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Psychological Correlates of Achievement Motivation on the Personal-meaning Level

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Abstract

This article is devoted to the study of psychological correlates of the achievement motivation on the personal-meaning level of the first-year psychology students. The author revealed a wide range of psychological correlates of achievement motivation: value orientations (universal values, power, self-development, etc.), the parameters of existential fulfillment (self-transcendence, freedom, etc.) and the general level of life meaningfulness, self-actualization parameters (creativity, self-acceptance, spontaneity, etc.). Based on the conducted correlation research, the author developed a training program aimed at actualization and growth in the motivation of the first-year psychology students. The study involved experimental and control groups. In the course of the study, when comparing the data of preliminary and final testing, the dynamics of achievement motivation indicators in the experimental group was revealed in the direction of increasing the achievement motivation, while in the control group there were no significant differences in the level of achievement motivation, which indicates the effectiveness of the training developed by author. At the same time, it is shown that the growth of the achievement motivation occurred due to the growth of its transcendent component, which is a good indicator, since psychology students with high motivation of transcendence are predominantly oriented toward acquiring knowledge and mastering the profession. The data obtained in the study enriches author's understanding of the psychological phenomenon, such as achievement motivation, and have applied significance: the training program developed by the author can be used to increase the achievement motivation of students and can also be tested on another contingent.

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1. Introduction

At present, research aimed at studying such a psychological phenomenon as the achievement motivation, is becoming increasingly important. The interest in studying this problem is largely due to the fact that modern society, with its rapidly changing technologies, intensive development, requires from a person to acquire constantly new knowledge, attainments and skills. Therefore, great importance in the life of modern man acquires the achievement motivation, which contributes to the constant development of man both professional and personal, and also helps a person to find his place in the society, to realize himself. Achievement motivation is a reliable predictor of academic achievement in school and University, as well as success in business and other professions (in particular, studies have shown that the level of achievement motivation is a more reliable predictor of success than intelligence [1, 2]. In general, in the world and in Russia, in particular, there is a request of employers for such employees who know how to set goals and achieve them, strive for permanent professional development, mastering new technologies of work, are able to solve non-standard tasks, etc. And these are traits that are inherent in people with a pronounced achievement motivation.

Currently, people often turn to counseling psychologists with problems of goal-setting, a desire to improve their effectiveness in various life spheres. Coaching as the direction of practical psychology is popular today, the main purpose of it is to promote the self-development of a man. The various trainings aimed at actualization and growth of the achievement motivation are no less popular. But the number of publications devoted to the description and analysis of the effectiveness of these trainings are rather small. In addition, the trainings are mainly aimed at working with the behavioral block of achievement motivation. From our point of view, it seems more expedient to work with the personal-meaning (value-goal) block of achievement motivation (the model of achievement motivation by T. Gordeeva [1]). Despite the fact that this block of achievement motivation is main in the structure of the achievement motivation, it has been studied relatively little. In general, research in this area is devoted to the study of the basic needs, underlying the motivation of a person. At the same time, in the modern psychological literature there are practically no studies that would be aimed at revealing what values and meanings are psychological correlates of the achievement motivation on the personal- meaning level.

Based on this, the aim of our work was to study psychological correlates of achieve-ment motivation on the personal-meaning level. The results obtained within the framework of the correlation study were used by us to build a training course aimed

at building the achievement motivation by working with its value-goal block and verifying its effectiveness.

2. Materials and Methods

The students of the first course of the psychology department of the Ural Federal University named after the first President of Russia, Boris N. Yeltsin, acted as a sample for the correlation study. The total number of study participants was 68, 15 of them were boys and 53 girls.

In the experimental research involved 1st students of Psychology Department of the Ural Federal University in the total number of 60 people. Thirty people, with whom the training sessions were conducted, aimed at increasing the achievement motivation, entered the experimental group, thirty people – the control group. The compared groups do not differ in age, they have approximately the same sex composition (25 girls and 5 boys in the experimental group, 23 girls and 7 boys in the control group).

The objectives of the research determined the choice of empirical methods. During the conduct of the correlation research, we used seven personality questionnaires. To study the value orientations, we used the Schwartz's Value Inventory in adapting of V.N. Karandyshev and the questionnaire of terminal values of I.S. Senin. The Schwartz's Value Inventory is designed to measure the significance of ten types of values: conformance, traditions, kindness, universalism, power, security, independence, stimulation, hedonism, achievement. The questionnaire of I.S. Senin makes it possible to assess the severity of each of the eight fundamental values: personal prestige, high financial status, creativity, active social contacts, self-development, achievements, spiritual satisfaction, preservation of one's own personality, and their representation in various spheres of a person's life.

