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PERSON'S COGNITIVE FLEXIBILITY IN DIFFERENT TYPES OF SELF-RELATION

PhD Dissertation Summary
for the purpose of obtaining academic degree
Doctor of Philosophy in Psychology

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Moscow – 2021

OVERALL SCOPE OF THE RESEARCH

The relevance of the research topic. Nowadays, academic communities have become more and more interested in the multidimensional nature and variability of processes that characterize the dynamics of personality development. At the same time, events tend to change at a high pace, which makes previously gained experience less significant. A necessity in ongoing learning increases, as well as the implementation of new technology globally and on individual-level alike. The success criteria lose its stability and focus moves to more relevant conditions now. At the same time, the range of potentially demanded areas of personal development increases, with borders of those areas being not clearly defined and characterized by their interdisciplinary nature (Atlas of new professions, 2019). This dictates the necessity of developing an ability to simultaneously take into consideration more and more factors, to determine alternative scenarios, while controlling the ongoing situation.

The external environment determines the requirements for the success of a modern person, manifested in the structure of their abilities. Along with a vast field of opportunities offered by society, arises the need for accountability for one's choices and decisions. Simultaneously, the number of people working in expertise as specified in the Degree Certificate increases (*58% in 2019*, according to the Federal State Statistics Service), as well as the number of people learning a new trade. This is evidenced by the tendency for reflexivity, integrity, and responsibility in modern society, which is closely related to self-relation, self-acceptance, and adjusting to a changing reality (Rodygina, 2007). Accordingly, this study aims at finding the correlations between relationship to self as a part of a continuous process and personal resources represented by cognitive flexibility.

The attention of this paper is focused on two phenomena. The first is "self-relation", which is viewed as a process. The second is "cognitive flexibility", which is viewed as an ability in the structure of a person's mental abilities. Those structures are

studied by domestic and foreign researchers, relevant results are provided and prospects of developing those areas are specified.

The theoretical basis for the research of self-relation as a process is the subjective paradigm. It allows us to view self-relation as an integral process, and the goal is to clarify its subtleties, specifics, and essence. This is not a traditional view of self-relation; however, it allows us to descend into the process as well as the resources updated by this process.

The general psychological approach is the most developed approach. It suggests viewing self-relation as an affective element of consciousness; as a personal trait; as a component of self-regulation (Kolyshko, 2004). Recently, there has been a growing interest in the dynamic nature of a person's functioning. In this study, *self-relation is a processual personal formation, which becomes and develops in the movement from the existing to the desired method of persons' organization.* This view is based on psychodynamic and humanistic approaches. In the first case, research in self-relation is linked to the "self" construct (or "ego"), and unfolds through interactions between them (Edinger, 2018), in the second approach it is viewed as a power dynamic within the mind (Maslow, 2019). Within Russian psychological communities, important to highlight Myasishchev's (2003) "concept of relations", in which relationships exist as links between a person and the outside world. Kurginyan's research (2013) is one of the most demanded in this sphere. It is aimed at interpreting the relations that are implemented by transformations of the intrapsychic process determined by personality. Despite the increased interest in self-relation, its procedural side, in particular the characteristics of the process, has not been studied enough yet.

The problem in the research in cognitive flexibility is the lack of a unified term. To explain the phenomenon a wide spectrum of terms is used, such as "set-shifting", "flexibility", "cognitive flexibility". However, the term itself isn't viewed as a part of a persons' actions, which requires additional analysis for finding the correlations and restrictions between those two concepts.

When looking at the nature of cognitive flexibility, researchers refer to the different subfields of psychology: cognitive neuroscience (Canas et al., 2003, 2005; Lezak et al., 2004; Barbey et al., 2013, Yehene, 2012; Stuss, Alexander, 2000) that studies the link of cognitive flexibility with high psychic activities and how they act within a brain; educational psychology, in which the theory of cognitive flexibility was developed (Spiro, Jehng, 1990); a special interest in this area is shown in the area of studying intellectual abilities, creativity and characteristics of creating the cognitive sphere of personality (Guilford, 1967; Runco, 2004; Baghetto, Kaufman, 2007; Hennessey, Amabile, 2010), where cognitive flexibility is being an important part of creativity, as well as being an essential part of cognitive psychology. While looking at the cognitive processes, cognitive flexibility is determined by «set-shifting» (Cragg, Chevalier, 2006; Colzato et al., 2009). In Russian Psychological researches, this construct was studied by G.V. Zalevsky, M.A. Holodnaja, V.A. Petrovsky, as well as in theses by H. Gavi, O. Makarenko, V.M. Bizova, and E.I. Persikova. Presented approaches and views point at diversity and lack of a systematic approach to the concept of flexibility. Thus, the main contradiction in the study of cognitive flexibility is the understanding of its nature. It can act as a person's ability and as a feature of cognitive processes at the same time. In this study, cognitive flexibility is considered a mental ability that defines the specifics of a persons' self-relation.

According to modern research and methodological tools, the structure of cognitive flexibility is shown in two aspects. The first one （the «Alternatives»）relates to an ability to present different solutions to a problem, imagine several different ways of its progression, and compare its possible results. The second aspect, "Control" relates to a person's ability to control the situation, to see things from a dominant perspective.

To summarize the modern view on this ability, it is important to note that cognitive flexibility can show itself in several levels of a person's ability (according to V.D Shadrikov's theory): as a feature of the cognitive process (subjective level) or a

person's ability (personal level). Therefore, in this research, we suggest the following definition: *cognitive flexibility is a mental ability to transform cognitions in response to changing conditions, and at the same time manifests as a characteristic of cognitive processes within the subjective level and as a person's ability.*

The analysis of modern researches may lead to the conclusion that flexibility is one of the personal resources (Ionescu, 2014, Koroleva, 2014). Furthermore, resources and abilities have the same phenomenological field (Kolyshko, 2004), where the resources act as a person's potential, and the abilities act as an actualized resource (Khazova, 2013). The problem of the actual and the potential is most productively viewed through the prism of subjective paradigm and the views of L.I. Antsiferova, N.E. Hryshyna, S.N. Kostromina. Subjectivity as a subjects' active beginning determines the person's attitude to the world and self, wherein the ability to resolve conflicts acts as the main criteria of developing subjectivity (Abulkhanova-Slavskaya, Berezina, 2001). The assumption is that procedural self-relation is achieved with the potential, which is shown in the person's resources; and with the actual, which is shown in the person's abilities. Therefore, cognitive flexibility (e.g. "willingness for change" [Saphorov, Leontiev] "personal flexibility" [Petrovsky], "flexibility" [Zalevsky]) that we view as a mental ability that characterizes a person's ability to transform cognitive attitude as an answer to changing living environment can act as a resource of the self-relation process.

