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Development of Mental Representation of Movements in Children as a Means of Forming Sports Skills and Reflexivity

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Abstract

The article presents the theoretical generalization of the need to use mental imaginary representation of movements in teaching children sports skills in football. The aim of the study is to investigate the characteristics of the sensory-perceptual information processing by children 7-12 years old (mastering motor skills in football), depending on the level of their imagination development and the use of mental motor images. To determine the most effective and often used mental images by young athletes and the ways of representing them we used the "Movement Imagery Questionnaire for Children". This study involved 35 boys from Kyiv football sports section aged 7 to 12 years old. Based on the adapted methodology "Movement Imagery Questionnaire for Children", data were obtained that indicate the performance of the applied method of mental representation of movements in the formation of motor skills. The study contributed to a more complete understanding of the mechanisms of mental representation of movement, including such parameters as the physical reaction of athletes to mental representation of a situation; features of the environment in which they are performing exercises; pace; remembering the mental image; related emotions and the way of image representation. Knowing the ability of children to represent mentally the movements they perform can help sports psychologists and coaches develop mental representation in young athletes, which will help improve motor skills when performing real exercises during the training process and competitions.

Keywords: sensory-perceptual activity, mental representation, mental image, motor skills, reflection.

1. Introduction

In psychological science the problem of the development of sensory-perceptual activity is considered as one of the urgent. Sensory-perceptual processes as regulators of human interaction with objects and environmental phenomena and the main forms of cognition are the basis of mental development and an important condition for human life. The concept of "sensory-perceptual activity" encompasses sensory perception and perceptual actions that provide conscious sensory allocation of certain properties of the



objects being examined with the subsequent transformation of sensory information into a reflection of reality in the form of constructing an image adequate to the objective world and purpose of the activity.

This concept emerges from scientific studies of psychomotor processes that connect the external world of people's physical body with their inner world – needs, mental processes and conditions, and originates from the experimental work of the outstanding Russian scientist I. M. Sechenov, who was the first to introduce these terms into scientific circulation. These studies arose as an important direction, a necessary degree of transition to the study of the most important and popular subject of psychological research – human cognitive processes.

Depending on the complexity, it is customary to name three levels of the psyche or mental reflection of reality: these are sensory and perception, mental representation and the higher level – the verbal-logical level. The transition from the sensory to the perceptual reflection level is a further development of sensory – a significant increase in the number of cumulative sensations, the complexity of the analyzer systems (synesthesia). The increase in sensitivity as a result of the interaction of analyzers and training exercises is called "sensitization." In the latter case, we are talking about sensory education – a system of pedagogical influences aimed at the formation of sensory cognition ways and sensations and perceptions' improvement. We do not just hear, see, etc., but we pass it all through an individual prism.

Today, most models and training programs are focused on cognitive development. Therefore, for psychological and pedagogical science and practice it is an immediate need to study all the factors that can affect the formation of the human intellectual potential. Based on this, the study of the mechanisms of mental representation development in children of primary school age and adolescence, the use of such knowledge in the educational process, including learning motor skills in sports, is of particular relevance.

2. Literature Review

I. P. Pavlov explained the cortical mechanisms of voluntary movements as "a consequence of afferent irritation from our subjective presentation, a consequence of our thought." That is why movement as a functional organ possesses not only biodynamic, but also sensory tissue. The first is the external form of living movement, and the second is the internal one. These two forms of motor action are in constant interaction, the mutual transition of the biodynamic and sensory sides [1]. J. Piaget also associated simpler forms of memory with movements, the obligatory presence of sensations and mental representations in their implementation. He linked movements with foresight and search [2].

An important place in understanding the processes of awareness and mental representation of movements belongs to the researches of M. O. Bernshtein, O. V. Zaporozhets, P. K. Anokhin [3, 4, 5]. In his works M. O. Bernshtein for the first time presented the movement as a multi-level mental influence. The regulating mechanism for constructing movement is the "closed loop of interaction" [6]. M. O. Bernshtein showed that a system of reverse afferentations is needed for successful regulation of movements. The system of reverse afferentations includes a constant assessment of the trajectory of the real motion and the given one. In fact, we are talking about feedback in the regulation of movements (reflexive ring regulation).

The methods of biodynamic analysis of movements developed by him indicated the essential importance of the latter in the study of higher nervous activity and behaviour. This is, first of all, his idea of "living movement" as a living organism – a dynamic functional organ of an individual, possessing, like the anatomical and physiological organs, the qualities of evolution, involution, and reactivity [7, 8]. This also covers the role of the motor image, which was understood as the "leading directive", "model of the required future", the programs, and feedbacks in the construction and regulation of movements. These are ideas about the uniqueness and originality of movements (movements are not repeated, but are built anew each time), therefore exercises are "repetition without repetition".

Following M. O. Bernshtein, O. V. Zaporozhets called living movement as "the movement of a living body, reproducing the shape of another body, which is intrinsically connected with the search that includes orientation to the future" [5]. It was noted that the essence of their origin was at the same time the essence of the origin of sensuality, feeling, psyche. A living movement was considered by O. V. Zaporozhets in this sense as "a genetic derivative unit of mental activity analysis". It is no coincidence that M. O. Bernshtein noted that "human motility can and should become a wonderful indicator for studying the processes that take place in the central nervous system" [6]. He wrote that this motor indicator of higher nervous activity is able to reflect the fleeting processes of the brain.



Further studies of M. O. Bernshtein showed that these inexhaustible phenomenological aspects of movement can serve as indicators of not only the processes occurring in the central nervous system, but also higher mental functions. It was proved that afferent stimulation of the motor system with the help of physical exercises accelerates the development of the motor analyzer, which serves as an apparatus for integrating the results of the entire cerebral cortex, and also contributes to the development and improvement of afferent acts [4]. To the same extent that people feel the qualities of the objective world surrounding them, there is a need for a sense of one's own movements. That is, motor actions can act as conditions for the emergence and development of sensuality, feeling. The sensation, in turn, creates the necessary conditions for the further development and improvement of the movements themselves.

Regarding this, O.V. Zaporozhets emphasized that the sense of movement is not only an obligatory companion of their arbitrariness, but also a prerequisite for them. He said "before turning into arbitrarily regulated, the movement must become tangible" [5]. So, sensation, from this point of view, "is as much the basis of movement as its result". It is no coincidence that the concept of "sensory tissue" was introduced into the psychological theory of movements' construction, which was understood as the motor experience that persists after the movement is completed, and together with the biodynamic tissue of living movement is the material of the formation and construction of motor actions' images. This motor experience acquired in practical activity is crucial for the process of future motor images formation, because on its basis the construction of new movements is carried out. It should be noted that sensations, mental representations of a living movement here are understood not only in relation to the external conditions of its flow, but also to oneself, internally.

