification: it is thought of as a person who can be upset or happy, give life force or be disappointed (Golovanova, 2008, p. 28).

Thus, the profession is valued by society and can be prestigious, necessary, relevant, popular, promising, decent, fashionable, popular, high- and low-paid, difficult, harmful, dangerous and so on. (Tolochek, 2006, p. 161) notes that in the late twentieth century, there were more than 20 thousand professions and more than 40 thousand specialties, but today there is still no single, generally accepted classification of the professions, because depending on scientific and practical tasks professions are classified according to different criteria: scope and object of work (nature, technology, systems, artistic reflection of reality, work with people); for the purpose of the activity (gnostic, transformative, inventive); by means of labor (representatives of crafts, machine-manual labor, which use automatic systems and are associated with the predominance of functional means of labor); by working conditions (domestic microclimate, work in the open air, moral responsibility, unusual and extreme working conditions); by the degree of labor regulation (automatic, semi-automatic, template, executive, independent creative).

When discussing working conditions, most scientists point out that there are no safe occupations: in each of them, despite the external well-being of some, there are factors that are harmful to health. Each type of occupation, profession and specialty corresponds to its own set of specific harmful factors for this activity, as well as its "bouquet" of occupational

diseases. The invention of these factors, both general and specific, is necessary for the organization of a program of measures for the prevention of occupational deformities of the individual.

Historical digression in the application of a systematic approach to the analysis of professional activity

Even in the works of Arkhangelsky (1958) the first attempts were made to apply a systematic approach to the analysis of professional activity, which identified units of labor actions, operations and techniques of movement that reflect the psychological essence of the activity. Considering the work of a professional as a conscious process that reflects a person's attitude to the surrounding reality, the scientist points out that the components of the structure of activity are dynamic and there are relationships between them, which can be transformed.

But under any circumstances, the central figure in the psychology of occupational safety is man, who is not only a biological being, but also the "focus" of the social system. It is a mobile, self-managing and integral system in which all the laws are organically combined essence: mechanical, physiological, chemical, biological, social, energy, information, etc. Everyone is not born, but becomes a subject in the process of their activities, communication and other activities. Thus, the study of various activities as the realization of man in the profession should cover various aspects of the work process, its organization and data on the performance of this work by a man not only on external indicators, but also on data revealing the regulation of this activity. Therefore, the psychological analysis of professional activity always takes place on two interrelated levels, which reveal the external relationships and those that exist between the simple moments of work (appropriate activities, subject and means of work) and the person.

The principal moment of mastering the activity is its acceptance by the person, which is determined by the extent to which the individual's idea of the profession will correspond to his needs and abilities. When choosing a profession, a person seems to "project" his motivational structure on the structure of factors related to professional activities that allow satisfying the need. In a complex motivational process, comparing the capabilities of professions with their needs, a person decides to accept or abandon the profession. Acceptance of the profession generates a desire to perform activities in a certain way, "... generates a certain determining tendency and

serves as a starting point for the formation of a psychological system of activity" (Shadrikov, 1981, p. 55).

In the concept of professional activity's systemogenesis of Shadrikov (1981) we find the generalized description of the professional activity's psychological components:

1. Formation of motives of professional activity provides: a) shift of a motive for the purpose of labor activity; b) for the formation of professional motivation, it is important for a person to "accept" the profession and find the personal meaning of activity; c) as a result of the formation of professional motivation is formed holistic behavior of the employee.

2. The formation of the professional activity's purpose involves the selection and consideration of the following factors: a) the central point of activity is its purpose; b) the goal is considered as an ideal image of the result and the level of pursuit to which you should strive; c) the purpose of professional activity is the image of the result and the production task set in certain conditions; d) the main stages of goal formation include identifying the field of acceptable results and clarifying the specific best goal.

3. The formation of ideas about the program of activities involves: a) the formation of ideas about the components (structure) of activities; b) forming an idea of how to perform activities; c) the formation of the idea of the program of activities as a sequence of adequate actions and methods.

4. The formation of the information basis activity (IBA) involves the selection and consideration of the following points: a) the levels of the formation of IBA include sensory-perceptual level (perception of information); cognitive level (assessment of the importance of information); image-operational level (information processing and construction of information blocks); b) features of IBA formation - information often changes, which requires IBA flexibility; the versatility of information necessitates a rapid switch from one type of information to another; in) in general, the formation of IBA involves the formation of IBA in material terms (the ability to perceive and process real signals that carry information); formation of IBA in the ideal plan (ability to build information images and values on the received signals).

5. The formation of the decision-making unit is based on the following points: a) the decision itself is considered as a choice of one alternative from several; b) the general scheme of decision-making includes awareness of the problem; its expansion; verification of decisions; c) the formation of the decision-making unit involves the assimilation (development) of the decision rule, the method of solution and the

formation of the criterion for achieving the goal and the advantages of choosing the method of implementation; d) there are two types of solutions: deterministic, which are based on clear logic, and probability, based on the calculation of the most favorable probability of achieving the goal.