Moreover, cognitive flexibility can be viewed in a structure of the metacognitive experience, because it contains the tendency to perceive complex situations as controlled, an ability to perceive several alternative explanations of live events and people's actions, an, ability to generate several alternative solutions in difficult situations (Dennis, Vander Wal, 2010), as well as the awareness of the alternatives in conversation, the readiness to adapt depending on the situation and confidence in self flexibility (Martin, Rubin, 1995). This ability helps to adapt to new conditions and create new ideas, to change the usual thought processes, and find new solutions (Canas

et al., 2005; Lezak, 2004). Thus, it acts as an integral part of creativity (Baghetto, Kaufman, 2007; Hennessey, Amabile, 2010).

Based on Shadrikov's theory of human abilities, cognitive flexibility can be viewed as an ability in three aspects: in individual aspect (as a process of a revitalization of the brain structures), in active subject aspect (as a property of cognitive processes) and in personal aspect (as a mental ability). On the level of the subject and on the personal level cognitive flexibility can be researched in a process of self-relation, because after changing the focus, the subject can not only interact with the world, but also change one's mental organization, opening for oneself new sides of it.

Research problem

There are currently several pieces of research in psychology in which self-relation is described in terms of assessment characteristics (from "positive" to "negative"), which allows us to view self-relation only as a result. However, the reasons for a person's current self-relation were not addressed yet. At the same time, some modern researches are particularly dedicated to the study of the dynamic side of this phenomenon. The nature of self-relation as a process unfolds within some psychological approaches: psychodynamic, humanist, resourceful, etc. Processuality in self-relation means a person's activity addressed to "Self", analysis, and transformation of its aspects. Self-relation can change in the process of reflection, which leads to a change in a person's view on self (Franken, 1994; Huitt, 2011). And thus, structural components of self-relation can transform, however, this sphere wasn't researched yet. It is important to consider the resources and abilities used in this process. In this research cognitive flexibility, which allows a person to view oneself from different angles, transform oneself's cognitive settings in accordance with changing life conditions is addressed, and it can determine the specifics of self-relation. There is no consensus in psychology on understanding and determining cognitive flexibility, the most common two views on this problem is understanding cognitive flexibility as a property of the cognitive process and as a person's ability. As a whole, understanding

cognitive flexibility shows the ability to adapt the way of interaction with different thoughts and mindsets, even towards self. Thus, the problem of the research is the definition of cognitive flexibility (as a property of cognitive processes and as a person's mental ability) towards self.

Research purpose: a study of a person's cognitive flexibility with different types of self-relations.

The object: a person's cognitive flexibility.

The subject: cognitive flexibility of people with different types of self-relations.

The main research hypothesis is based on an assumption that cognitive flexibility as a person's mental ability causes qualitative differences in its self-relation. In doing so, the contribution of cognitive flexibility to the type of self-relation is caused by a person's characteristics.

Frequent hypotheses are the assumptions, that:

1. Cognitive flexibility in self-relation is linked to procedural characteristics of this process, acting as a process's property, and has a person's characteristics that are inherent in specific individuals, as well as acting as a personal characteristic.

2. Personal resources, actualized in a process of an individual addressing self, will act as procedural characteristics of their relation. Their individual measure of expression and interactions between them are the basis for typology of self-relation.

3. Qualitative differences in self-relation types are caused by the level of severity of cognitive flexibility.

In accordance with the purpose and hypothesis the following **tasks** were set:

Theoretical:

1. Address theoretical and methodological premises of the research of self-relation as procedural personal development.

2. Analyze cognitive flexibility in a structure of mental abilities of respondents.

3. Determine the criteria for the typology of a person's self-relation.

Methodological:

1. Adapt the Cognitive Flexibility Inventory ([CFI] Dennis, Wander Val, 2010).
2. Develop the procedure of the qualitative-quantitative analysis of indicators of self-relation.

> Empirical:

1. Identify the groups of respondents with different types of self-relations.
2. Determine the contribution of cognitive flexibility in a person's self-relation.

The methodological and theoretical basis in this research is the subject paradigm (K.A. Abulkhanova, L.I. Antsiferova, N.E. Hryshyna, S.N. Kostromina); the status of resource approach (S.A. Khazova, H.E. Vodopyanova, V.N Druzhinin, D.V. Ushakov, M.A. Holodnaja), procedural approach (Sayko, 2019; Hryshyna 2019; Tolotsjek 2017); V.M Myasishchev's concept of psychology of relations, V.D. Shadrikov's theory of abilities, D.A. Leontiev's concept of personal potential, M.A Holodnaja's theory of cognitive styles, S.A. Khazova's view on mental resources, object relations theory (Z. Freud, H.S. Sullivan).

Methods of the research:

The main strategy of the research is based on the complementarity of quantitative and qualitative methods used to measure the variables (Table 1).

Cognitive Flexibility Inventory ([CFI] Dennis, Vander, 2010; Kurginyan, Osavoliuk, 2018) was created for measuring the aspects of cognitive flexibility that is shown as the perception of challenging situations from the position of control; an ability to perceive several alternative explanations for life events and people's behavior; an ability to find several alternative solutions in difficult situations. The methodology consists of 20 clauses and two subscales: the "Alternatives" subscale evaluates the ability of a person to give different explanations of the current situation and create new solutions; the "Control" subscale evaluates the ability of a person to view a challenging situation as something they can control. The research has shown the methodology's reliability, internal coherence, and high reliability for retests.

Table 1 - Variables of the research

Methodology/variables	Cognitive flexibility	Self-relation as a process	Personal characteristics
Cognitive Flexibility Inventory	Alternatives		
	Control		
	Overall number		
Relief of mental state	Variation of mental processes		
	Variation of physical reactions		
	Variation of experiences		
	Variation of behavior		
Method of researching individual cases of self-relation		11 topics obtained by the research 3 factors, profiles	
Multilevel Personality Inventory "Adaptability"			The personal adaptive potential and its components:
			Neuropsychic resistance
			Communication ability
			Moral normativeness
			First level variables

Multilevel Personality Inventory "Adaptability" (Maklakov, 2001) is created for

the research of a person's adaptive abilities based on psycho-physiological and psycho-

social parameters, that show integral features of mental and social development. The indicator of personal adaptive potential can be determined by the set of indicators of behavioral regulation, communication skills and moral normativeness.

The inventory "Relief of persons' mental state"(Prokhorov, 1998) aims at studying the main sides of a mental state: mental processes, physical reactions, experiences and behavior. It is a list of mental state's characteristics and contains 40 main characteristics of mental state. For the purposes of this study, flexibility can be recorded by the change of mental state, which can be tracked on a correlation of before and after the interview.

Method of analyzing individual cases of person's self-relation (Kurginyan, 2012) was chosen for determining procedural characteristics of self-relation as a process.