To study the sphere of personal senses of a man and, in general, the level of life meaningfulness, we used the Existence Scale of A. Langle and K. Orgler in the adaptation of I. N. Meinina and the test of the meaningful orientations of D.A. Leontiev. The existence scale of A. Langle is aimed at measuring seven parameters: 'Self-distancing', 'Self-transcendence', 'Freedom', 'Responsibility', 'Personality', 'Existence', 'General indicator of existential fulfillment'. The technique of D.A. Leontiev contains six scales: 'Goals', 'Process', 'Result', 'Control locus – I', 'Control locus – Life', 'Meaningfulness of life'.

To study the self-actualization of students, we used the self-actualization test of E. Shostrom in the adaptation of Yu.E. Aleshina and others. The methodology contains

two basic scales: the competence scale in time and the support scale, as well as 12 additional scales: a scale of self-sensitivity, self-acceptance, creativity, etc.

To study the achievement motivation, we used: A. Mehrabian's test in the adaptation of M.Sh. Magomed–Eminova and the technique 'Achievement motivation: adaptation and transcendence' by O.S. Vindeker (AMAT). A. Mehrabian's test is aimed at diagnosing two persistent personal motives: the motive for achievement and the motive for avoiding failures and assessing which of them is dominant. O.S. Vindeker suggests studying the structure of achievement motivation, namely its transcendental and adaptive component. Adaptive component reflects a person's desire to focus on external standards: the desire for social success, approval and recognition from other people. The transcendental component reflects a person's desire to constantly improve, develop, not stop at what he has achieved, overcome himself, go beyond his possibilities.

As a method of statistical data processing, the Spearman correlation coefficient was used.

The forming experiment was a complex of training sessions with students-psychologists of the 1st year course of the Ural Federal University. Preliminary and final testing was carried out using the following psychodiagnostic techniques: Schwartz's Value Inventory, I. G. Senin questionnaire of terminal values, the test of A. Mehrabian achievement motivation, the technique 'Achievement motivation: adaptation, transcendence'. The training program was focused primarily on working with the value-target block of achievement motivation, that is, with values, personal meanings, human goals and its intrapersonal resources. Within the framework of the training sessions, exercises from coaching, art therapy and other areas of practical psychology were used. The data were processed using mathematical statistics methods (the U – criterion of Mann–Whitney, the T – criterion of Wilcoxon).

3. Results

We have identified a wide range of psychological correlates of achievement motivation on the personal-conceptual level.

Thus, in particular, examining the relationship between the achievement motivation and value orientations, we found the following patterns: the achievement motivation, measured with AMAT method, is positively associated with all terminal values according to I.G. Senin: social prestige ($r = 0.43$; $p \leq 0.01$); high financial status ($r = 0.41$; $p \leq 0.01$); creativity ($r = 0.33$; $p \leq 0.01$); active social contacts($r = 0.45$; $p \leq 0.01$), self-development ($r = 0.4$; $p \leq 0.01$); achievements ($r = 0.55$; $p \leq 0.01$); spiritual satisfaction

(r = 0.32; $p \leq$ 0.01); preservation of one's own individuality (r = 0.4; $p \leq$ 0.01). The achievement motivation, measured with the method of A. Mehrabian, correlates with such values as creativity (r = 0.30; $p \leq$ 0.05); active social contacts (r = 0.25; $p \leq$ 0.05); achievements (r = 0.30; $p \leq$ 0.05); preservation of one's own individuality (r = 0.25; $p \leq$ 0.05). The presence of these relationships suggests that people with high achievement motivation seek to achieve respect and recognition from other people, establish constructive relationships with them, strive to realize their potential, preserve their own uniqueness and independence, and receive moral satisfaction from their activity and achieved results. The obtained data are in general correlated with the concepts of achievement motivation proposed by various authors, in particular M.L. Kubishkina [3], who defines the motive of achievement as a pursuit to social success, H. Schuler [4–6], who, as the main motivating components of achievement motivation calls orientation to status, competition, independence, activity, initiative, curiosity, persistence, pride for success.

Analyzing the relationship between achievement motivation and value orientations according to Sh. Schwartz, let us turn to his theory of dynamic relations between value types. According to this theory, ten value types are organized into two bipolar measurement axes:

1. openness to change: the values of independence and stimulation are conservatism: values of security, conformity and traditions;

2. self-enhancement: the values of power and achievements – self-transcendence: universalism and kindness [7–9].