6. The formation of the subsystem of professionally important qualities (PIQ) occurs under the following prerequisites: a) a person already has certain qualities and when mastering professions are their restructuring in accordance with the characteristics of a particular professional activity; b) the general logic of such restructuring of activities includes elements of restructuring qualities in accordance with professional activity; the emergence and development of new qualities and abilities; formation of the individual style of activity.

7. The formation of the psychological structure of professional activity involves: a) mastering the profession as a process of objectification, individualization of normatively specified (approved) mode of activity; b) the main stages of mastering the profession - cognitive (cognition, mastering the normative way of activity); practical stage as the central moment of the psychological structure formation of activity, thus at first separate actions are mastered, and then - activity as a whole (Shadrikov, 1981, pp. 34-130). As can be seen from the analysis, the study of professional activity as a holistic object is impossible without the separation of "professional man" as "the link that organizes the system, directs it to achieve a certain, predetermined result and ensures the plasticity of its functioning" (Lomov, 1984, p. 37). After all, the selected components of professional activity are closely related to the problem of experiencing various threats to successful implementation, namely the increase of intellectual and psychological load, uncontrolled, continuous and progressive imbalance due to prolonged professional stress, emotional stress, etc., which leads to urgent need, search for a new paradigm of security in the interests of professional self-preservation of the individual (Lazorko, 2015).

The study of this problem of professional self-preservation of the individual concerns the analysis of motivational, cognitive, operational and affective components of the subject of labor by its social attitudes, professional orientation and a certain readiness of individual-typological properties. Given the available theoretical and empirical developments, it should be noted that in the last two decades, research in the field of psychology of professional activity is aimed at studying the psychological mechanisms of regulation, substantiation of principles and methods of professional suitability, search for ways and means of psychological performance, etc. (Klimov, 1998; Konopkin, 1980).

Thus, Klimov (1998, pp. 8-12) uses psychological features of work and their gradations for this purpose. The first sign is the awareness of the social value of the result of labor. The level of this awareness is determined on the basis of: a) the level of representation of the subject of labor knowledge about the requirements for the result of work; b) the nature of knowledge of the social value of the expected results of work for themselves and for society; c) emotional manifestations of the subject of labor in the activity and their adequacy to his ideas and knowledge. The second sign is the awareness of the obligation to perform the received case in the given norms. The level of this feature representation is determined on the basis of: a) assessment of the nature of awareness of the need and responsibility for the work within the specified limits; b) assessment of the adequacy of the emotional state of the subject of labor level of his awareness. The third sign is the conscious use of means to achieve professional goals. This feature is also considered from the standpoint of equal representation of the following characteristics: a) the level of theoretical readiness to perform professional activities; b) the level of formation of professional skills and abilities; c) the adequacy of emotional manifestations in accordance with the level of professional readiness of the subject of labor. The fourth feature is the awareness of interpersonal relationships. The assessment of the levels of this feature is based on the depth of knowledge and understanding of the subject of labor, the contribution of other people to the creation of material values of society, which he uses in his professional activities to create new socially significant values.

Konopkin (1980, p. 205) built a general principle model that reflects the internal functional structure of the process of self-regulation and identified the following components of this structure: subjective model of significant operating conditions, the program of actual executive actions, system of success criteria, information about real achieved results, decisions on system correction. Conscious self-regulation, the scientist calls a systemically organized process of internal mental activity of man to initiate, build, maintain and manage various types and forms of arbitrary activity, which directly realizes the achievement of human goals. An important role in the process of self-regulation of activity and the acquisition of a given level of professional suitability is played by the subject of the goal of the activity, which reflects not only the real or ideal result of the labor process, but also the regulatory degree of its achievement. This means that under the direct influence of the goal is formed "subjective model of significant operating conditions" and "program of executive actions". The functional unit "performance evaluation" regulates and corrects behavior to achieve

results that meet the criteria of successful professional activity, and therefore gives it a purposeful and purposeful nature (Konopkin, 1980).

Lomov (1984, p. 216) identifies a number of "formative" components of the system of activities, such as motive, purpose, activity planning, processing of current information, operational image (conceptual model), decision making, actions, verification of results and correction of actions. According to the scientist, these components are interconnected, because they regulate the functions of the mental in the preparation, organization and performance of activities.

Also, the complex nature of the study of psychological security was closely related to the theoretical study of the phenomenon of risk-taking (Kornilova, 2003; Petrovsky, 1992). In general, risk appetite is based on the acquired skills to make the right assessments, make and implement the right decisions in situations of uncertainty. Considering the propensity to risk as a personal threat to the safety of energy systems, one should avoid simplistic conclusions. The propensity to take risks can be based not only on the desire to enjoy the experience of danger and satisfy selfishness, but also with the conscious desire to expand the boundaries of their professional capabilities and the experience of overcoming danger.