The empirical data (both qualitative and quantitative) was processed by using the following programs: IBM SPSS Statistics, MS Excel, R Programming (including packages Mclust and tidyLPA), Adobe Acrobat Pro DC 2019. Methods of descriptive statistics, criteria for evaluation of inner-group and intra-group differences, concordance coefficient, correlational, regress, factorial, and latent profile analysis were used.

The empirical base of the research: in total, *585* respondents participated in the survey: *480* people participated in the quantitative study and *105* in the qualitative. Most of the respondents are students at Moscow universities studying for an academic bachelor's degree in Humanities and Social studies. During the adaptation of the Cognitive Flexibility Inventory (Dennis, Vander Wal, 2010) the survey included *480* people: *445* students (*357* female and *88* male) and *35* clinically selected participants. During the qualitative stage, the total number of respondents was *105* (*24* male and *81* female).

Stages of organizing the research:

The first stage (2015-2016) included an examination of the current state of the problem, the categorical apparatus of the problem, identification of the research structure, and formulation of the research stages. This stage also addressed the methodological issues in adapting The Cognitive Flexibility Inventory (Dennis, Vander Wal, 2010), which is necessary for the realization of further research plans. The results of its adaptation are presented in the publications (Kurginyan, Osavolyuk, 2018).

In the second stage (2016-2018) a qualitative study was conducted to develop a procedure for an analysis of indicators of self-relation, additionally, an empirical base was formed in accordance with said methodological tools.

The third stage (2019-2020) presented solving empirical problems related to the construction of a typology of self-relation, as well as detecting the nature of the studied phenomena.

Reliability of the research results were ensured by the methodology; systematization of theoretical and empirical approaches; developed research strategy based on systematization results; applying valid and reliable methodological apparatus coherent with research purposes and objectives; sample representatively; applying modern methods of statistical data processing.

The scientific novelty of the research: the concept of "cognitive flexibility" as a mental ability is introduced for Russian psychology in relation to foreign methodological approaches and conceptual comprehension of construct definitions. The place of cognitive flexibility in the structure of mental abilities is shown, as well as its contribution to the process of self-relation. New diagnostic tool for Russian psychology Cognitive Flexibility Inventory is tested, for detecting its extent. Adapted Russian version is sufficiently valid and reliable for studying cognitive flexibility. The procedure of the qualitative-quantitative analysis of indicators of self-relation was

developed. Typology of self-relation was suggested in four types: "latent", "situational", "indirect" and "conformal".

The theoretical significance: a contribution in understanding the functioning of self-relation with resource approach has been made; the position of cognitive flexibility in the structure of mental abilities in is defined, pointing to further directions in studying this ability; specifics of types of self-relation are shown; the link between aspects of cognitive flexibility and persistent personal and procedural characteristics are established and analyzed; the fact that cognitive flexibility can be viewed in different levels of abilities is shown.

The practical significance: the results of the theoretical and empirical research can be further used when studying cognitive flexibility as a mental ability. The results can serve as the basis for the methodology of diagnosing mental resources. CFI (Kurginyan, Osavoliuk, 2018) is a valuable tool for psychologists and can be used as a diagnostic tool when working with clients. The developed procedure for identification of procedural characteristics can be used by researchers for finding them and detecting their extent. Presented typology of self-relation can be used for psychodiagnostics purposes. Research results can be used in training courses for general psychology, personality psychology, and qualitative research methods.

Statements to be defended:

1. Self-relation is a personality formation characterized by susceptibility to the situation, the mediation of ideas about oneself, the ability to organize the experience of dealing with oneself.

2. The combination of these procedural characteristics and their extent establishes four types of self-relation: latent, situational, indirect, and conformal. The latent type is characterized by the insignificance of all its characteristics. The conformal type is characterized by prevalence of susceptibility to the situation amidst the expression of all characteristics. Indirect type is characterized by the predominance of indirect self-relation while having low expression of other characteristics.

Situational type is characterized by the highest expression of the ability in organizing the experience in dealing with oneself.

3. Cognitive flexibility is an actualized resource that shows as a property of cognitive processes on subject level and as a person's mental ability. Cognitive flexibility correlates with personality characteristics: individuals with high levels of cognitive flexibility are less prone to depression and anxiety. Cognitive flexibility is correlated with characteristics of self-relation as a process: individuals with high levels of cognitive flexibility are less susceptible to circumstances.

4. There is a connection between cognitive flexibility and self-relation. The more flexible respondents who view the situation as a controlled one, are less likely to project the changes of the situation into the process of self-relation.

Also, a link between the change of mental processes and self-relation that is different for each type exists was found. The link is less noticeable in respondents of the latent type. The link is most noticeable in respondents of the conformal type: more stable respondents are more likely to refer to past experiences of interpersonal relationships; respondents prone to a change in mental state are more likely to refer to the ability of organizing the experience in dealing with oneself and show signs of willingness to change.

Approbation of the research results: main results of the study were discussed in the meeting of the Laboratory of Ability Psychology of National Research University Higher School of Economics Faculty of Humanities (2015-2017) and in the following conferences: 1. Young people for metropolitan education. XV City scientifically-practical conference with international participation (April 21st, 2016, Moscow); 2. International youth forum "Lomonosov-2017" (April 10-14, 2017, Moscow) 3. Jubilee All-Russian Scientific Conference "Basic and applied research of modern psychology: results and development prospects" devoted to the 45th anniversary of Psychology Institute RAS and the 90th anniversary of the birth of its creator and the first principal B.F. Lomov (16-17 of November 2017 г., Moscow). 4.

III International scientific conference "Psychology of human conditions: actual theoretical and applied problems" (8-10 of November 2018, Kazan).

Thesis research was performed under the scientific research project, supported by Russian Foundation for Basic Research (project no.17-06-00917).

The structure of the thesis corresponds to the general logic of the research and consists of an introduction, two chapters, a conclusion, a list of references (305 total entries, of 119 of which are in a foreign language) and six appendices. The thesis text includes 23 tables (5 of which are in the appendices) and 7 figures. The main text is 155 pages long. The total volume of the thesis is 221 pages.

THE MAIN CONTENT OF THE RESEARCH

The introduction establishes relevance, the problem, the topic, and the object of the research, determines purposes, hypothesis, objectives, methods of the study, shows scientific novelty, theoretical and practical importance of the study, formulates the main findings, gives approbation data of research results, provides a characteristic of the study structure.

The first chapter of the thesis is dedicated to the theoretical analysis of Russian and foreign research of self-relation and cognitive flexibility.