The data obtained in the study indicate that the achievement motivation is related to such a value block as the openness to changes (value of independence: r = 0.33; $p \leq$ 0.01 for achievement motivation according to the method of A. Mehrabian and r = 0.29; $p \leq$ 0.05 for achievement motivation according to AMAT, the value of stimulation: r = 0.4: $p \leq$ 0.01 in both cases), and is not associated with a block of conservatism. The obtained relationships are correlated with the description of people with high motivation for success, given by D. McClelland [10], and the characteristics identified by H. Schuler [4–6]. Both authors note that people with pronounced achievement motivation are inclined to novelty, to innovation, to self-development and self-improvement; flexibility and independence are characteristic to such people, therefore values of conformism, traditions and safety are not significant for them.

Also, the achievement motivation is associated with two competing blocks: a block of self-enhancement and self-transcendence. Thus, the achievement motivation measured with Mehrabian's method correlates with the value of kindness (r = 0.28; $p \leq$

0.05) and universalism (r = 0,34; $p \leq$ 0.01), and the achievement motivation, measured with the method AMAT, is associated with the value of kindness (r = 0.28, $p \leq$ 0.05); with the value of achievements (r = 0.29; $p \leq$ 0.05) and the value of power (r = 0.38; $p \leq$ 0.01). It turns out that people with high achievement motivation combine two opposites. For them, the values of power and achievement, and the values of kindness and universalism are significant. The resulting relationships can be explained on the basis of the fact that according to the concept of O.S. Vindeker [11], two structural components are distinguished in achievement motivation: adaptive motivation and transcendence motivation. The adaptive motivation is characterized by the desire for social success, the achievement of socially significant values and the transcendence motivation is characterized by orientation toward life (universal) values and the desire for self-improvement.

Let's turn to the analysis of the interrelations between the achievement motivation and the parameters of existential fulfillment. The author of the theory of existential fulfillment and the corresponding questionnaire of A. Langle [12, 13] singles out the following parameters of existential fulfillment:

(a) self-distancing as a person's ability to go to a distance in relation to himself and to look at himself and the situation from the outside;

(b) self-transcendence as a person's ability to go beyond his 'I', experience values, live for someone or for the sake of something: a beloved person, a profession, etc.;

(c) freedom as a person's ability to make independent decisions, guided by his own system of values and meanings, the freedom of the individual to find and realize his meaning of life;

(d) responsibility for finding and realizing the meaning of life, for the embodiment of values, for the implementation of accepted decisions;

(e) personality as a harmonious relationship between self-distancing and self-transcendence: a person is able to establish distance with himself, maintain free internal space and at the same time to be open to himself and to the world, emotionally responsive; and

(f) existentiality as a harmonious relationship between freedom and responsibility: the ability of a person to orient himself in the world around him, to make decisions, to implement them and to bear responsibility for them.

In general, these parameters reflect the general level of existential fulfillment of a person: the meaningfulness of life and the sense of completeness of life by the person himself.

We found the positive relationship between the achievement motivation, measured by the method of A. Mehrabian, with the general level of existential fulfillment (r = 0.27; $p \leq$ 0.05), as well as with all the parameters of existential fulfillment, in particular, with self-distancing (r = 0.29, $p \leq$ 0.05), self-transcendence (r = 0.25; $p \leq$ 0.05), freedom (r = 0.38; $p \leq$ 0.01), personality (r = 0.28; $p \leq$ 0.05), existentiality (r = 0.31, $p \leq$ 0.05), with the exception of responsibility (there is a tendency for a correlation link). The achievement motivation measured with the AMAT method correlates with such parameters of existential performance as self-transcendence (r = 0.31; $p \leq$ 0.05), freedom (r = 0.43; $p \leq$ 0.01), personality (r = 0.29; $p \leq$ 0.05) and existentiality (r = 0.27; $p \leq$ 0.05).

The data obtained show that people with a strong achievement motivation are characterized by their field-independent perceptual style, have rich inner world and are in contact with it. Such people are able to devote themselves to serving the cause or person, are able to see a wide range of possible actions and make meaningful decisions and generally devote their lives to the realization of certain goals and the implementation of meaning. The patterns revealed by us are correlated with the concepts of achievement motivation by H. Heckhausen [2], who emphasizes that people with a strong sense of achievement can strategically evaluate time and their lives, set long-term goals and go to them, despite obstacles, D. McClelland [10] and H. Schuler [4–6], who note that a person with strong achievement motivation is characterized by active attitude toward the world, determination, independence of decisions and responsibility for them, preference for difficult tasks, the ability to cope with difficulties and the research of I.N. Mainina [14], in which it was shown that a person with an achievement-oriented set has consistently high scores on the self-distancing scale, and his character is distinguished by high self-control.

