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## Identification of Markers for Models of Meaning Constructs

*Abakumova Irina V.<sup>1</sup>, Godunov Mikhail V.<sup>2\*</sup>, Grishina Anastasia V.<sup>3</sup>*

<sup>1</sup>Corresponding Member of Russian Academy of Education, Don State Technical University, Rostov-on-Don, Russian Federation, e-mail: [abakira@mail.ru](mailto:abakira@mail.ru)

<sup>2</sup>Educational and Methodical Center «Tempus», Rostov-on-Don, Russian Federation, e-mail: [godunmv997@gmail.com](mailto:godunmv997@gmail.com)

<sup>3</sup>Don State Technical University, Rostov-on-Don, Russian Federation, e-mail: [avgrishina.donstu@gmail.com](mailto:avgrishina.donstu@gmail.com)

**Abstract:** Strategies of meaning formation are included in the highest level of regulation of an individual life. The article presents the results of empirical determination of the polar meaning strategies marker. In the initial modeling of the meaning formation processes, two polar strategies are proposed: adaptive and developmental. The system of personal meanings occupies a central place in the structure of the personality and is correlated with its properties manifested in interactions. For an empirical description of polar strategies, we developed nine scales of personality properties according to the type of private semantic differential. In these bipolar semantic scales, we used words that denote personality traits that act as indicators of meaning. An empirical study was carried out with the use of various techniques for studying semantic regulation of a person to determine a marker that allows one to identify these meaning strategies. The battery of tests included: the author's private semantic differential, including nine scales of personality properties, "Test of life-sense orientations" (by D. A. Leontiev), test "Who Am I?" (by M. Kuhn), "Multiple intelligence test" (by G. Gardner), "Test of frustration tolerance" (by S. Rosenzweig), "Questionnaire of personality reflection" (by I. A. Stetsenko). An empirical sample ( $n = 145$ ) found that a stable positive statistically significant correlation ( $p \leq .05$ ) exists only between the indicators of nine developed scales of personal properties and the indicator "Meaningfulness of life" in the "Test of life-sense orientations" by D.A. Leontiev. This indicator "Meaning-fulness of life" can be used as an indicator marker of polar strategies of meaning formation: adaptive and developmental. Its use contributes to a more effective study of the processes of meaning formation and reduces the laboriousness of diagnostic procedures.

*Keywords:* meaning, semantic construct, meaning-building strategy, personality trait, semantic scale.

### Introduction

Personal meanings as cognitive constructs are the basis of the content of the personality meaning sphere. Personal meanings are involved in the meaning regulation of human activity at the highest cognitive level (Asmolv, 2016; Frankl, 1990). Only a category of meaning allows one to operate with different meanings of phenomena and to organize them in more general contexts of the ongoing processes of life. The category of meaning, speaking mainly as the subject of Russian psychological research, is more capacious than the category of sense, which is studied more in European and American science. Under the influence of personal meanings a hierarchical restructuring of the system of motives and values takes place (Abakumova, 2014; Vasilyuk, 2016). The value-motivational sphere is involved in the formation and updating of strategies for the meanings formation and their subsequent implementation in activity (Bratus, 2014; Vasyukova, 2009). It is known that the processes of the meanings formation are considered in terms of their generation and flow from peripheral areas in the field of generalized meanings as "infusion of meanings" (Leontiev, 2014).

At the same time, the processes of actualization of meaning constructs having an estimated nature with its inherent polarity are studied fragmentarily and require a more complete description and modeling. The polarity of the processes of meaning formation is due to the possibility of joining or not joining perceived meanings into existing stable meaning constructs. In the process of evaluation and meaning choice, a multidirectional process takes place - acceptance or non-acceptance of perceived meanings. The attachment of meanings as a semantic addition occurs upon the appearance of meaning consonance (coincidence) between the perceived and existing meaning content. Non-attachment of meanings as semantic ignorance appears when meaning dissonance (mismatch) occurs between the perceived and