In **paragraph 1.1.** the subject paradigm is viewed as a theoretical base for the research of personality and self-relation. Main approaches to the research of self-relation are analyzed: self-relation as an affective part of self-comprehension; as a part of personality; as a part of self-regulation. Person's self-relation can be viewed as a result of this relation ranging from negative to positive and as a process as well. Modern views on personality psychology tend to shift the focus from personality's structure to studying its dynamic side. The subjective paradigm shows the principle of activity through a permanent process of reorganizing its essence, which shows a person's characteristics as a subject. Despite many preconditions of viewing self-relation as a procedural phenomenon, most refers to its structure and contents, mindfulness, and importance in life, while the perspective of the formation process of this attitude and the conditions of its establishment are staying out of the focus. Approaches to the research of self-relation through its procedural side show a hidden contradiction. Since in fact the process itself is a "continuous change of events or states of development of something" (Evgenyeva, 1999), which contradicts its assessment characteristic. Procedure ensures continuity and wholeness of object's existence, ability and readiness to transform and change, while the process characterises the dynamic, continuity of unveiling of events and phenomena (Hryshyna, 2019). Hence, the dynamic of self-relation can be described with its characteristics recorded during this process.

Self-relation is directly connected to the object of this relation and to the search of its objective base. The "relation" category is viewed as a special form of inner mental activity that is peculiar only for a human and creates "self" and subjectivity of a personality, since it plays the core role and creates the purpose of an activity (Saiko, 2019). Through a person's view of "self" in the process of becoming a subject, the experience of inner sense of "self" takes place. The interpretation of self as a part of an interpersonal process is mostly expressed in psychodynamic and humanistic approaches. The humanistic approach focuses on studying the nature of the phenomena, while the psychodynamic approach focuses on finding the base and determinant of the course of the process.

Consistency of psychoanalytic and humanistic approaches is also emphasized in the theoretical basis of studying personal dynamics presented in homeostatic and actualized variants. In so doing, the process of a person becoming the subject and the development of self are related to the changes initiated by the subject itself.

The difficulty in studying self-relation is related to the position of viewing "self" as a hypothetical concept. The most productive research of the self-concept is the phenomenological approach, that operates with the expectations and experiences of the person that can show in self-descriptions of personal constructs, emotions, feelings, current subjective experiences, and inner conditions, as well with the fixation of the person's mental state (Prokhorov, 1998).

Consequently, it raises the question about the basis for conversion of self and reorganizing self-relation.

In **subparagraph 1.1.2.** the phenomenal field of potential in personality is shown. It is presented by "the reserve", "the resource" and "the potential" categories. Their connection and nuances of classification towards levels of personality organization are shown (Khazova, 2014; Shadrikov, 2019). Unraveling during the self-relation process, a potential field can be described with the characteristics of this process, which can form the basis of building the typology of self-relation. This allows

us to view the unity of the procedural that is shown in self-relation and the potential that consists of the resource area of personality.

In **paragraph 1.2.** cognitive flexibility is analyzed through the point of a person's ability and a characteristic of the cognitive process. It is shown that cognitive flexibility can act as one of the bases of the process of building self-relation, *in doing so cognitive flexibility can show itself as a property of cognitive processes in the subjective aspect in as a person's ability.*

It is shown that cognitive flexibility can be viewed in a structure of a metacognitive experience given the factors of its determination: tendency to view difficult situations as controlled ones; the ability to see several alternative explanations for life experiences and people's behavior and an ability to find several alternative solutions in difficult situations (Dennis, Vander Wal, 2010). Thus, cognitive flexibility can be expressed in an individual's mental experience, through metacognitive awareness and shown on a behavioral level.

There is ambiguity in the interpretation of the phenomenon and the formulation of definitions that are related to the field of interest of the researcher, which is the most obvious problem when analyzing the concept of "flexibility". The cognitive and personal aspects of studying cognitive flexibility are explained, with which it is possible to capture its behavioral manifestations. The cognitive level involves the interaction between various cognitive processes and functions, and the personal level takes the conditions for the development of a particular individual into account.

The approaches to the study of cognitive flexibility are analyzed based on branches of psychology. The lack of a systemic view and operational definition hinders the research on cognitive flexibility. A research based on the theory of capacities by V.D. Shadrikov (2010) showed that cognitive flexibility can be considered as a specific ability of a person's cognitive system, as well as characteristics of various cognitive processes (Osavolyuk, Kurginyan, 2018), which allows to settle some disputes. When viewing cognitive flexibility as an individual's ability, the most acceptable

interpretation is the interpretation of the ability through neuropsychological research, where cognitive flexibility is studied in conjunction with the brain's higher mental functions, it is viewed as a process of activating certain brain structures within the framework of performance. When referring to the active subject levels, where abilities are viewed through the prism of intellectualization of the main psychical functions (Shadrikov, 2010), it is advisable to focus on the studies of cognitive flexibility in education, such as the ability to restructure knowledge, or as characteristic of cognitive processes. On the personal level, the subject's abilities are set under moral control, and in this case, the manifestation of the ability is related to the process of experiencing. The lack of a strict formulation of this type of abilities suggests that cognitive flexibility manifests itself as a mental ability of a person since it actively affects the process of interaction with the surrounding reality and contributes to the progress of the subject in transforming its mental organization to one that is optimally comfortable for current conditions.

The paragraph also addresses concepts that are similar in meaning and content in Russian as well as in western approaches. The problem of transliteration and translation of the researched construct is addressed. The results of studies of the construct in the light of the rigid-flexible continuum are shown as well as the nuances associated with the limitations of this direction in the study of flexibility.

The lack of terminological unification in conjunction with the insufficiency of approaches in cognitive flexibility studies leads to methodological difficulties that are shown in two circumstances: the association to the rigid-flexible continuum, which limits researchers in the study of the content of this phenomenon and the forms of its manifestation in person's behavior, and the fact that the concept of cognitive flexibility is being operated by mainly foreign researchers.

Thus, the theoretical review results in the following conclusions:

1. The general theoretical and methodological basis for the study of the personality's self-relation and cognitive flexibility is the subject's paradigm. This

allows us to study the phenomenon of "self-relation" as a process carried out by the subject during transition from an existing to the desired way of treating oneself, and the phenomenon of "cognitive flexibility" as an actualized resource through which this relation is carried out. At the same time, it is possible to see the connection between the potential and the procedural, where cognitive flexibility acts as the potential, and the self-relation acts as procedural.

2. Cognitive flexibility as ability can show itself in the subjective aspect, as a property of cognitive processes and as the ability of a person. Both aspects can be explored in the process of self-relation.

3. Viewing the self-relation as a process made it possible to find its resources that are dynamically shown in the process of the subject's transition from the existing to the desired way of organization.

The second chapter is devoted to the description of the methods, planning, organization, and progress of empirical studies. The chapter shows the result of the study, its analysis and the discussion.

Paragraph 2.1. describes the goals and hypotheses of the study, which are associated with the study of cognitive flexibility in a person's self-relation.

Paragraph 2.2. shows a detailed description of the research methodology, which is complex in nature since the studied phenomena are viewed both qualitatively and quantitatively.

Subparagraph 2.2.1. describes the sample of the study, which is represented by a total of 585 respondents (table 2).

Subparagraph 2.2.2. describes research methods and methodology represented by a set of quantitative and qualitative methods.