Algin (2002) defines risk as an activity associated with overcoming uncertainty in a situation of inevitable choice, in the process of which it is possible to quantify and qualitatively assess the probability of achieving the intended result, failure and deviation from the goal. For different entities operating in the same environment, the situation may be different - risky for one and not risk for another. Thus, the concept of "risk" is inextricably linked to the representation of the subject's action and can be defined as a characteristic of this action, but the characteristic of the action as the risk is not attributive, but evaluative. Risk is an assessment of the possibility of performing an action, the possibility of achieving a result, the corresponding goal. It is also necessary to emphasize a number of general patterns found in risk preparedness studies. First of all, it concerns age and professional features. Yes, it is noticed that with age the willingness to take risk decreases. It is influenced by the nature of work: the military has a higher readiness than students.

Willingness to take risk in modern psychology is associated with the ability of the subject to achieve the goal and regulate their behavioral strategies, considered as an maladaptive form of behavior of an active person, especially in the absence of developed structures, as a special way of thinking uncertainty (Petrovsky, 1992).

And in the concept of Kornilova (2003) the willingness to take risk is interpreted as a personal property of self-regulation, which allows a person to make decisions and act in situations of uncertainty. Thus, it is not so much a personal disposition as a sufficiently generalized description of the subject's ways out of situations of uncertainty. As an individual characteristic, this readiness also implies the subject's assessment of his past experience.

The phenomenon of safety in the professional realization of the individual finds common features in the assessment of quality of life (Olefir, 2012; Rean, 1988). Quality of life is a subjective and individual perception of a person's position in life, which is manifested in the active implementation of goals and strategies to improve their own lives. That is, the essence of the quality of life lies in its socio-psychological nature, which is manifested in the perception of human self-satisfaction in various spheres of life, its arrangement, which is associated with the level of its needs.

According to the scientific position of Spilker (1996), quality of life is the level of a person's satisfaction with his life according to his own subjective self-esteem. In the provisions of economic psychology, we find three described factors that are necessary for a person to feel included in a full, meaningful, creative and happy life: a sense of competence - associated with confidence in their abilities and capabilities, this feeling "I know I can ", because it is important for a person to feel like a professional in his field; the feeling of self-determination is the awareness of oneself and only oneself as the cause of one's actions, because if a person succeeds in this, then there is a pleasure from activity, there is a feeling of independence, confidence in the future, in one's own abilities; included in the system of meaningful relationships, which provides a person with a sense of need, self-importance for other people, which can be manifested in the process of joint activities (Deineka, 2000). In general, a person is able to identify the quality of life with the prospect of existence, happiness, health, age, and so on. Therefore, it is often associated with a subjective feeling close to personal well-being. Therefore, often in the structure of this psychological phenomenon indicate the separation of the emotional component (happiness) and cognitive-perceptual (life satisfaction) (Prystupa & Kurish, 2010). These structural components are realized in the professional sphere, which is expressed in the formed focus on the other, conflict-free communication, trusting relationships with other people and understanding of others, which determines the duration and fullness of professional life.

The multi-vector nature of the study of psychological safety was closely related to the recognized provisions of the concept of ergonomic

support, creation and operation of complex human-machine complexes (Zinchenko & Zotova, 2010) and the concept of ergonomic product management (Danilyak et al., 2010), because improving efficiency social production is impossible without further acceleration of scientific and technological progress and the introduction of new equipment and technology.

Improving productivity and quality of work is one of the most important means of achieving high production efficiency. With the development of production changes the conditions, methods and organization of human activity, acquire significant changes in the function, role and place of man in the labor process. The capabilities of the individual increase due to the development of means of labor. This opens up greater opportunities to facilitate human labor, its release from the implementation of monotonous, time-consuming manual operations. However, at the same time the development of production also leads to the improvement of parameters of machines and mechanisms, increasing the level of automation of technological processes, which leads to the emergence of new factors that adversely affect the human body. This forces a person to sometimes work at the limit of functionality. As a result, it is necessary to coordinate the parameters of technical devices with human capabilities. Optimization of labor activity is possible only if a person's ability to work is assessed not only by quantitative and qualitative indicators of work tasks, but also by psychophysiological disorders in the body, which gives reason to judge what internal stress achieved this performance (Zinchenko & Zotova, 2010).

