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An Introduction to the "Psychology of Art" Thematic Section

Cinema as a kind of mass media and as an art form has taken its rightfully significant place in our lives. However, for psychology, cinema remains a "terra incognita" in many respects. In 1979, famous American psychologist J. Gibson lamented that, despite the impressive development of cinema itself, there is virtually no research in the field of psychology of film. Attempts to outline the ways of fundamental understanding and research of cinema were made in psychology by H. M nsterberg, J. Mitry, and N.I. Zhinkin. Beginning in the 1990s, through the active efforts of cognitive psychologists, psychology of film began to develop as a field of systematic scientific research (D. Bordwell, N. Carroll, J.D. Anderson, C. Plantinga, etc.). It is a well-known fact that S.M. Eisenstein collaborated with L.S. Vygotsky and A.R. Luria.

We hope that the proposed selection of articles will stimulate the development and advancement of research in the field of psychology of film, as well as coordinate it. A brief overview of the articles presented.

N.G. Voskresenskaya's research is aimed at studying the features of mechanisms for resolving value conflicts through the choice of films and the subjective perception of favorite film characters. The author described the specifics of the realization of the compensatory function of cinema. V.G. Gryazeva-Dobshinskaya, S.Y. Korobova and Y.A. Dmitrieva address the phenomenon of the cult film and present the results of a study of psychological factors of its perception and impact. In the article by T.A. Kubrak and A.A. Starostina, such a factor of the psychological impact of films as "transportation" — the state of involvement and immersion in the narrative — is presented. The article by M.I. Yanovsky is devoted to the development of a theoretical model of a psychological structure of the virtual world of comedy and the presentation of the results of an empirical study of the impact of a comedy film on viewers.

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The Role of Viewers' Value Conflicts and the Peculiarities of Movie Preferences

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This aim of this research is to clarify the mechanisms of resolving value conflicts of the youth audience according the movies they choose. The study was conducted in the format of a written survey, 210 students of Nizhny Novgorod universities (118 girls and 92 boys, aged 18—22 years) were recruited for the study. The methods used were the author's method of studying movie impressions, the method of the value profile of the personality of S. Schwartz. It was revealed that the preferences are influenced by the viewers' identification with their favorite movie characters, as well as the presence of conflicting motivational formations in the viewers' value system. We picked out the following criteria of film selections, sensitive to the value characteristics of the audience:,the country of origin, dynamics and realism of the narrative. We found out that the characteristics of exclusive and inclusive orientation of discrepancies in the value perception of oneself and of movie characters also play an important role in forming viewers' movie preferences.

Keywords: feature films, movie preferences; movie hero; value orientations, value conflict.

Роль ценностных конфликтов зрителей в особенностях кинопредпочтений

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Данное исследование направлено на прояснение механизмов разрешения ценностных конфликтов молодежной аудитории через выбор кинофильмов. Исследование было построено в формате письменного опроса, выборка — 210 студентов нижегородских вузов (118 девушек и 92 юноши, возраст — 18—22 года). В качестве методов использовалась анкета кинопредпочтений и методика ценностного профиля личности С. Шварца. Выявлено, что на специфику кинопредпочтений оказывают влияние характер соотнесения ценностных профилей зрителей с любимыми киногероями, а также наличие в ценностной структуре зрителей конфликтующих мотивационных образований. Выделены такие критерии киновыборов, чуткие к ценностным особенностям зрителей, как страна производитель, динамические характеристики и реалистичность повествования. В исследуемой выборке выявлена роль эксклюзивной и инклюзивной направленности расхождений в ценностном восприятии себя и киногероев на кинопредпочтения зрителей.

Ключевые слова: игровое кино, киновыбор, киногерой; ценностные ориентации, ценностный конфликт.

Introduction

The problem of influence of cinema on the practices of human development and transformation revealed in the work of L.S. Vygotsky "Psychology of Arts" [7] now acquires special significance and is actively covered in the scientific literature, in particular, as a special way of interaction between the creators of the work and the viewers by understanding other viewpoints and constructing a vision-pattern in the thinking on which actions are based [8]. Feature film has a special role due to its mass impact, which, with the introduction of digital technologies, on the one hand, is increasingly oriented to the tastes of the mass viewer [2], on the other, represents a special form of cognition based on faith and emotional empathy allowing imaginative, mythological interpretation of various phenomena of surrounding reality [9; 16]. With a certain amount of understatement and mystery, feature film stimulates comprehension, understanding and inner acceptance of what is seen confirming the viewer's value positions and influencing them through identification mechanisms with favorite characters [4; 11; 15; 18; 21; 22]. Thus, V.S. Sobkin V.S. and O.S. Markin [15], investigating the peculiarities of the perception of the film "Scarecrow" by R. Bykov, highlighted three models of identification of the viewer with the hero of the artwork: a detached position regarding the collisions and conflicts of the film when the relationship between the characters is perceived as a foreign life; the coincidence of the value changes in the structure of the "I-concept" with the content of the main conflict of the artwork; and, which was much less frequent, the transformation of the structure of the I-concept of the viewer when the value grounds determining the relationship between the I-ideal and the anti-ideal are subject to revision.