The research papers of P. K. Anokhin on the physiology of functional systems are of exceptional interest in terms of the problems we are considering. Without setting ourselves the task of completely covering this direction, we dwell only on two components of the physiological functional system: the acceptor of the results of an action and reverse afferentation. According to P. K. Anokhin, "an acceptor of the results of actions ... "provides" the afferent properties of that result, which should be obtained in accordance with the decision, and, therefore, is ahead of the course of events in the relationship between the human body and the outside world" [3]. The acceptor of the results of actions allows one to "predict the signs of the result necessary at the moment and compare them with the parameters of the real result, information about which comes to the acceptor of the actions' results due to reverse afferentation". The presence of an acceptor of the actions' results and a system of inverse afferentation in a functional system of behaviour shows theoretically the need to evaluate current and quantitative results of behaviour. These mechanisms can become the basis of reflection, awareness of activity and oneself.

Studying the role of children's motility in the regulation of their mental state, we proceeded from the fact that during voluntary movements there is a relationship between internal (mental) and external (physical) activity. Intentions arising in the child's consciousness are realized in external motor acts, which in turn contribute to the development of mental functions, motor experience. Internal and external activities have the same structure and are interconnected. The external activity is internalized and takes the form of mental activity, and the internal activity is externalized, acquiring the objective form [1]. Usually, speaking of mental representation and imagination, mental representation of memory and mental representation of imagination are distinguished. The concept of memory refers to the reproduction of previously experienced perceptions in the consciousness. The mental representation of memory is the mental representation of what was. But the reproduction of what was is not identical to what was perceived. After all, the image is always perceived subjectively, it acts as a unit of individual consciousness. It maintains its stability for a fairly short time, and even while in present, the image of the object, ensuring the adequacy of the perceiving object, is constantly in dynamics, dictated by the situation of the problem being solved and personal values. A permanent thing, but the image of this thing as a subjective image is changeable. In this case, we understand the subjective variability of the image with its objective stability (invariance) in order to understand the relationship of the image-perception and the way of presentation. To understand this relationship, we note that the image-representation, like the image-perception, is functional.

We always reproduce the image for solving any problem, guided by certain needs that are directed by certain experiences. The image-perception is a thing of the past. The image-representation is reproduced in the present to solve the problems faced by the subject "here and now". This means that the image-representation is under the control of the whole inner world of a person and acts as a part of the

consciousness of the subject. Therefore, new ideas can be introduced into the image-representation, which were not in the process of perception, but at the same time the image-representation provides the objectivity of the mental representation, as applied to the specific motor action. The image-representation is the image-perception, refracted through the inner world of a person, related to the problem and situation being solved. This is where the productivity of mental representations lies. No wonder it is mentioned in folk tales: "Morning is wiser than evening." The images of movement and ideas about movement have different content of thoughts, but at the same time they retain their objectivity. Therefore, the expression of the image in individual thoughts shows their relationship and simultaneously the difference due to time, situation and tasks that are solved by the subject.

Today there are many scientific papers on the effectiveness of using mental representation in athletes' diverse training. There are many synonyms of terms in the literature on sports psychology: motor image, mental image, motive image, imaginary training, ideomotor training, figurative repetition, visualization, kinaesthetic image, visual-motor repetition of behaviour, etc. We adhere to the definition according to which mental images include the types of quasi-sensory and quasi-perceptual experiences that exist in our minds in the absence of stimulating conditions that generate primary sensory-perceptual reflections of reality.

It is important to distinguish between athletes' imaginary training and the usual process of a person's mental representation: an imaginary training involves a thorough and focused study and repetition of a specific motor image in a series of mental representations. The usual process of mental representations differs from such a procedure in the spontaneity of its course, the absence of an analysis of the most significant details. Mental representation is a conscious process; it is conducted and controlled by our needs, interests, feelings and desires. Of course, imagination uses the material of thoughts, feelings, images and can transform them, acting together with them or free them from the power of memory. The unity of feelings and imagination is an opinion.

Studies on the mental representation of movements (MRM) in adult and young athletes are carried out both in the territory of the former Soviet Union [9-15] and abroad [16-18]. In studies performed on adult athletes, it is proved that the use of mental images can increase the efficiency of learning new motor skills and improving the technique of performing familiar exercises. Motor skills include the process of self-training in various sports, as well as the ability to predict the actions of a partner in a game in team types, for example in football [19]. In addition, in a number of works it was shown that the combination of physical activity and MRM is more conducive to the effective performance of movements than the simple muscle training, as well as the fact that MRM can increase the strength of the muscles of the lower leg, press, arms, legs, etc. [20].

There are also foreign studies that prove the importance of MRM for the training process of young athletes. For example, the research of M. Guerrero, D. Tobin, K. Munroe-Chandler, and her colleagues conducted with children aged 8 to 14 years old showed that due to mental images it is possible not only to improve the performance of sports tasks, but also to increase the collaborative effectiveness of a team [21]. The research of M. Afrouzeh and his colleagues, conducted on 36 young volleyball players (average age 13 years old), was aimed at elucidating the effect of the 7-week use of the PETTLEP-1 model on them when studying the delivery technique. The results of this study showed that those athletes who trained in a pitch, using the model of mental representation of their movements, learned that skill better than athletes who did not use mental images of movements before training [22].

The study of the imaginary processing specifics – the systematic and purposeful speculative repetition of motor elements by young athletes-skiers in order to improve the coordination of movements performed this way and increase the general level of technical readiness – also confirms the effectiveness of this approach. It is assumed that when working on movements, depending on their mastering and the features of mental representation, athletes will have higher rates of sportsmanship. It was noted that the specifics of movement pattern is related to its perspective, in particular, while representing mentally 11 elements of ski equipment, the children noted the most familiar perspective of mental representation of each of them [11].

The aim of the study is to investigate the characteristics of the sensory-perceptual information processing by children 7-12 years old (mastering motor skills in football), depending on the level of their imagination development and the use of mental motor images. The main objectives of the work were to conduct the primary adaptation of the methodology to the Ukrainian sample, the main stage of the study on the use of imaginary motor representations and analysis of the obtained data.

3. Method

To determine the most effective and often used mental images by young athletes and the ways of representing them we used the “Movement Imagery Questionnaire for Children” (MIQ-C) [18]. The MIQ-C technique is the modification of the third version of the movement mental representation questionnaire for examining children aged 7 to 12 years old. It was during this period that a child begins to develop such cognitive ability as mental manipulation of images, which is involved in the mental representation of movements [13, 15]. Due to the lack of reliable methods for assessing children's ability to visualize movements in Ukraine currently, we considered it relevant to test MIQ-C methodology on the Ukrainian sample of young athletes.