Subparagraph 2.2.3. describes the data processing strategy, which is built according to the principle of complementarity of qualitative and quantitative data methods. Qualitative data is processed using interview transcription procedures

(Mergenthaler et al. 1996), thematic analysis, and peer review. The reasons for the choice of research methods are given according to the research objectives.

Table 2- Study sample

Sample		Female	Male	Age			
				Min	Max	M	SD
Total	585	470	115				
quantitative study N=480							
students	445	357	88	16	21	18.59	1.19
Clinic	35	32	3	21	82	49.66	17.68
qualitative N=105							
general	105	81	24	17	53	26.63	9.82
sample of 2018	47	39	8	17	23	18.51	1.04
sample of 2014	58	42	16	22	53	33.28	8.67

Paragraph 2.3. shows consistent procedures based on a data processing strategy according to the principle of complementarity of qualitative and quantitative data methods.

The first stage (2015-2016) included an examination of the current state of the problem, the categorical apparatus of the problem, identification of the research structure and formulation of the research stages. This stage also addressed the methodological issues in adapting «Cognitive Flexibility Inventory» (Dennis, Vander Wal, 2010), which is necessary for the realization of further research plans. The results of its adaptation are presented in the publications (Kurginyan, Osavolyuk, 2018).

In the second stage (2016-2018) a qualitative study was conducted to develop a procedure for analysis of indicators of self-relation, additionally, an empirical base was formed in accordance with said methodological tools. Qualitative data was collected by means of in-depth interviews based on the method of studying individual cases of personal relations (Kurginyan, 2013). Coding and thematic analysis were implemented, which resulted in highlighting the characteristics of self-relation as a

process. At the end of this phase, a peer review of the resulting code was conducted, and Kendall's coefficient of concordance was calculated.

The third stage (2019-2020) was represented by solving empirical problems related to the construction of a typology of self-relation, as well as detecting the nature of the studied phenomena. It included: factorization of the selected indicators of a person's self-relation to determine the grounds for its typology; latent profile analysis for solving the problem according to the classification of respondents); correlation analysis, regression analysis, analysis of variance; parametric and nonparametric analysis of comparison of samples.

The factorization involved the analysis of possible base models for the typology and the identification of the best one.

The latent analysis procedure included a statement of the problem, where a relation between the emphasis on each found point and one self-relation type was suggested. The specification of the model included assumptions about the number of investigated profiles, considering the recommendations to investigate one more profile than expected (Ram, Grimm, 2009); as well as the rule about the preference of more concise models (Berlin et al., 2014). In the studied model, decisions for models with 1 to 9 profiles were compared. The comparison was conducted based on the search for minimum values of the BIC.

Profiles of respondents with different types of self-perception were identified. The characteristics of the types were correlated with indicators of cognitive flexibilities, personal adaptive capacity, and mental state relief. Correlation analysis, regression analysis, analysis of variance, parametric and non-parametric analysis of comparison of subsamples were conducted.

Paragraph 2.4. presents the results of the adapted cognitive flexibilities survey. A study of the replica of the adapted method was organized and conducted. Adaptation was carried out in several stages. A total of *445* individuals participated in the survey. Most participants were students aged between 17 and 25 studying under the academic

bachelor's degree programs of the Faculty of Social and Human Sciences of the National Research University "Higher School of Economics" (*357 women, 88 men*), aged between *16* and *25* (*M = 18.59, SD = 1.19*). Initially, direct, and reverse translations were conducted, involving the expert group, native speakers and academic staff, and the final version was coordinated with its original developers. As a result, we obtained the following data: Cronbach's alpha for the general Cognitive Flexibility index being *0.86* (the average value of intercorrelation between 20 items of the survey was *r = 0.24*), for the "Alternatives" scale $\alpha = 0.77$; for the "Control" scale $\alpha = 0.81$. In the original survey, the coefficients of one-dimensional reliability varied in the range from *0.84* to *0.91*: the general index of Cognitive Flexibility $\alpha = 0.90\text{-}0.91$, the "Alternatives" scale $\alpha = 0.91$, the "Control" scale $\alpha = 0.84\text{-}0.86$. The retest reliability was estimated by the values of the Spearman correlation coefficients on the same scales of the survey were: *r = 0.68 (p<0.01)* for the total, *r = 0.67 (p<0.01)* for the "Alternatives" scale and *r = 0.64 (p<0.01)* for the "Control" scale (Kurginyan, Osavolyuk, 2018). In comparison, in the original survey the coefficients were higher*: r = 0.81; r = 0.75; r = 0.77.*

The validation of the Russian-language version of the inventory (CFI-R) was carried out by means of analyzing the links between individual ratings on scales of the inventory ("Alternatives" and "Control") and the integral indicator of the Cognitive Flexibility and the estimates on the scale of TQR (Tomsk Questionnaire of Rigidity, Zalevskiy G.V.).

During the adaptation, a two-factor structure of the inventory was obtained, with the recombination of several clauses. At the same time, despite the moderate values of the retest reliability of scales (*r-Spearman = 0.64-0.68*), the structure of the inventory, obtained in the Russian-language sample, showed its stability. The results of the confirmatory factor analysis show that the coefficients of the informative quality tests of the structural model do not show a tendency to grow from the first to the second test.

This version of the questionnaire has a moderately high rate of substantive, constructive, and criteria-based validity.

Paragraph 2.5. contains the results and the discussion of the characteristics of the self-relation process. Two sub-samples (2014 and 2018, Table 2) were involved in this phase of the study, with a total of 105 respondents. The result of the thematic analysis is a coding frame of self-relation indicators (Table 3), that act as the characteristics of the process of this relation and confirm hypothesis 1 about the functioning of the person's relation to self with its procedural aspects.

Table 3 - Topic titles

№	Topic titles
1	Self-other relations
2	Self-centering
3	Situational perception
4	Stability in changing conditions
5	Individualization
6	Integrity of self
7	Affective significance
8	Readiness for change
9	Unconscious and uncontrolled expression of thought
10	Correlation with others
11	Self-relation experience in interpersonal relations

The peer review of the results of the thematic analysis of the interview transcript showed that the identified topics were clearly defined, their description reflected its contents, and it is consistent with text fragments.

Each topic was given its own name and was substantively explained based on empirical evidence and the theoretical basis of this study. **Qualitative analysis of indicators** of self-relation are presented.