\*Corresponding author: [godunmv997@gmail.com](mailto:godunmv997@gmail.com)

existing meaning content (Abakumova et al., 2016). The first, adaptive strategy of meaning formation is a method of organizing the meaning sphere based on the stereotypical predetermination of goals, aimed at compensating the developmental shortcomings of the individual by adjusting and uniform movement in the layer of already acquired personal meanings under the influence of the external environment, perceived as dominant and determining its vital activity. The second, developmental strategy of meaning formation is a method of transforming the meaning sphere oriented to the recognition of motives and the generation of urgent goals, aimed at the formation of promising meanings and the timely restructuring of their content to realize the possibility of personal growth under the influence of external factors, assessed as surmountable living conditions during self-determination by an individual of his activity (Abakumova, Godunov, 2017).

The possibility of establishing specific markers that indicate the first or second strategies for the meanings formation makes it possible to increase the efficiency of modeling the development of the semantic sphere, which reflects the ways of personality development. It also allows to reduce the laboriousness of conducting psychological testing when revealing a semantic personal profile of respondents. The purpose of the article is to present the results of empirical identification of indicators-markers of polar meaning strategies - adaptive and developmental.

### Materials and methods

The aim of the study is to identify markers of adaptive and developing strategies for the meaning formation. Research hypothesis: the level of meaningfulness of life is higher among people with a developing strategy of meaning formation than among people with an adaptive strategy. In the three-level structure of personality, in addition to the worldview core and the external expressive-instrumental shell, there is a value-semantic sphere as a middle level containing personal meanings (Leontiev, 1997). Namely personal meanings make up the quality and content of human relations both in the internal and in the external world. The design and actualization of personal meanings occurs under the influence of individual experience, emotional experiences and assessments, cognitive attitudes, behavioral patterns, developmental circumstances and conditions of situational interactions. When identifying and evaluating the features of semantic-forming strategies, one should pay attention to the fact that the system of personal meanings is in a certain correspondence with personal properties that are manifested in situational interactions.

Such a mutual correspondence means, on the one hand, that personality traits express only those personal meanings that are really contained in the value-meaning sphere and the worldview core of a person. On the other hand, under the influence of existing personal meanings, the features of interactions and situational relations are formed. It is manifested by the corresponding personality properties as distinctive signs. Therefore, personal meanings act as prototypes, and personal properties as their corresponding images, that is, derivatives of meanings. This mutual correspondence between personal meanings and personality traits shows its integrity and identity (Abakumova et al., 2016).

Using various scales of personality traits allows to establish the features of their manifestation in various areas of personality interactions. According to M. Rokich, the value-semantic sphere regulates the choice of goals and means of activity in accordance to generalized ideas of the person about the possible benefits and ways to achieve them (Voronova, 2017). At the same time, personal meanings act as life values and actualize the corresponding strategies for personality development. The realization of the value-meaning potential of an individual occurs in three main areas (Dyakov, 2015; Kotlyakov, 2013): worldview, behavioral, and cognitive.

For each of these areas, one should have a description in the language of personal properties through bipolar semantic scales. Their structure is expressed by a dipole with two attractors and intermediate meanings passing through the neutral level. The personality traits in such scales are key denotations, that is, special labels as indicators of meaning. Based on previous studies, we have selected nine scales of personality traits (Godunov, 2014), which reflect a correspondingly developmental and adaptive strategy of meaning formation.

In each scale, the three upper words reflect the developmental strategy of meaning formation (+), the middle level shows the neutral state (0), and the three lower words reflect the adaptive strategy (-) (Godunov, 2014). These words, as personality traits, in semantic scales have a semantic connection with the corresponding directions of the study of meanings (Table 1).

The formed set of personal properties scales, according to the type of private semantic differential, shows the personality profile and reflects the features of the actual strategies of meaning-formation. In order to identify marker indicators that can be used to diagnose the proposed two polar strategies of

meaning formation, we used some well-known and approved methods for studying the meaning features of personality development.