Based on the model of using mental images in sports [18], today the model is based on two functions of athletes' figurative representations: cognitive and motivational, each of which in turn is realized at two levels – general and special. The authors distinguish five different types of mental images used by athletes:

1. cognitive general images (CI);
2. cognitive special images (CS);
3. motivational special (MS);
4. motivational general activating (MO-A);
5. motivational general regulatory (MO-R).

According to this model the images used by an athlete in various sports situations should correspond to the desired result. So, if athletes want to increase the self-efficacy of a sports exercise, they need to use images of the MO-R type, and if the question arises of the intellectual component formation of the motor action, then – images like CS, etc.

At the preliminary stage, the MIQ-C methodology was translated into Ukrainian and its primary adaptation was made for 5 children under test aged 7 to 12 years old who were involved in football. As a result, some words were replaced by more understandable for the Ukrainian sample, but did not distort the contents of the task: for example, the expression “a glass of mud” was replaced by “a glass with dirty water”; a more detailed description of what “kinaesthetic performances” mean was also added. At the main stage, young athletes performed the tasks of the methodology. The technique consists of 4 exercises. Each exercise was aimed at the work of a specific muscle group.

Standing in the starting position (in four exercises the starting positions are different), the child must imagine some kind of movement without actually making it, and then assess the complexity of mental representation of this movement on a 7-point scale (from 1 – “very difficult” to 7 – “very easy”). Each movement had to be represented in three different ways: from the first person (perception of the movement from the position of “I-subject” which actualizes the result of direct interaction with specific properties of the environment, from the third person (perception of the movement from the position of “I-object”, which is the reflection in the individual's consciousness of oneself as the part of objective reality; and kinaesthetic (perception of the features of muscle work when performing movement) [14].

Before starting work with each child, a detailed discussion of instructions and clarification of terminology was held, as well as a training session, during which athletes answered questions about their ways of representing this movement using the mental representation of a hit on a soccer ball. Also at this stage there was an explanation of the rules for scaling sensations using pictures with glasses filled with various liquids, the visibility through which was accordingly different: for example, if the children present an image of hitting the ball as if they were looking through a glass with dirty water, then they should choose a value from 1 up to 3 (that is, from “very difficult” to “a little difficult”).

The study involved 35 boys from Kyiv football sports section aged 7 to 12 years old. To check the reliability-consistency of the questionnaire's questions, the Cronbach's alpha coefficient was calculated. The resulting indicator 0.852 indicated good consistency of questions. The processing of empirical data was carried out on the basis of the SPSS Statistics.

4. Results and Discussion

The results obtained in the study are shown in Table 1.



Table 1. Indicators of mental representation of movement by children

Number of children	Age	Indicators			
		Min.	Max.	Average value	Standard deviation
The first-person mental representation of movement					
11	7 - 8	3.25	7.00	6.41	0.07
12	9 - 10	3.75	7.00	6.41	0.82
12	11 - 12	4.00	7.00	6.31	0.68
The third-person mental representation of movement					
11	7 - 8	3.25	7.00	6.11	1.56
12	9 - 10	4.00	7.00	6.26	0.79
12	11 - 12	1.00	6.80	6.00	0.31
Kinaesthetic representation					
11	7 - 8	1.00	7.00	5.59	2.06
12	9 - 10	3.75	7.00	5.94	0.88
12	11 - 12	1.00	7.00	5.66	1.23

In the process of recognizing kinaesthetic images, 70% of children reported that they were not able to enter into kinaesthetic images, saying that they “could not feel anything”. Four children said that they justified their answers by how easy it was to feel the actual movement than the mental representation of the movement. Three children reported that they required a visual image when they were asked to generate the kinaesthetic image. Instructions have been changed. During this assignment we asked the children first to name the muscles that will be used to complete the task and which parts of the human body will be involved. Then they focused on the mental image of how this action will be felt without really doing it. After that they appreciated the easiness / complexity of the image, the feeling of hitting the ball.

When completing the third task, children's answers often indicated a lack of understanding of the concept of “kinaesthetic representations”, visualization, and its relation to Likert scale. To solve this, photographs of three different glasses: one filled with dirty water, the other one – with muddy water, and the third one was empty and transparent, were placed at various points on Likert scale. The glass with dirty water and the clear glass were fixed to the very easy / difficult ends of the scale, and the image with muddy water was placed in the center. The children were again sent to the idea of kicking the ball and were asked questions about how easy / difficult it was to see their skill if they had to do it through glass. Due to this question and photographs of various glasses, we have provided a more complete understanding of the use of the scale and the concept of easiness / difficulty of visualization by children.

The mental actions and operations created by a child begin to be realized from the perspective of another person who is initially real, and later conditionally present in the ideas of a particular child. That is, the child's action is built from the very beginning as reflective, since it includes the conditional position of another person. Moreover, the conditional position of another person may be present in action spontaneously or maybe realized. Conscious forms of reflection are possible only in the presence of language mediation.

Reflexivity is necessary: a) when carrying out actions or committing acts requiring arbitrary self-control; b) in actions aimed at transforming oneself (for example, self-education, development of one's knowledge, skills, abilities, etc.). Thus, the subject is aware of its external objectively substantive or internal mentally constructed position in relation to a specific action or act, object or person. These two indicated criteria of reflexivity correspond to such characteristics of actions as their awareness and self-awareness. According to the first criterion, reflection is considered as an objective expression of some knowledge through other knowledge (expression of one value in a system of other values) – organization, construction and control of one orientational basis of actions using another orientational (metaorientational) basis of actions. The subject does not include orientation on oneself in the conscious system of orientational actions. The second criterion defines reflection as such a conscious system of orientational actions, in which the subject's orientation, aimed at oneself, is necessary.

So, the sensation of movements is directly related to the person's self-knowledge, occurs on the basis of reflection, which is carried out by the same mental processes as cognition of the surrounding world. These

processes are addressed to the basic constructs of the psychological system of activity. But how is reflection realized when it is addressed to the subject of activity? How is self-knowledge realized? To begin with, we pose the question this way: how can external observers recognize us? They can do this either by observing our daily behaviour, or using special tests. But in this case, what should these tests consist of? They should represent standardized types of activities, which, according to our assumption, allow us to conclude on the basis of the tests' results about the essential qualities that they seek to learn about. Otherwise, how do we judge real personalities? Of course, we should take into account the behaviour of these individuals.

Thus, we are talking about the knowledge of certain entities that are not directly observed. They are not observed both by an external observer and by the subject oneself. Therefore, both the external observer who wants to know us (as an object of knowledge), and when we ourselves want to know ourselves (as an object of self-knowledge) we are in the same situation. And so, in order to know ourselves, we must turn to the results of our activities and behaviour. Thus, subjects for the purpose of knowing themselves include themselves in an activity in which certain qualities are likely to appear, and based on the results of this activity (behaviour), they draw conclusions about their qualities.