In subparagraph 2.5.1. the results of the factor analysis of the procedural characteristics of the self-relation are presented. Exploitative analysis has found a suitable three-factor model with a *KMO* of *0.638,* indicating a satisfactory sample

adequacy, the Bartlett sphericity criterion showed a statistically reliable result (*Approx.* χ^2 *= 196.27; df = 55; p < 0.000*). The resulting factors are further viewed as grounds for the typology of self-relation. For each factor, an interpretation procedure is conducted, considering its content and the specifics included in the characteristic factor (themes). Thus, three grounds were identified for constructing a typology of self-relation:

The first factor (susceptibility to the situation) is the most relevant and most informative at *24.55%.* It is represented by seven indicators: theme 7 "Affective significance", theme 8 "Readiness for change", theme 1 "Self-other relations", theme 4 "Stability in changing conditions", theme 3 "Situational perception", theme 2 "Self-centering".
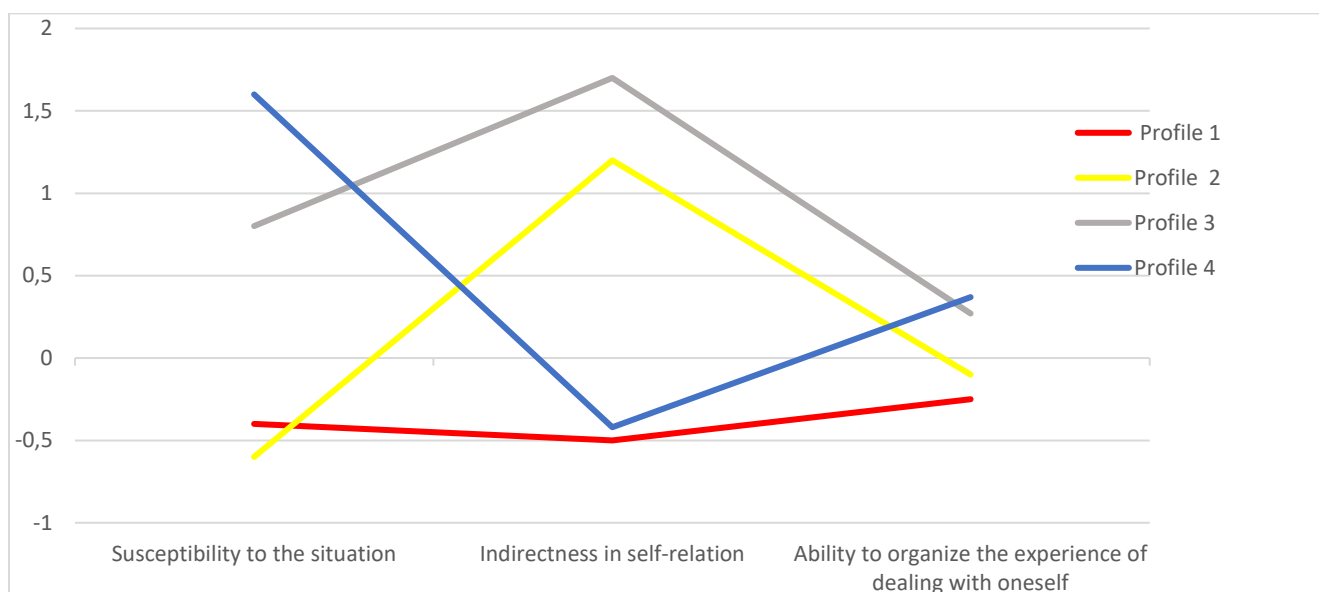
The second factor (indirectness in self-relation) has an informative value of *13.62%.* It is represented by theme 9 "unconscious and uncontrolled expression of thought" and theme 10 "correlation with others".

The third factor (the ability to organize the experience of dealing with oneself) has an informative value of *12.34%.* It is characterized by the "Individualization" theme (theme 5) and theme 6 "Integrity of self".

As a result, the identified grounds lend themselves to a clear interpretation in terms of the theoretical basis of the study and correspond to generally accepted psychological constructs.

Subgraph 2.5.2. is devoted to the definition of self-relation types and their characterization. As a result of latent profile analysis, four profiles (Figure 1) were selected. The number of profiles is determined according to the optimal values of the information criteria and the interpretational ability of the models. Thus, the selected *EEI* model has the lowest *BIC = 920.18, AIC = 920.18, Entropy = 0.84, BLRT = 0.01.*

Figure 1. Profiles of self-relation

Note: Susceptibility to the situation – F1; Indirectness in self-relation – F2; Ability to organize the experience of dealing with oneself – F3.

Thus, we have obtained a four-profile model that classifies the sample by the relation type. **The profile 1 (the latent type (*N=56 [53%]*)** is characterized by low rates of its factors. According to the theoretical understanding of the research, this representation indicates a low level of updating the resources, which means that respondents do not fully control them in the process of treating self. It is proven by the "I-conception" that shows the dynamic side of it and allows further change into the positive area. It is close to the research of the professional burn-out, where the functional part acts as an economy of the internal resources and in weakening of the emotional component (Boyko, 1999). Vodopyanova's research has shown that professional burn-out is related to the reduction of the object's resources and the involution of resource subsystems (2014). This means that low levels of different resources characterize the "burn-out" objects. Thus, in the process of naming of the type lies the idea that representatives of this type's functioning mechanism remain in the out-of-date resource field area. Considering that this profile acts as a dominant in this sample, the general situation of conducting the research was analyzed, that

corresponds to the exam period and is related to the high stress levels and the waste of resources.

The second profile **(profile 2, the indirect profile, N=13 [21%])** is characterized strongly by relying on the second base. At the same time, the values of the first and the third bases are significantly lower than zero. This means that in the process of treatment of self, correspondents of this type mostly resort to indirection: they distance themselves and use their resources from the external environment, in doing so, the other variants of treatment of self are not used. The respondents aim towards increased interaction with oneself, but the main functioning mechanism of this is the fact that appears because of the worries of others towards self. Those respondents need time and effort to realize the self. In the process of the interview, the long narrative pieces about self, but not about their own personality were noted. Reflection on the quality, the character, and the temperament is distant from the self. For example, some stories from the past, events, situations were narrated with the usage of formalities and facts, it's as if the interviewer's personality is not involved in the process. Clarifying questions have contributed towards selfhood. The respondents of this type often appealed to other people's experience in treating themselves. This, for example, could be followed by the story about how their friends or partners treat themselves. This experience, heard from the partner, acts as a linking element in the process of appealing to selfhood and researching the uniqueness of this process. The respondents needed effort to withstand the discussion directly related to their own selfhood, they easily became distracted and switched the topic of the conversation. It was noted that the respondents tried to avoid the connection with feelings and worries when it came to treating themselves, at the same time the rest of the interview was rather emotional.

The third profile **(Profile 3, the conformal type N=7 [7%])** is characterized by positive values in all selected bases of the typology. This shows that for the respondents of this profile, the process of dealing with oneself operates with the updating of the differently oriented mechanisms. On the one hand, the respondents see themselves

through the attitudes of others, and at the same time can organize their own experience in treating themselves, but they are more situational-oriented and extrapolate the characteristics of the situation to the process of treating oneself. Each basis has a positive value, which means that each of them is included in the process of self-relation. Naming the type was a hard process, because on the one hand, respondents in their self-relation may follow different options, on the other hand, there is a non-selectivity in not prioritizing how to interact with the self. This idea is embedded in the wording of the profile name. This profile has the lesser number of the respondents.