Similar data were obtained by us in analyzing the relationship between the indicators of methods aimed at studying the achievement motivation, and the methodology of meaningful orientations of D.A. Leontiev. Thus, in particular, the achievement motivation, measured with the method of A. Mehrabian, and with the AMAT method, correlates with the general indicator of life meaning (r = 0.29; $p \leq$ 0.05 for achievement motivation according to A. Mehrabian and r = 0.35; $p \leq$ 0.01 for achievement motivation according to AMAT) and with one of the parameters of life meaningfulness: the process of life (how much a person perceives his life as interesting, emotionally saturated, filled with meaning) (r = 0.31; $p \leq$ 0.05 for achievement motivation according to A.

Mehrabian and r = 0.33; $p \leq 0.01$ for achievement motivation according to AMAT). In addition, the achievement motivation, measured with AMAT method, positively correlates with other parameters of the meaningfulness of life: the existence of goals in life (r = 0.28; $p \leq 0.05$), the effectiveness of life as a degree of satisfaction as already lived span (r = 0.26; $p \leq 0.05$), the locus of control – Life as a person's sense of the fact that he can control his life and freely makes decisions (r = 0.31; $p \leq 0.05$). Thus, the obtained data also show that people with strong achievement motivation devote themselves and their lives to self-development, self-improvement, enjoys the very process of achieving the goal, are inclined to evaluate their lives from the perspective of performance and experience spiritual satisfaction from achieved successes and, in general, perceive their lives as productive and filled with meaning.

We also identified the links between achievement motivation and self-actualization parameters. So, the achievement motivation, measured with A. Mehrabian's technique, is positively connected with the basic characteristics of self-actualization: the scale of orientation in time (r = 0.28; $p \leq 0.05$) and support (r = 0.33; $p \leq 0.01$), and also with at least one of the parameters in each of the self-actualization blocks: (a) value block: value orientations (r = 0.39; $p \leq 0.01$); (b) sense block: spontaneity (r = 0.39; $p \leq 0.01$); (c) self-perception block: self-esteem (r = 0.48; $p \leq 0.05$) and self-acceptance (r = 0.27; $p \leq 0.05$); (d) the human concept block: notions about human nature – the tendency to perceive the nature of man in whole as positive (r = 0.27; $p \leq 0.05$); (e) a block of interpersonal sensitivity: the acceptance of aggression (r = 0.29; $p \leq 0.05$); (f) a block of attitude to cognition: cognitive needs (r = 0.29; $p \leq 0.05$) and creativity (r = 0.34; $p \leq 0.01$). Based on this, we concluded that the achievement motivation is also related to self-actualization in general. The achievement motivation, measured with AMAT method, is not related to the basic characteristics of self-actualization: the scale of orientation in time and support, but is associated with, at least, one of the parameters in each of the self-actualization units. In general, the obtained data on the relationship between achievement motivation and self-actualization parameters allow us to conclude that people with strong achievement motivation have competence over time, they are capable to holistic perception of time, they are able to appreciate and manage it. Also, people with high achievement motivation are independent in their actions, are not subject to external influence, share the values of a self-actualizing person (values of self-development, personal growth, universal values, etc.) are able to behave naturally and freely express their feelings, know how to value their dignity, positive qualities of character, while taking their shortcomings and destructive manifestations, in particular aggressiveness, have pronounced cognitive needs and creativity. The obtained data are correlated with the studies of H. Hekhausen (people

with high achievement motivation see time as purposeful rapid movement, they use time for planning the movement toward the goal, people with low achievement motivation perceive time as aimless continuous flow) [2], E. Desi (predictors of achievement motivation: self-determination, or personal autonomy, and self-acceptance) [1], H. Schuler (people with pronounced motivation for achievement prefer difficult tasks in order to learn something new and gain experience in the process of solving them) [4–6], and T.O. Gordeeva (people motivated to succeed strive to realize their potential in creativity) [1].

Based on the data of the correlation study, we developed a program of training sessions aimed at increasing the achievement motivation, and tested it on students – psychologists of the Psychology Department of the Ural Federal University. Let 's turn to the results obtained in the course of the forming experiment. Note that there were no significant differences between the experimental and control groups before the formation experiment, in the level of achievement motivation, as well as in the level of expression of its structural components: the transcendent and adaptive component.