So, in the act of reflection there are two points:

- targeted inclusion of oneself in activity;
- analysis of the results from the standpoint of their conditioning by their essential qualities.

Targeted inclusion, in turn, involves:

- the motivation to know oneself;
- knowledge of the essential qualities that determine behaviour;
- knowledge of the types of vital activity in which the essential qualities of oneself can manifest and become clear.

Thus, we see that the determinant of self-knowledge is the motivation for self-knowledge. The whole process of self-knowledge is realized by the same mental processes as the knowledge of the external world. Developed reflection determines self-awareness, and developing a sense of movement – we develop reflectivity and vice versa.

The results obtained complement and extend the findings of many studies [23-30].

5. Conclusions

The highest MRM indices for all modalities (the first-person, the third-person and kinaesthetic representations) are observed in children of the middle group (9-10 years old). This may be due to the greater tendency of children of this age to form cognitive patterns and the beginning of their use, as well as the development of the mechanism for the interaction of sensory-perceptual and motor modularities of the central motor analyzer, that is, the development of the intellectual component of motor action. But this assumption requires further verification. Despite the fact that, in general, the idea of the human body is less developed in children than in adults, however, the age of 7 to 12 years old is just the most sensitive for a more complete understanding of the structure of the human body.

In the process of studying the relationship between athletes using mental images of movement (motivational, cognitive) and the general development of their imagination, it turned out that there is a significant relationship between the use of mental images by athletes and the level of their imagination's development. When answering the question, which images: motivational or cognitive are used by athletes with a more developed imagination, we note that this depends on the age of people under test. If according to the results of 8-year-old athletes significant correlations of indicators in one or another way reflect the use of motivational images by the athletes, and then according to the results of 11-12-year-old athletes, it turned out that

In our opinion, this fact can be explained as follows. Firstly, in 8-year-old athletes real motor skills are still insufficiently formed, which causes difficulties when trying to mentally process them (cognitive function of images). Probably the mechanism for adjusting imaginary action can be effectively applied only if the skills of real motor programs (the intellectual component of motor actions) are available, while with regard to motivational images such restrictions should not be made. Secondly, it is known that in most children at the age of 8 the formation of formal logical thinking is only beginning, that is, the level of development of imagination in athletes of this age is higher than the level of intellectual development. So, for younger

athletes there are rather more productive applications than motivational images, which are characterized by greater emotionality than the cognitive ones.

The analysis of variance also confirmed our assumption that the mental representation of muscle movements is more difficult for children than the representation from the first or third person. Despite this we can assume that as a result of the regular use of mental images of the movements performed children-athletes will begin to analyze in more detail the sensations received from their body, and the indicators of the kinaesthetic representation of their movements in them will increase. We noted the following feature: despite the rather successful completion of the MRM from the first and third persons by young athletes, they still needed an explanation of the difference between these two types of representations. It is possible to assume that the internal visual, external visual and kinaesthetic images are separate constructions in primary school children.

The study contributed to a more complete understanding of the mechanisms of MRM, including such parameters as the physical reaction of athletes to mental representation of a situation; features of the environment in which they are performing exercises; pace; remembering the mental image; related emotions and the way of image representation. Knowing the ability of children to represent mentally the movements they perform can help sports psychologists and coaches develop mental representation in young athletes, which will help improve motor skills when performing real exercises during the training process and competitions.

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Professional Psychological Potential of a Modern Police Manager as the Basis for the Formation of an Effective Managerial System

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Abstract

In modern conditions, the police face difficult tasks. The beginning of the century was marked by the fact that the world community faced the global spread and growth of dangerous social phenomena, such as terrorism, genocide, interethnic conflicts, illegal migration, drug and arms trafficking, etc. This leads to increased interest in studying the trends and dynamics of police management, searching for new, flexible, and effective approaches that will help police organizations to combat crime without a significant increase in their numbers and funding. In modern conditions, studying the psychological aspects of the professional activities of the managers of the National Police units becomes especially relevant. The aim of the research is to carry out a comprehensive study of the professional psychological potential of a modern police manager as a complex feature that determines the effectiveness of management, to determine the main components of the psychogram of the head of a police organization. The study is based on the use of the psychological diagnosis methods, due to which 950 managers of police departments were surveyed. The obtained results were processed using the methods of mathematical statistics, due to which the quantitative and qualitative characteristics of professionally important qualities necessary for mastering the profession of a police manager, as well as psychological contraindications to successful activity in this position were revealed. The obtained experimental data will help to improve the process of professional selection and persons' appointments to the positions of police organization managers and will be useful in police officers' training.

Keywords: police department manager, personality, professional psychological potential, psychological diagnostics, professionally important qualities, professional selection.

1. Introduction

The National Police of Ukraine is in the process of formation, which is accompanied by a radical reforming of the outdated legal framework for law enforcement activity. The latest trends are characterized by postmodern approaches in the modern police system, accompanied by updating the legal framework of the police activities, focusing on the service model with dominating humanistic manifestations, the shift away from purely material motives of social activity (postmaterialist tendencies), openness and transparency in the performance of official duties, accountability of the police to society, structural adjustment, demilitarization, a close partnership of workers with the population, changes in management systems and new criteria for evaluating the efficiency of the structural units of police organizations. The new tasks of the police create a number of new requirements for managers of territorial police units (hereinafter – police managers), the level of their professional psychological readiness for professional activity. Modern police managers are expected to significantly increase the efficiency of professional activities by moving away from outdated methods of personnel management, breaking stereotypes and patterns while mastering the profession, ensuring the selection of staff with a high level of professionalism, achieving high results in training, professional and personal development. police activities, establishing effective leadership, and teamwork in units. The task of improving the psychological support of the managers of the National Police is of particular importance. In view of this, the performance of important managerial functions places higher



demands on the leaders of police bodies and units, primarily on the personal qualities, skills, and abilities of police managers.

However, according to scientific research (Bondarenko, et al., 2020; Okhrimenko, 2019; Ostapovych, Dubova, & Barko, 2018; Shvets, et al., 2020), the level of practical and psychological readiness of police managers is often insufficient. Due to the shortcomings of management, there are conflicts in departments, significant staff turnover, violations of the rights and freedoms of citizens, abuse of authority by police officers, etc. The quality of individual characteristics, as well as the professional skills and abilities of police managers, do not always meet the requirements of the profession to the personality of a manager of this level.