The fourth profile **(Profile 4, the situational type, N=20 [19%])** is characterized by negative values in mediation, positive values in the perception of the situation and the ability in organizing the experience of treating the self, and the situational aspect is more shown. Thus, we can see that the respondents of this type have less actualized mechanisms of mediation of the idea of self and the most actualized is the mechanism of treating the self in the process of the engagement with the situation. This shows that the respondents have enough potential to rely on the personal resources and can transform it with the mechanisms of realizing one's integrity, consistency of viewing themselves in the changing conditions.

The results of regression analysis are presented to determine the effect of the change of the mental state on self-relation. For the **latent** profile, the influence of changing mental processes on the stability changing conditions as well as the behavioral variability on affective relevance is established.

Regression analysis for **the indirect** profile showed that variability of mental processes, variability of physiological reactions, variability of experiences, variability of behavior negatively influences indirect views on self.

For the **situational** profile, regression analysis has shown that the variability of mental processes and the variability of physiological reactions have a positive and significant influence on the readiness to change, the change of the worries has a significant negative influence on the experience of treating oneself in interpersonal

relations, the change of the behavior has a positive influence on the self-orientation, the change of the physical reactions has a positive influence on the integrity of viewing the self.

A comparative analysis of age distribution between the profiles has shown that the greatest differences were noted between the situational and the conformal profiles. Both profiles show actualized resources in treating the self. The latent and the indirect profiles have differences both among themselves and other profiles. There is also a difference between the latent profile, that has no actualized resources, and the conformal profile, that uses all the resources in treating the self. The indirect profile has the highest number of younger respondents compared to other profiles, which correlates with the expectations of the process of self-relation and the observations during the interview.

A comparative analysis of the representation of the characteristics of the self-relation between psychology students and students of other faculties ("non-psychologists") has shown that there are significant differences between these subgroups by the level of representation of the "Individuation" theme (theme 5). This difference is supposedly related to the perception of the personal characteristics of people choosing a profession in psychology. According to earlier researches, psychology students are distinguished by the desire for self-knowledge and self-development (Buyakas, 2000; Kolesnikova, 2007).

An analysis of differences in the representation of self-identification indicators in the sample between men and women has revealed significant differences between men and women in the level of representation of the third basis: the "ability to organize the experience of dealing with oneself" and the "integrity of viewing oneself".

The subgraph 2.5.3. describes the study of cognitive flexibility and its contribution to self-relation. The size of the sample (sample 2018, see table 2) related to the combination of used methodology with the total of *47* respondents submitted was a limitation.

In the study of the connection between cognitive flexibility and the types of self-relation and personality characteristics, a considerable number of correlations between **the «control» aspect of CF and the scales on the "Adaptability"** was found. There is a negative correlation with the communicative abilities of the individual adaptive capacity *(r = - 0.404; p < 0.05),* which is related to the decrease in the control of difficult situations and the ability to establish contact and understanding with others, actualizing the experience and the need for communication. A negative link with depression and anxiety has been identified *(r = - 0.354, r = - 0.352, p < 0.05),* which correlates with research results by foreign authors (Cheng et al. 2014; Kashdan and Rottenberg 2010). The combination of examined correlations leads to the conclusion that the observed CF phenomenon is close to the personal characteristics that form the basis of its relative stability and permanence. Consequently, the expression of flexibility at the personal level has been recorded.

A negative correlation has been found between the first base of the typology (**susceptibility to the situation**) and **the «Control» aspect of CFC** and, as a result, with the same number of CFT (*r=- 0.306, r=-0.299, p<0.05*, respectively). The analysis of individual correlations has shown that when the personal individual adaptive capacity indicator is excluded from the relationship between the CF accept the Control and the first typology base (susceptibility to the situation), the correlation coefficient becomes more significant *(r = -0.343, p = 0.019)* which can be also viewed with the exclusion of aspects of personal adaptive capacity. The results of this analysis demonstrate that the negative link between the Control aspect of CF and the «susceptibility to the situation» base is not accidental. Respondents who are more likely to express their attitude by transposing the characteristics of the situation into this relation are less inclined to show their flexibility by controlling these situations. In this case, the control aspect can manifest itself at the procedural level of the person's functioning and can represent the properties of cognitive processes, thus demonstrating the duality of the CF manifestations discussed in the theoretical part of the study. This

fact is one of the main contradictions in the studies of foreign authors and it has not ceased to be relevant to this day.

Between the typology bases of self-relation and the personal characteristics of the individual adaptive capacity, two significant links have been identified: **indirectness in self-image** positively correlates with the **moral normative index** *(r = 0.390, p<0.01)* and negatively with the **index of depression** (D, pessimism) on the MMPI scale *(r= -0.321, p<0.05).* The analysis of individual correlations hasn't indicated an increase in the importance of the correlations. This shows that the procedural characteristics underlying the personality relationship typology are not related to relatively stable personality characteristics but may derive from them. This can be explained by different levels of manifestation of these phenomena, confirming the usefulness of the study of self-relation as a procedural development of a personality.

The dependence of an «ability to organize the experience of dealing with oneself» and the change in physiological reactions is identified in the «Relief of mental state» inventory.

The study of the contribution of cognitive flexibility to the types of relation had limitations and was conducted for the «situational» type. Correlation analysis revealed a significant positive correlation between the typological basis of the **«ability to organize the experience of dealing with oneself» and the «Control» aspect of cognitive flexibility**. For this type, the given base has the highest values amidst others and self-relation is conducted in the actualized resource field.

Analysis of the influence of cognitive flexibility on self-relation has shown that the aspect of **«Control» of cognitive flexibility has a significant negative impaction «susceptibility to the situation»** in the process of self-relation. Based on a theoretical understanding of cognitive flexibility, these results show that when the controlling aspect is reduced, susceptibility to the situation shows more often. Since the content of this basis is deeply related to the reflexive processes, the interaction between resource classes and the potential responses in the situation, for the respondents the situation

and its characteristics are becoming more accessible to the self, the respondents are opening to the situation happening around them and exploring the situation and its features.

An analysis of the distribution of cognitive flexibility between «psychologists» and students of other faculties («non-psychologists») has shown that there are more respondents with a high level of cognitive flexibility in the subgroup of «psychologists». An analysis of the expression of the «Alternatives» and the «Control» aspects has shown that the representation of high and low values of the «Control» aspect is similar. A high level of expression of the «Alternatives» aspect is more frequent in the sub-group of «psychologists», and a low level of expression is more often represented in the sub-group «non-psychologists». This result can be explained by the fact that psychology students update their ability to find various ways of solving problems to achieve the desired result, because of their personal characteristics as well as the choice in profession. The «Control» parameter is relatively high in both groups, which means that respondents of both subgroups are equally intensively updating their ability to perceive difficult situations as controllable. This result is linked with the study period - the end of the first semester and the beginning of the second semester for first-years. Many respondents noted this time of the year as a challenging period that requires serious involvement, multitasking and concentration.