**Table 1**  
*Personal Property Scales*

1) world outlook direction: +3 self-sufficiency +2 meaningfulness +1 responsibility 0 disinterest -1 levity -2 inadvertence -3 disorganization	2) behavioral direction: +3 tranquility +2 civility +1 leniency 0 indifference -1 bravado -2 impatience -3 inadequacy	3) verbal-linguistic: +3 eloquence +2 erudition +1 originality 0 conventionality -1 narrowness -2 categoricity -3 stereotype
4) logical-mathematical direction: +3 abstractiveness +2 systemacy +1 logicity 0 linearity -1 inconsistency -2 fragmentariness -3 banality	5) visual-spatial direction: +3 imagery +2 expressiveness +1 accuracy 0 mediocrity -1 disorder -2 disunity -3 disproportion	6) motor-leading direction: +3 vitality +2 plasticity +1 mobility 0 ordinariness -1 mismatch; -2 sluggishness -3 passivity
7) musical and rhythmic direction: +3 rhythmicity +2 musicality +1 proportion 0 mediocrity -1 narrowness -2 obsession -3 monotony	8) interpersonal direction: +3 sociability +2 trustfulness +1 benevolence 0 lack of interest -1 hesitation -2 distrustfulness -3 isolation	9) intrapersonal direction: +3 confidence +2 calmness +1 attentiveness 0 unpretentiousness -1 emotionality -2 irritability -3 suspiciousness

Among them were included: "Test of lifesense orientations" (by D. A. Leontiev) (Biktina, 2019), test "Who Am I?" (by M. Kuhn) (Tkhostov, Rasskazova, Emelin, 2014), "Multiple intelligence test" (by G. Gardner) (Gardner, 1983), "Frustration tolerance test" (by S. Rosenzweig) (Vinogradova, Ryzhov, 2012), "Questionnaire of personality reflection" (by I. A. Stetsenko) (Stetsenko, 1998). The combination of these techniques, together with the proposed particular semantic differential of personal properties (Table 1), made up the general battery of tests. With their help, a sample with a total number of 145 people was empirically investigated. The following graduation was performed in the sample - by age: 102 people of young age 18-23 years old and 43 people of middle age 26-56 years old; by gender: 112 women and 33 men; by professional sign: 80 psychology students, 30 historian students and 35 school teachers. To compare the empirical distributions of gradations of features in the samples, it is correct to use the Pearson criterion, suitable for samples of volume  $n \geq 30$  (Morozova, Nasledov, 2010).

## Results

The Pearson pair correlation coefficients calculated from (Morozova, Nasledov, 2010) showed the following empirical results. A stable positive statistically significant correlation ( $p \leq 0.05$ ) was found only between the indicator "Meaningfulness of life" of the "Test of life-sense orientations" (by D. A. Leontiev) and the indicators of nine developed scales of private semantic differential of personal properties (table 1). No statistically significant correlation of these scales with indicators of other tests was found. The data of identified statistically significant correlation coefficients are presented in table. 2.

**Table 2**

The empirical value of the Pearson correlation coefficients is  $r_{emp}$  (with a statistical significance level of  $p \leq .05$ ) between the average values of the scales of the partial semantic differential of the personality's polar properties and the meaningfulness of life test by D. A. Leontiev

The scale of the partial semantic differential of the polar properties of personality	The value of the empirical Pearson correlation coefficient $r_{emp}$ (in parentheses is the critical correlation coefficient $r_{cr}$ for the corresponding volume of the empirical sample (n), person)						
	By age		By gender		By professional orientation		
	Young age 18-23 лет ( $r_{cr}$ =0,197 for n=102)	Middle age 26-56 лет ( $r_{cr}$ =0,301 for n=43)	Female ( $r_{cr}$ =0,187 for n=112)	Male ( $r_{cr}$ =0,344 for n=33)	Students of Psychology faculties ( $r_{cr}$ =0,22 for n=80)	Students of History faculties ( $r_{cr}$ =0,364 for n=30)	School teachers ( $r_{cr}$ =0,344 for n=35)
1) world outlook direction	0,322	0,341	0,352	0,373	0,355	0,384	0,369
2) behavioral direction	0,259	0,327	0,321	0,35	0,337	0,369	0,354
3) verbal-linguistic	0,227	0,328	0,195	0,466	0,278	0,425	0,359
4) logical-mathematical direction	0,203	0,309	0,189	0,362	0,258	0,402	0,436
5) visual-spatial direction	0,221	0,571	0,298	0,365	0,227	0,457	0,578
6) motor-leading direction	0,387	0,397	0,401	0,358	0,381	0,373	0,413
7) musical and rhythmic direction	0,454	0,408	0,449	0,449	0,401	0,636	0,399
8) interpersonal direction	0,409	0,319	0,38	0,526	0,369	0,534	0,38
9) intrapersonal direction	0,313	0,507	0,341	0,513	0,356	0,375	0,683