On this basis, it is important to outline the professional psychological potential of the modern manager of the police department as a comprehensive descriptive characteristic, which qualitatively and quantitatively outlines the managerial capabilities of a police manager. The professional psychological potential is considered a descriptive variable that captures (characterizes) the strategy of managerial activity and is formed on the basis of three main components - general abilities, characterological features, and personality orientation (Barko, Irkhin, & Neshcheret, 2007). The development of professional psychological potential will improve the quality of a professional selection of police managers, determine the directions of their further service and psychological training, and increase the efficiency of management activities in general.

2. Literature Review

The analysis of domestic scientific works in legal psychology, management theory, management psychology, social psychology (Aleksandrov, Okhrimenko, & Drozd, 2017; Anastazi, Urbina, 2007; Barko, Irkhin, & Neshcheret, 2007; Bandurka, Bocharova, & Zemlianskaia, 2006; Burlachuk, 2008; Halyan, 2011; Krylov, & Manichev, 2013; Sobchik, 2003; Yeliseyev, 2006; Fedorenko, Dotsenko, Okhrimenko, Radchenko, & Gorbenko, 2020; Kazmirenko, & Moiseyev, 2007; Ostapovich et al., 2020; Shapar, Timchenko, & Shvydchenko, 2002; Shvets, et al., 2020; Tohochynskiy, Valieiev, Arsentieva, Ivchuk, Sidash, & Pekarchuk, 2020) demonstrates that the existing achievements and results do not reveal the features of personnel management in law enforcement agencies.

This is attributed to the fundamental specific characteristics of the target and job functions of police managers, special mechanisms and patterns of the interpersonal interaction of police law enforcement agencies, the specifics of the content, organization, and results of management in the police, etc. Among foreign scientists who organized their empirical research within the outlined issues, it is necessary to highlight such researchers as Bjerregaard, & Lord (2004); Bouchard, Blair, & Haskell (2007); Bufkin (2004); Cochraine, Tett, & Vandecreek (2003); Dunnette, & Borman (1979); John, Naumann, & Soto (2008); Mohammadi, & Sahebazamani (2012); Owen, Wagner (2008); Paşniciuc (2017); Zeer (2003). The scientists studied important psychological aspects of policing, related to the professional motivation of law enforcement officers, the effectiveness of actions in extreme situations, developed ethical standards of conduct for various categories of police officers, professional psychological selection of police personnel, preparation for actions in special and crisis conditions, etc.

Some authors (Barrett, Miguel, Hurd, Lueke, & Tan, 2003; Birzu, 2017); Kh'yell, & Zigler, 1997; Richi, & Martin, 2004; Soshnikov, & Pelenitsyn, 2009; Yevdokimova, & Okhrimenko, 2020) are quite right to note that the service activities of police managers put higher demands on individual psychological characteristics, as well as knowledge, skills, abilities, and other competencies of professionals. However, the psychological aspects of the activities of police managers, in particular, the requirements of the profession to the individual characteristics of police managers, the criteria for assessing their professional psychological readiness for effective management, remain largely understudied. Therefore, the study of the professional psychological potential of police managers, the development and determination of professional suitability is an urgent theoretical and applied problem.

On this basis, the **aim of the study** is to conduct comprehensive research on the professional psychological potential of a modern police manager as a comprehensive characteristic that determines the effectiveness of management, to determine the main components of the psychogram of the head of the police organization.

The object of the study is the psychological features of the managerial activity of police managers. *The*



subject of the study is the professional psychological potential of a police manager in terms of posthumanist activities implementation.

The results of the research significantly complement the existing publications, as they present qualitative and quantitative indicators of a person's psychological suitability for managerial activities as a police manager, contraindications for mastering the profession for the first time. In addition, the optimal psychodiagnostic tools for professional psychological selection of specialists and appointment of candidates for senior positions in the police were proposed.

3. Method

The experimental study, which was conducted during 8 months of 2020, involved 950 police managers (males between the ages of 27 and 40). The quantitative indicator of the sample is representative (the total number of police managers at different levels is about eight thousand people, therefore, a confidence level is 0.95; the statistical error does not exceed 5%). The testing of police managers was carried out by the blank method in groups of 10-12 people in the first part of the day. The subjects were motivated by preliminary information about the psychological examination of their professional abilities; the results were processed using answer keys to the methods, statistical data analysis was performed using Microsoft Excel and SPSS Statistics.

Research methods included theoretical analysis and generalization of scientific and methodical literature, pedagogical observation, psychological diagnostics, the survey of experts, mathematical statistics methods.

At the first stage of the study, the structure of the professional psychological potential of police managers, which is specified in the individual psychological qualities of a leader as the main components of the psychogram of this profession, was determined.

Further, with the integrated use of a number of valid and reliable psychodiagnostic techniques, the requirements for the components of the psychogram (the level and structure of testometric and emotional intelligence, creativity, the features of nervous processes, characterological features, and motivation) were established; the results were processed using the methods of mathematical statistics.

At the third stage, the list of professionally important qualities, necessary for mastering the profession of a police manager, and psychological contradictions to mastering it was determined, i.e. a psychogram of the profession of a modern police manager was developed.

To achieve the goal of the study, a number of psychodiagnostic techniques were used.

1. R. Amthauer's test was used to study the level and structure of intelligence (Yeliseyev, 2006). Subtests №2 and №3 help to establish the level of verbal intelligence, subtest №6 - the level of a non-verbal component of intelligence. The average level of intelligence is 103-109 IQ points for people of the selected age group (27-40 years old), the indicators below and above this range are considered low and high respectively. In order to study the level and structure of emotional intelligence, a questionnaire by M. Manoylova, which allows conducting the diagnosis of interpersonal and intrapersonal components of emotional intelligence, was used (Manoylova, 2007). The knowledge of the numerical values of the emotional intelligence components and the integrated indicator makes it possible to predict the degree of suitability of a police manager for professional activities. For the studied sample, the average level on the scales of interpersonal and intrapersonal components is 1.0-3.0 points, the integrated indicator ranges from 1.0 to 4.0 points; the indicators below and above the range are considered low and high respectively. The creativity was studied using the methodology of V. Mede and K. Piorkovskiy, which involves assessing the speed and originality of thinking based on the composition of sentences that include three given words (Yeliseyev, 2006). For the selected sample, the average speed level is 3-4 points, originality - 4-6 points, the indicators below and above the range are considered low and high respectively. In addition, in order to study the features of the nervous processes of police officers, a tapping test (modified by E. Ilyin), which allows conducting the diagnosis of strength and lability of the nervous system (NA), was used (Burlachuk, 2008). It is traditionally believed that police officers should have a strong or medium-strong type and high lability of the nervous system.

2. To identify the leading trends in personality, the Individual typological questionnaire (ITQ), developed with the guidance of L. Sobchik in 2003, was used (Sobchik, 2003). The leading trends form an orthogonal model that combines eight main scales that contrast in their properties: extraversion -

introversion; spontaneity - sensitivity; aggression - anxiety; rigidity - lability/emotionality. In addition, the questionnaire contains control scales of lies and aggravation. The questionnaire helps to determine the type of police response (stenic or hypostenic), the average level on the main scales is 4-7 points for the sample, the indicators below and above the range are considered low and high respectively.