The correlation in the relief of the respondent's condition before and after the interview made it possible to identify groups based on even/uneven indicators. Note that the «even-uneven» group is the smallest one, which may indicate a predominantly stabilizing effect, which was achieved by means of in-depth interviews aimed at the person's self-relation. The second group, characterized by the respondents whose mental state includes parameters that go beyond the area of relative stability in each of the four scales prior to the interview, and the displacement of all values of mental state characteristics to the area of relative stability after the study. This pattern may indicate the updating of flexibility through self-relation and the ability of the individual to

organize own experiences in accordance with changing conditions, as experienced in varying degrees by the interviewees. In this study, we turned to the analysis of the mental state of the respondents of this group, which indicated the activeness of the subject and the ability to react to changes in the environment (Osavolyuk, 2018).

GENERAL CONCLUSIONS OF THE RESEARCH

1. Self-relation as a process is studied while appealing to self by the individual, by observing the subject's transition from the existing to the desired way of organization.

- Based on the thematic analysis, eleven characteristics of developing a self-relation were empirically highlighted: self-other relations, self-centering, situational perception, stability in changing conditions, individualization, integrity of self, affective significance, readiness for change, unconscious and uncontrolled expression of thought, correlation with others and self-relation experience in interpersonal relations.

- The characteristics of self-relation are interindividually variable. Based on their representation, a typology of self-relation based on profiles' latent analysis is proposed. Four types were identified: «latent», «indirect», «conformal», and «situational». The analysis has not found the differences between profiles in the intensity and specificity of CF manifestations.

- Age differences in profiles were noted. The latent and the indirect profiles have several differences among themselves as well as with other types. The youngest respondents are of the indirect profile.

- There are differences in how the «Individuation» characteristic shows in a subgroup of psychologists and in a subgroup of students of other faculties. Psychologists tend to refer to this aspect during their self-relation more often.

These results confirm the second hypothesis about the existence of different types of self-relation and their differences.

2. Cognitive flexibility is a complex phenomenon that is shown in the personal and subjective aspects. Thus, the study of it can be linked to both personal and procedural characteristics.

- The connection of the «Control» aspect of cognitive flexibility with relatively stable personal characteristics of the «Adaptability» has been established. More cognitively flexible respondents are less anxious and depressed.

- The connection of the «Control» aspect of cognitive flexibility with susceptibility to the situation has been found that more cognitively flexible respondents are less inclined to situational perception.

- The contribution of the «Control» aspect of CF is shown in self-relation through the foundation of the «ability to organize the experience of dealing with oneself» for the «situational» type.

These results partially support hypothesis 1 on the duality of cognitive flexibility and hypothesis 3 on the impact cognitive flexibility has on self-perception.

3.   The change in the variability of the mental state leads to the change of self-relation in latent, indirect, and situational types. For each type the change is different. The most affected are the respondents of a conformal profile.

4.   The results of the study have not shown a separate connection of the «Alternative» aspect with the procedural characteristics of the self-relation, which may be related to the «Control» aspect being more developed, as well as the specificity of the «Alternative» aspect in the adapted method. The high values of the «Alternatives» aspect were found in the subgroup of «psychologists» and the low values were found in the subgroup of «non-psychologists», the «Control» aspect is equally represented in both subgroups.

In general, the objectives of the study have been achieved, but the results indicate the possibility of further research on the problem and more extensive replication.

In perspective, based on the results of this study, the structures of the relationship between cognitive flexibility and characteristics of self-relation should be studied first. The other direction should be increasing the sample to add the basis of the personality relationship typology. It is also possible to additionally study the

specifics of psychotherapeutic intervention in the process of self-relation, which would make it possible to approach the problem of updating the individual's resources. In addition, the probability of further studies on the role of reflexivity and intellectual resources in self-relation is promising. Also, one of the results of this study could be a prospect of a separate study of each profile and the factors that influence the severity of the grounds in the process of self-relation. However, the most interesting seems to be the study of the «conformal» profile, since its respondents operate on all grounds in the process of self-relation.

Thus, each of the empirical hypotheses was confirmed and, despite the limitations, we were able to record the phenomenon as a property of the cognitive process and as an individual's ability, as well as to determine further perspectives and focuses of study.

The study was done in the Department of Psychology of the National Research University «Higher School of Economics».

The main content of the work is reflected in the following publications:

1. Kurginyan S. S., Osavolyuk E. Psychometric Properties of a Russian Version of the Cognitive Flexibility Inventory (CFI-R) // Frontiers in Psychology. 2018/

2. Osavolyuk E., Kurginyan S. S. Cognitive Flexibility of the Personality: Theory, Measurement, Practice // Psychology. Journal of the Higher School of Economics. 2018. T. 15. № 1. PP. 128-144.

3. Kurginyan S. S., Osavolyuk E. Cognitive Flexibility Questionnaire (CFI): Adaptation to the Russian-Speaking Sample // Psychological Journal. 2018.Vol. 39. № 2. PP. 105-119.

4. Osavolyuk E.Yu. The role of cognitive flexibility in attributional style and coping during early adulthood // Psikhologicheskie Issledovaniya. 2020.Vol. 13, № 74, PP. 2.

Other publications

1. Osavoliuk E.Yu. Mezhdisciplinarnyj podhod v psihologii k issledovaniju kognitivnoj fleksibil'nosti lichnosti // Molodye uchenye – stolichnomu obrazovaniju. Materialy HV Gorodskoj nauchno-prakticheskoj konferencii s mezhdunarodnym uchastiem. Tom 1. S. 75-76. [Jelektronnyj resurs] - M.: GBOU VPO MGPPU, 2016. – 383 s.

2. Osavoliuk E.Yu. Kognitivnaja fleksibil'nost' i ee izmerenie // Materialy Mezhdunarodnogo molodezhnogo foruma «Lomonosov-2017» / Otv. Red. I.A. Aleshkovskij, A.V. Andrijanov, E.A. Antipov. [Jelektronnyj resurs] – Moskva : MAKS Press, 2017.

3. Osavoliuk E.Yu. Svjaz' kognitivnoj fleksibil'nosti lichnosti s formal'no-dinamicheskimi svojstvami individual'nosti // Fundamental'nye i prikladnye

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4. Osavoliuk E.Yu. Analiz struktury neravnovesnogo psihicheskogo sostojanija v situacii interv'ju. // Psihologija sostojanij cheloveka: aktual'nye teoreticheskie i prikladnye problemy. / otv. red.: B.S. Alishev, A.O. Prohorov, A.V. Chernov. – Kazan': Izd-vo Kazan. un-ta, 2018. – 628 s.

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