Based on the definition of ergonomics as a science of systematic optimization of human labor and the conditions of its implementation in the systems "man - tools - object of labor - environment" ("man - technology - environment"), the study of the concept of ergonomics management, its effectiveness is determined by the design of convenience and comfort conditions of effective human activity through the functioning of systems "man - technology - environment", maintaining the health and development of the personality of the person who works (Danilyak et al., 2010). One of the most important tasks of the ergonomic approach is the selection and substantiation of complex criteria for the effectiveness of "man - machine - environment" systems, which would contribute to the coordinated functioning of a single system with physiology, psychology and occupational health, systems engineering and technical aesthetics. In general, effective management of product ergonomics involves not only the accumulation of data on "human factors", but also a holistic study of individual types and

forms of human activity, creating methods for its analysis and formalization, identification of all factors that determine its effectiveness.

The presented fundamental developments of researchers formed the basis for the development of methods of professional self-preservation of the individual and were presented in the scientific work of Shlykova (2004):

- implementation of a personal professional plan (scenario of professional life);

- displacement of "motives of false self-actualization", which generate unreliable goals and dreams to the detriment of stable human integrity (overcoming disintegrating consciousness);

- active position in professional life (the specialist should not feel like a victim of circumstances; he should be an active person in an active professional environment, which often causes obstacles to professional development);

- readiness for professional self-change, for inclusion in new projects, lability of installations, and therefore development of those qualities which are necessary in the modern changing society (conviction and confidence in the forces, the success, involvement in the decision of socially significant affairs, lack of resistance to innovations, ability to independent choice in professional activity, individual responsibility, competitiveness);

- knowledge of one's own individuality and its use in professional life (to develop not only the ability to think, but also not to think, calm the mind; control the flow of thoughts and drive away unwanted thoughts depicting negative developments; strengthen your life potential, resilience, achieve high professional qualification, consider it as a source of independence; to prepare oneself for sharp turns of destiny and construction of new models of behavior; trust more in the inner voice, do not commit self-sabotage, emphasizing that "I must, I have to", do not convince yourself of the inevitability of obstacles, do not postpone pleasant things until all the unpleasant things are done, save positive energy, etc.);

- mastering an individual system of adequate means of overcoming negative states (maintain a positive attitude towards yourself and the field of activity, where the specialist gets control over the circumstances; use "coping" techniques to help cope with obstacles; in some cases - and "psychological disconnection" that helps to perceive negative information in doses, etc.);

- counteraction to professional aging (use of positive mood; creating an image of oneself as impeccable; thinking only about the positive development of future events; striving to achieve at least a little success

every day, promotion; desires only in a positive form (I can, I can), and in the present tense).

It should be noted that the individual differences of people in the manifestation of the development of these methods of self-preservation - are the defining characteristics of their professional reliability and suitability for a particular activity. It should also be noted that professional development is often accompanied by periods of crisis, deadadaptation, stagnation, regression, professionally undesirable tumors, as well as professional degradation.

This usually leads to interpersonal conflicts, emotional burnout and other personal deformities, as well as professional destruction. In one of the works of J. Verna the main risks of manifestation of professional deformations of personality are singled out, among which - blocking the development of professionally important qualities of a specialist; initiation of personal alienation of the specialist, loss of professional maturity of the specialist (Virna, 2015). Detailing each of these risks allows us to consider the psychological phenomenon of occupational safety as a multilevel and dynamic system, which localizes a large number of complex processes associated with the formation of motives, goals, plans, operational images, and so on. In general, speaking about the professional safety of the individual, we can talk not only about the prevention of personal distortions in their profession, but also about the choice of social roles, professional stereotypes, lifestyle and lifestyle itself. In this case, the profession or professional roles can be a means to implement a particular way of life or life stereotype.

Conclusions

Given the content of professions and the specifics of professional implementation, full of various risk factors, it can be stated that the research practice of psychology is inseparable from the social component, social needs associated with the tasks of training, education, selection of personnel used in material and spiritual production and stimulation of the activity of the person and collective.

Consideration of occupational safety as a functional component of professional activity includes analysis of categorical and methodological substantiation of this concept in psychology of work in the context of ergonomic provision of effective professional activity of external and individual worker's protection complex, where special attention is paid to dangerous professions. First of all, the need to take into account the causes

of accidents at work; determining the optimal workload in professional activities; identification of human reserve capabilities and ergonomic optimization of processes of interaction with the production environment. The general differentiated indicators of susceptibility to danger are specified; the preconditions for the formation of psychological security are determined; the factors of occurrence of erroneous actions at performance of professional activity are allocated; the psychological provision of labor safety through a system of organizational measures is outlined.

Historical digression in the application of a systematic approach to the analysis of professional activity, as well as general psychological provisions of the concept of systemogenesis of professional activity, the concept of structural and functional organization of self-regulation, the concept of maladaptive activity (risk readiness) and the concept of product ergonomics personality in assessing the quality of human life. Elaboration on the definition of the psychological signs of work and its gradations and developments of receptions of professional self-preservation of the person is presented.

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