3. The Big Five Inventory (BFI) was used to determine the overall personality structure applying five factors (extraversion, agreeableness, conscientiousness, neuroticism, and openness to experience) (Howard, Medina, & Howard, 1996; John, Naumann, & Soto, 2008). These factors are important indicators of a person's readiness for professional activity, the average level on the scales of neuroticism and agreeableness is 15-24 points for the selected sample, on the scales of extraversion, conscientiousness, and openness - 20-33 points, the indicators below and above the range are considered low and high respectively.

4. To study the level of tolerance of uncertainty, S. Badner's questionnaire, which helps to determine the main components of tolerance of uncertainty (novelty, complexity, unsolvability), and the general index (Budner, (1962) were used. For the studied sample, the average level on the scales is 12-37 points, the overall index is in the range of 51-70 points; the indicators below and above the specified range are considered low and high respectively.

5. To study the motivational orientation of a person, we used the test of Richi and Martin, which helps determine the twelve basic needs that a person wants to realize in the work: material reward; favorable working conditions; structuring of work; social contacts; relationship support; recognition; achieving complex goals; influence and power; diversity and change; creativity; self-improvement and development; socially useful work (Richi, & Martin, 2004). The test allows establishing the leading motives for the professional choice of police officers.

The research was performed according to the requirements of the Regulations on Academic Honesty at the National Academy of Internal Affairs, which were developed on the basis of Ukrainian and world experience of ethical rulemaking. This document was approved by the Academic Council of the National Academy of Internal Affairs (Protocol No. 5 of 27.03.2018 and implemented by the order of the Rector of the Academy (Order No. 422 of 30.03.2018. According to its provisions, the members of the scientific community are guided by the rules of ethical conduct and professional communication; respect the principles, values, norms, rules, and conditions of academic honesty in their activities. The consent to participate in the study was obtained from all subjects.

4. Results

The use of the above mentioned psychodiagnostic techniques made it possible to obtain results on the indicators of general abilities, characterological features, and motivational profile of the personality of a successful police manager.

General abilities. It is established that the profession makes certain demands on the general abilities of police managers. The analysis of the results obtained applying the *methodology "Amthauer's Test"* showed that they had an average level of verbal intelligence (the average value of verbal tests №2 and №3 was 12.24 raw scores (106 IQ points), a high value of nonverbal intelligence (the average value of nonverbal or practical intelligence was 15.6 raw scores or 114 IQ points) (Table 1).

According to the indicator of emotional intelligence, determined by *the questionnaire of M.Manoilova*, the study showed that respondents had an intermediate level of EI on the scales of the intrapersonal component of EI (№1 - the awareness of their own emotions and feelings and №2 - control of their emotions) - the average value was 1.60 points, the average value of mode was 1.50 points. The results analysis of the scales of the interpersonal component of EI showed that managers also had intermediate values of scales №3 (the awareness of emotions and feelings of others) and №4 (the management of emotions of others) - the average value was 1.86 points, the average value of mode was 1 point. The total (final) level of EI of police managers accounted for 5.34 points (Table 2).

Table 1. The testometric intelligence level of police managers

Statistical indicators	Subtest №2		Subtest №3		Subtest №6	
	Points	IQ	Points	IQ	Points	IQ
The arithmetic mean	12.0	105.0	12,48	107.0	15.6	114.0
Standard error	0.17	0.56	0.23	0.55	0.31	0.86
Median	13	110	11	102	15	115
Mode	13	110	12	104	18	125
Standard deviation	2.59	8.80	3.65	8.49	4.88	13.19

Table 2. The emotional intelligence level of police managers

Statistical indicators	Intrapersonal component		Interpersonal component		The final result
	The awareness of emotions	The management of emotions	The awareness of emotions	The management of emotions	
The arithmetic mean	2.82	-1.22	2.87	0.87	5.34
Standard error	0.12	0.11	0.12	0.11	-
Median	3	-1	3	1	-
Mode	3	0	3	-1	-
Standard deviation	3.59	3.32	3.65	3.42	-

The results do not contradict theoretical expectations, in particular, the values obtained on the scales of the intrapersonal component reflect the ability of managers to understand their own emotions and feelings, as well as emotions and feelings of people with whom they create professional interaction. These scales indicate responsibility, restraint, moderation, emotional maturity, the ability to objectively assess situations, experience. The moderate scores on the scales of the interpersonal component of EI indicate the importance of such traits for police managers that will help them to understand the emotions of others and direct them in a favorable direction. The managers with a developed interpersonal component of EI are characterized by sociability, activity, extraversion, spontaneity. These people are able to easily and quickly establish contacts, have communicative experience. The results obtained, in our opinion, reflect the professionally important qualities of the effective managers of police units. A successful leader is able to persuade, influence the interlocutors, be responsible for one's own actions and orders, give an objective assessment of the actions and deeds of others, combine business and personal contacts, attract attention and make people interested, establish their trust; quickly make contacts with new people; find the necessary tone of the conversation, the right form of communication depending on the psychological state and individual characteristics of the interlocutor. At the same time, the leader's ability to correlate actions with the actions of others and possible consequences, as well as to defend one's own position is important.

The study of creativity (creative potential) of police officers according to the method of V. Mede and K. Piorkovskiy showed that they were characterized by the medium level (the speed of divergent thinking – 2.99 points) and the medium level of originality – 5.0 points).

Individual psychological features. The analysis of the results obtained by the methodology "Tapping test", revealed that police managers are characterized by the profiles types described further. About a third of the subjects showed a medium-strong type of nervous system (30.0%), almost the same share (29.8%) showed a profile characteristic of the medium-weak type. About a quarter of the subjects surveyed (24.0%) had a strong type of nervous system, a small part (16.2%) of respondents had a weak type. The vast majority of managers had high (57.0%) and medium (29.8%) indicators of the lability of nervous processes, only 13.2% of people had low indicators of lability. Thus, managers had a strong or medium-strong type of nervous system, which is associated with the need to withstand emotional stress, to overcome feelings of fear, insecurity, uncertainty; high psychophysiological endurance, and efficiency.

Characteristic features. The analysis of the average personality profile of police managers using the Individual Typological Questionnaire (ITQ) characterized them as people with a stenic type of response, high activity and high level of aspiration, expressed emotional reactions, which, at the same time, are

sufficiently controlled. The professionals were also characterized by leading behavior, the ability to take risks with significant resistance to stress. The integrative average assessment of the personal profile attributed the profile to the linear type, located in the range from 3 to 7 points. The leading peaks in the profile were scales 1 (extraversion – 7.26 points); 2 (spontaneity – 6.22 points) and 8 (lability – 6.22 points) (Table 3).