Based on the data in Table 2, we will consider the indicator "Meaningfulness of life" in the "Test of life-sense orientations" (by D. A. Leontiev), the main indicator marker of the studied polar strategies of sense formation.

## Discussions

In the course of the experimental study of the private semantic differential of the personality traits' polar scales, we established a statistically significant positive correlation between the proposed nine scales and "Meaningfulness of life" in the "Test of life-sense orientations" (by D. A. Leontiev). If the respondent has a higher level of this indicator than the average value for the sample (taking into account the standard deviation), then the indicators of his personality characteristics scales are positive (Table 1), which corresponds to a developing meaning formation strategy. If the "meaningfulness of life" indicator was lower than the average value for the sample (taking into account the standard deviation), then the indicators of its personality characteristics scales are negative (Table 1), which corresponds to an meaning formation strategy. If this indicator is at the average level for the sample, then such a respondent is "between the poles" and has an intermediate strategy. This is due to unformed methods of updating personal meanings or the presence of a transitional form of meaning initiations in a situational order.

This is natural, since this indicator reflects the conscious self-reflection of a person in relation to his life. This circumstance is due to the successful methodological construction of the "Meaningful Life Orientations" test, in which test questions are selected and formulated in such a way that they appear to be fully conscious, concrete and clear to the perception of the respondent's consciousness. M. Kuhn test "Who Am I?" describes the perception of role-based identity, which may not always reflect attitudes toward other people. In the Gardner's multiple intelligence test, various types of intellectual abilities are identified. The logical-verbal type methodology inherent in traditional test questionnaires is not completely suitable for the assesment these types of intellectual abilities. The test of frustration tolerance by S. Rosenzweig allows us to predict the emotional reaction to interference when achieving goals, but does not give an idea about the structure of personal meanings. When answering the questions of the test-questionnaire of personal reflection by I.A. Stetsenko, the respondent accepts that something is happening to him, but

he can't explain it meaningfully, since self-reflection is a more general attitude towards oneself than the meaningfulness of life, which is more specific and conscious.

## Conclusions

The use of the "Meaningfulness of life" of the "Test of life-sense orientations" (by D. A. Leontiev) as a marker is possible when revealing a developmental or adaptive strategy of meaning-formation. For example, if the average level of the "Meaningfulness of life" marker is revealed in the sample, then for a particular respondent:

- if the indicator of his individual marker "Meaningfulness of life" is higher than the average value in the sample (taking into account the standard deviation), this corresponds to a developmental strategy of meaning formation;

- if the indicator of his individual marker "Meaningfulness of life" is lower than the average value in the sample (taking into account the standard deviation), this corresponds to an adaptive strategy of meaning formation.

Thus, to determine the actual polar strategy of sense formation (adaptive or developmental), we empirically identified a marker - the indicator "Meaningfulness of life" in the "Test of life-sense orientations" (by D. A. Leontiev). This helps to study the processes of meaning formation more efficiently and reduces the complexity of the relevant psychological testing procedures. This helps to carry out research on the processes of meaning formation more effectively, reduces the complexity of the relevant psychological testing procedures and does not require a large battery of tests.

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## Conflict of interests

The authors declare no conflict of interest.

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