TABLE 1: Reliability of the differences between the level of achievement motivation before and after the forming experiment in the experimental and control groups.

Scales	Groups	N Ranks			Temp
		After $<$ Before	After $>$ Before	After $=$ Before	
Achievement motivation by A. Mehrabian	Experimental	2	28	0	**4.50****
	Control	15	13	2	196.00
Transcendence motivation	Experimental	3	27	0	**30.50****
	Control	15	13	2	186.00
Adaptive motivation	Experimental	11	17	2	164.50
	Control	13	15	2	208.00
Achievement motivation according to AMAT	Experimental	3	26	1	**12.50****
	Control	14	15	1	213.00
Note: *Tcrit = 151 ($p \leq 0.05$); **Tcrit = 120 ($p \leq 0.01$).					

Table 1 shows that in the experimental group there are significant differences in the level of achievement motivation, measured both with A. Mehrabian's method and with AMAT method before and after the experiment. The students' achievement motivation in the experimental group significantly increased after the formation experiment. Since we did not find significant differences in the level of achievement motivation in the control group, the growth of prescient motivation in the experimental group can be regarded as the result of exactly the formative training. It is important to note that in the experimental group the level of the transcendent component

of achievement motivation significantly increased, while the level of the adaptive component did not undergo significant changes. That is, the students-psychologists' achievement motivation has increased precisely due to the transcendental component. This is a good indicator. In the study of 2013 we showed that for the most effective training of students-psychologists, it is necessary to pay more attention, namely, to the transcendent component of the achievement motivation. This is due to the fact that students – psychologists with high transcendence motivation are predominantly oriented toward acquiring knowledge and mastering the profession, whereas students with pronounced motivation for adaptation in educational activity are predominantly oriented toward obtaining a diploma, motives for avoidance and prestige [15].

TABLE 2: Reliability of the differences between the experimental and control groups after the formation experiment.

Scales	Average Rank		Temp
	Experimental Group	**Control Group**	
Achievement motivation by A. Mehrabian	36.25	25.00	**285.00****
Transcendence motivation	35.23	25.47	**299.00***
Adaptive motivation	30.68	30.32	444.50
Achievement motivation according to AMAT	34.27	26.73	**337.00***
Note: *Ucrit = 338 ($p \leq 0.05$); **Ucrit = 292 ($p \leq 0.01$).			

As it can be seen from Table 2, after conducting the formative experiment in the level of achievement motivation, measured according to the method of A. Mehrabian and AMAT method, significant differences are observed in the experimental and control groups. In the experimental group, the overall level of achievement motivation and the level of its transcendental component became higher than in the control group.

Let's turn to the analysis of the differences in the degree of significance of individual various values before and after the experiment in the subjects entering the experimental group.

As it can be seen from the table, the importance of values of conformism and own prestige for the group of students has dropped. Probably, the results obtained are related to the fact that students have increased the transcendence motivation, and the values of conformism and prestige, which are primarily related to the adaptive component of achievement motivation, became less important for students than they had before the experiment. The importance of independence and achievements values of has increased, which is explained by the fact that the training was aimed at creating achievement motivation, and within the framework of this training much attention was paid to increasing the students' independence. We note here that in the process of

TABLE 3: Reliability of differences in the degree of significance of personality's various values in the experimental group before and after the formation experiment.

Questionnaire	Value Orientations	N of Ranges			Temp
		After < Before	After > Before	After = Before	
Values questionnaire of Sh. Shvarts	Conformism	17	10	3	**108.50****
	Independence	8	17	5	**94.50****
	Achievements	10	16	4	**92.50****
Terminal values questionnaire of I. Senin	Own prestige	18	10	2	**101.00****
Note: *Tcrit = 151 ($p \leq 0.05$); **Tcrit = 120 ($p \leq 0.01$).					

training we did not set the goals of changing the certain value orientations of students, but rather contributed to students' awareness of their values. We also worked to help students to understand how they realize their values in life, what obstacles they face in the process of translating their values into reality, and through which (personal resources, etc.), these obstacles can be overcome.

4. Conclusion

In conclusion, it should be noted that our study has both theoretical and practical significance. Thus, the data obtained by us about the psychological correlates of the achievement motivation on a personal meaning level broadens the notion of this psychological phenomenon and contributes to its deeper understanding. The experiment we conducted aimed at forming achievement motivation by working with its value-target block showed its effectiveness and can later be used to increase the students' achievement motivation, and can also be tested on another contingent of subjects (work with personnel in the organization, etc.).

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