Table 3. The managers' results of the survey by ITQ questionnaire

Statistical indicators	The ITQ scales									
	<i>L</i>	<i>A</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>8</i>
The arithmetic mean	3.44	0.26	7.26	6.22	4.7	6.12	2.09	4.72	2.94	6.22
Standard error	1.74	0.54	1.75	1.37	1.368	1.37	1.73	1.49	1.53	1.16
Median	3	0	8	6	5	6	2	5	3	6
Mode	3	0	9	7	5	7	1	5	2	7
Standard deviation	1.74	0.54	1.75	1.37	1.36	1.37	1.73	1.49	1.53	1.16

Note: the names of scales: *L* – lie; *A* – aggravation; *1* – extraversion; *2* – spontaneity; *3* – aggression; *4* – rigidity; *5* – introversion; *6* – sensitivity; *7* – anxiety; *8* – lability

A moderate increase in these scales in the profile of a police manager indicates a pronounced tendency to self-realization and counteraction to environmental influences. The personality of a manager is characterized by such stable characterological features as extraversion, spontaneity, moderate impulsiveness. Such traits are typical of individuals with a strong type of nervous system and high lability of nervous processes.

In interpersonal relationships, leaders are characterized as responsible, authoritative, leading, independent, they are typical of openness and sociability. However, personal potential has a slight increase on a scale of 4 (rigidity – 6.12 points) and 6 (sensitivity – 4.72 points), which may indicate the ability to control their own emotions and possible manifestations of impulsiveness.

The analysis of the research results also allows us to conclude that the following variations of profile types are typical of police managers:

a) scales 1 and 2 are leading in the profile - such persons are characterized by some impulsiveness, a tendency to risk and search for danger; they are brave, courageous; somewhat impulsive, choleric, with insufficient social conformity and difficulties of self-control in relationships;

b) scales 2 and 8 are leading in the profile; this means that the tendency to leadership, activity, persistence, rationality, consistency, and purposefulness is in the foreground for such managers;

c) scales 2, 4, and 6 are leading in the personal profile - such managers are characterized by a balance of stenic and egocentric characteristics; they show a high level of aspirations and motivation to achieve;

d) scales 2 and 4 are leading in the profile; such managers are characterized by a slightly inflated self-esteem, ignoring difficulties, enthusiasm, capability for long-term efforts, and increased efficiency in a competitive environment.

According to the results of the *Big Five Inventory (BFI)*, it was found that police managers had such personal qualities as conscientiousness (scale 2 was 39.94 points); openness to experience (scale 5 – 35.11 points); extroversion (scale 1 – 32.02 points); moderate compliance (34.55 points); a low level of neuroticism (average values on scale 4 – 13.76 points) (Table 4).

Table 4. The managers' results of the survey by the Big Five Inventory (BFI)

Statistical indicators	The BFI scales				
	1	2	3	4	5
The arithmetic mean	32.02	34.56	39.94	13.77	35.11
Standard error	0.11	0.12	0.13	0.12	0.15
Median	32	35	41	13	35
Mode	33	35	42	14	37
Standard deviation	3.23	3.45	3.81	3.73	4.63

Note: the names of scales: 1 – extraversion; 2 – agreeableness; 3 – conscientiousness; 4 – neuroticism; 5 – openness to experience

Based on a survey of respondents using *Badner's Tolerance of uncertainty questionnaire (TUQ)*, it was found that managers showed a fairly high overall index of the tolerance of uncertainty (66,47 points, the mode value, mostly a fixed indicator, was 68 points). The highest indicator on the scale 2 (complexity - 38,75 points), as well as intermediate indicators on scales 1 (novelty - 15,32 points) and 3 (insolubility - 12,39 points), were registered for individual scales of the questionnaire (Table 5).

Table 5. The results of the survey by Tolerance of uncertainty questionnaire (TUQ)

Statistical indicators	The TUQ scales			
	1	2	3	4
The arithmetic mean	15.32	38.75	12.39	66.47
Standard error	0.21	0.18	0.11	0.21
Median	15	41	12	66
Mode	16	42	11	68
Standard deviation	3.73	3.54	3.81	6.48

Note: the names of scales: 1 – novelty; 2 – complexity; 3 – insolubility; 4 – final value

These indicators gave the right to say that the police managers, in general, were tolerant of uncertainty, considered any uncertain situation as an opportunity to choose, develop, gain new experience, did not feel destructive anxiety in uncertain situations and were able to act productively. This was especially evident when solving complex problems. The managers had the ability to withstand problems, as well as to act in conditions where the task seemed new, and moreover, too difficult. The obtained results were consistent with the traits of leaders previously identified on the basis of the *individual typological questionnaire* (high efficiency, stress, courage, activity, extraversion, spontaneity, and determination; the ability to establish contacts, etc.).

Motivational profile. The analysis of the average motivational profile of police managers allowed us to conclude that they had the following motives: 1) the desire for high wages, to work with a sufficient amount of benefits and allowances (the average accounted for 44.76); 2) the desire for interesting and socially useful work (38.51 points); 3) the desire for self-improvement and development (34.63); 4) the desire for recognition by others (33.98); 5) the desire to clearly structure the work, the availability of feedback and information that allows evaluating the results of work (31.67); 6) the desire for varied work and (30.40); 7) setting and achieving brave and complex goals (29.03); 8) the desire for good working conditions (27.12) (Table 6).

Table 6. The motivational profile indicators of police managers

Statistical indicators	The main motives of the professional activity of police managers											
	1	2	3	4	5	6	7	8	9	10	11	12
The arithmetic mean	44.7	29.0	31.6	23.2	22.7	33.9	29.0	17.5	30.4	27.1	34.6	38.5
Standard error	1.09	0.90	0.85	0.63	0.61	0.71	0.62	0.71	0.69	0.73	0.58	0.84
Median	42	28	32	24	24	33	29	17	30	27	34	38
Mode	33	31	36	28	24	33	29	0	32	27	32	34
Standard deviation	17.5	14.4	13.6	10.1	9.81	11.3	9.97	11.3	11.1	11.6	9.38	13.5

Note: the significance of the main motives of the police managers' professional activity: 1 – material award, 2 – good working conditions, 3 – structuring of work, 4 – social contacts, 5 – maintenance of relations, 6 – recognition, 7 – the achievement of difficult purposes, 8 – Influence and power, 9 – diversity and change, 10 – creativity, 11 – self-improvement and development, 12 – socially useful work

5. Discussion

The psychodiagnostic techniques used in our study are not original. They are the adapted versions in Russian and Ukrainian, the use of which is authorized by Ukrainian scientists on the basis of a cooperation agreement between G. S. Kostiuk Institute of Psychology of the National Academy of Pedagogical Sciences of Ukraine and international public professional organization European Federation of Psychologists Associations (EFPA) (No. 27/134 dated 12.05.1997).

The results obtained in the study develop ideas about the professional psychological potential of the head of a police organization, which are found in the scientific literature. Many works (Barko, Irkhin, & Neshcheret, 2007; Valieiev, Tohochynskyi, Pekarchuk, Sobakar, & Iermakov, 2019) note that the police profession of any specialization makes higher demands on the individual psychological qualities of officers. It is also provided that each police officer must have quite a high strength and lability of nervous processes, the sensitivity of the analyzers; developed vestibular apparatus, well-formed cognitive processes.

Researchers also note that police managers have certain individual psychological qualities. First, it is stated about the high requirements for the level of intellectual qualities of a police manager (Barrett, Miguel, Hurd, Lueke, & Tan, 2003; Gough, 2000; Shvets, et al., 2020). In addition, it should be noted that the predictors of successful professional activity are characterological features, such as emotional stability, conscientiousness, openness, sociability, extraversion (based on the results of the Big Five Inventory), and the California Personality Questionnaire.

At the same time, some scholars (Cochrane, Tett, & Vandecreek, 2003; Bouchard, Blair, & Haskell, 2007; Hays, Regoli, & Hewitt, 2007; Kazmirenko, & Moiseyev, 2007; Kryvolapchuk, Kulyk, Barko, Kalynovskyi, & Kosiak, 2020) emphasize that a police manager is, first of all, a law enforcement officer who has the appropriate indicators of the nervous system, cognitive processes (has such qualities of attention as stability, concentration, switching, distribution, and volume; developed operational and long-term memory, good performance of visual, auditory, motor, verbal logical and figurative memory, is able to easily remember the verbal logical material, color, shape, size, movement, and location of objects, the features of human appearance; is able to clearly reproduce information).

The data obtained with the help of psychodiagnostic questionnaires indicate the importance of such qualities as conscientiousness in work, desire for new knowledge and skills, sociability, desire for leadership, energy, activity, optimism, tolerance of uncertainty for police managers. At the same time, they are typical of controlled behavior and activities, persistence, diligence, organization, discipline, sociability. To a large extent, managers are characterized by receptivity to everything new, broad interests, flexible mind, independence of thinking, focus on finding new ways to solve problems, originality of perception. Also, successful leaders should be typical of friendliness, altruism, a tendency to subordinate personal interests to the needs of the group, a focus on cooperation; rationalism, stress resistance, endurance, calm attitude to events. Police managers also have such traits as courage, independence, reasonable risk, dominance, moderate aggression, initiative, perseverance, and so on.

6. Conclusions

According to the results of the research, mastering the profession of a police manager largely depends on the degree of the main professionally important qualities formation, which is determined by the following indicators (listed in order of importance):

- 1) high or medium level of general abilities (verbal, non-verbal, and emotional intelligence, creativity);
- 2) strong or medium-strong type of nervous system;
- 3) the formation of characterological traits (courage, extroversion, conscientiousness, openness to experience, confidence, optimism, persistence, self-control, tolerance of uncertainty); a sufficient level of communication skills;
- 4) an adequate structure of motivational orientation;
- 5) the formation of emotional and volitional qualities (the ability to overcome difficulties, take responsibility, emotional stability in stressful situations); sufficient sensitivity of analyzers; a sufficient development level of cognitive processes.

The qualitative and quantitative psychological and psychophysiological indicators recommended for the effective activity of a police manager are presented as follows:

- high or medium level of verbal intelligence, i.e. not less than 10 points (100 IQ points) on verbal subtests of the Amthauer's test; high or medium level of non-verbal intelligence according to the Amthauer's test, i. e. not less than 11 points (103 IQ points);
- high or medium level of emotional intelligence (total EI indicator – not less than 4.0 points; the average indicators of intrapersonal and interpersonal components – not less than 1,5 points);
- high or medium level of creativity (the indicator of the number of sentences according to the test of Mede and Piorkowskyi – not less than 3; the indicator of originality – not less than 5 points);
- characterological profile of the stenic type: according to the ITQ test, the indicators of scales 1, 2, 4, 8 – in the range of 4-8 points; and scales 3, 5, 6, 7 – no more than 7 points; according to the BFI, the value of neuroticism is not higher than 20 points; agreeableness – not more than 40; conscientiousness – not less than 35, openness – not less than 34; according to the TUQ, the general tolerance indicator is not less than 51 points; novelty – not less than 9; complexity – not less than 21; unsolvability – not less than 9;
- the adequate motivational orientation of the individual (the desire for interesting and socially useful work (36-40 points), the desire for self-improvement and development (34-37 points), the desire for recognition by others (32-34 points)), the desire to clearly structure the work, the availability of feedback and information that allows evaluating the results of work (31-33 points), the desire for varied work and avoidance of routine (30-32 points), the desire to set and achieve courageous and complex goals (28 or more points).

Regarding psychological and psychophysiological contraindications to the professional activity of a police manager (the criteria of professional ineptitude), they can be presented as follows:

- low level of any of the components of intellectual potential (verbal, non-verbal intelligence – less than 100 IQ points); emotional potential – with an overall score less than 4.0 points; average scales of intrapersonal and interpersonal components – less than 1.5 points; creativity – less than 3 points;
- negative characterological features: the increased indices of the scales of the hypostenic type of response in the personal profile of ITQ: 7 (anxiety), 6 (sensitivity), 5 (introversion) – more than 7 points, inflated indicators of the scales of the stenic type of response: 2 (spontaneity), 3 (aggressiveness), 4 (rigidity) – more than 8 points; according to the BFI, the value of neuroticism is higher than 20 points; agreeableness – above 40; conscientiousness – less than 35, openness – less than 34; according to the TUQ, the general indicator of tolerance is less than 51 points; novelty – less than 9; complexity – less than 21; insolubility – less than 9;
- an inadequate motivational orientation of the individual (dominating motives of individualistic orientation – the desire for power, good working conditions; recognition, relationships with others, etc.; negative emotional and volitional qualities (conflict, fear of difficulties, inability to take responsibility, emotional instability in stressful situations, etc.).

Thus, we provided a qualitative and quantitative description of the professional psychological potential of a modern police manager as a complex variable, which fixes the managerial capabilities of the head of a police organization. Professional psychological potential determines the managerial competence strategy and is based on three basic components – general abilities, characterological features, and

personality orientation. The psychological diagnosis of the professional psychological potential of the candidates for leadership positions in the police is a necessary element in the system of selection and appointment of the most suitable and trained professionals for the positions of police managers.

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