In terms of the attention of media researchers are not only film characters with their internal conflicts but also peculiarities of the construction of the plot. This direction in media research is actively developed within the framework of the constructivist approach and procedural rhetoric (which is more focused on the impact of computer games but can also be used in the analysis of films). For example, T.A. Kurbak speculates about a film as an event that manifests itself at the level of organization of images influencing the formation of the discursive reality of the viewer [11], J. Bogost notes that a film, like computer games, can be considered as a huge set of interconnected single operations where the rules and laws of the fictional world of the work and the perception of film characters will be largely determined from the viewers' point of view [19]. Thus, the impact of feature film on viewers can be carried out both through identification mechanisms with film characters and through the film reality within which these film characters function. It shifts the focus of research into the socio-psychological correlates of viewers' perceptions from the analysis of their choices to the analysis of cinematic preferences where the viewer's choice of genres and predisposition to identify with film characters are interrelated. From this point of view, films can be divided into those that focus on the film characters and their internal experi-

ences arising in the process of interaction and on the world which the film characters oppose or, conversely, defend the right to its existence. The majority of foreign blockbusters have received public recognition due to the construction of specific film realities allowing film characters not only to work wonders but also to become carriers of fundamentally new values set by the peculiarities of the world order [6]. The departure of major Hollywood studios in 2022 was a serious blow not only to the Russian film distribution but it also formed a free niche which domestic cinema has not yet been able to fill. This makes research that explores the causes of the psychological attractiveness of virtual worlds particularly relevant. Thus, there are many studies where the role of the socio-psychological characteristics of viewers who choose films with different content, dynamic and emotional characteristics is noted. Studies of the psychological correlates of film choices allow us to speak about the important role of genre characteristics which set the viewer on certain dynamics, level of credibility and emotional direction of film narrative, having a certain readiness to interpret the actions of heroes and the inner acceptance of their life scenarios [4; 5; 11; 25]. It is possible to assume that through film selection the viewers themselves determine in advance by which model film characters will be identified with their values defined by the specifics of the film reality.

With the development of digital technologies, the influence of cinema on the processes of socialization only increases [3, 12]. There is no doubt that teenage and young audiences are vulnerable to the film exposure due to the plasticity of their values. In the process of learning new social roles, watching films becomes not only a way of leisure but also has a compensatory character helping to mitigate sharp, traumatic consequences of socialization and associated value conflicts, to build relations both with your own self and the environment in order to better adapt to it, to make a responsible choice or, on the contrary, to avoid an unpleasant collision with the reality [14].

According to K. Levin, value conflicts are normally considered as a struggle of motives arising in the process of actualization of contradictory or incompatible motives. Their resolution occurs through making a choice or avoiding it, respectively, the feature film can help to achieve the chosen goal or, conversely, becomes one of the ways to avoid solving problems. When studying the role of value conflicts on the viewer's perception, the approach of S. Schwarz deserves special attention as values there are considered to be motivational goals serving as guidelines in life [23]. Schwartz identified ten motivational types that are part of the value structure of the personality which have different meanings for individuals, can conflict with each other, or be compatible. So, openness to changes which includes value orientations united in motivational blocks "Independence" and "Stimulation", may contradict the values of "Security", "Conformity" and "Traditions", and motivational blocks "Power" and "Achievement" directed towards self-elevation may come into conflict with motivational blocks of self-transcendence "Kindness" and "Universalism". The propensity

of men and women alike to perceive the correlations of value compatibility and conflict is proved by numerous cross-cultural studies [17] and figuratively represented in the circular structure of values where compatible values are located together while the conflicting ones are as far apart as possible. The motivational types of values in this scheme can also be divided into inclusive focusing on others and exclusive focusing on oneself [24] which to some extent can be seen as a confrontation of collectivist and individualistic values [13] the role of which in the viewers' perception of feature film is of special interest.

Although the influence of value conflicts on viewers' cinematic preferences is unquestionable, experimental research into this phenomenon is hampered by the genre uncertainty of the feature film (one film may have several genre characteristics) and selectivity of viewer perception (different viewers will pay attention to different aspects of film narrative and character behavior). For example, comedies traditionally lead among the favorite cinema genres in the audience's preferences, but this genre can often be found in combination with a variety of other genres making it difficult to understand the true motives of such a choice. This problem can be solved by the transition from the study of cinematic preferences through genre characteristics and the selection of a limited number of criteria that are important for the study of the specifics of value perception of viewers, namely the producer of the film (domestic or imported, which makes is possible to interpret the created world from the position of "home — alien"), the authenticity of the film work (realism or fantasy as the readiness of the viewer to believe in what is happening on the screen), the dynamics of film narrative (dynamic or slow, regulating the ability of the viewer to deal with the motivation of the actions of film characters, especially when they are ambiguous), and the emotionality of the film work (as the specificity of experiencing pleasure of watching through the opportunity to laugh, feel sadness or be scared).

The purpose of the study is to analyze the role of values and value conflicts in the cinematic preferences of the young audience through the peculiarities of film selection and subjective perception of their favorite film characters.

Hypothesis. Depending on the choice of film, the viewer's perception of the film characters will vary: the viewer may idealize it, see it as a confirmation of own life positions or diminish its value. We assumed that the assessment of film characters will show the peculiarities of value orientation of viewers, the nature of correlation of their value profiles with their favorite film characters as well as the conflicting motivational formations in the value structure of viewers.

Research methodology

The analysis of cinematic preferences was conducted among the students of Nizhny Novgorod universities via a written survey sampling 118 girls and 92 boys aged 18—22 (M=19; SD=1.59). To identify their cinematic preferences, the students were asked to make a choice among nine film characteristics (domestic, foreign, dynamic, calm, fictional, realistic, funny, sad, scary) that were offered in pairs. To study the characteristics of films, the question was: If you want to relax and watch a feature film, what will you choose? You will be offered 35 combinations of pairs. Each time you choose the one which will have a stronger impact on you when choosing a genre". To analyze the value perception, the method of value profile of personality of S. Schwarz was used, which allowed to investigate individual priorities most often manifested in the social behavior of the personality [10]. The respondents were offered forty options. The rating on a seven-point scale was given twice by the viewers, first assessing their favorite film characters and then themselves when offered to answer the following questions: "What qualities do you like in the film characters?" "What qualities are characteristic of you?" Based on the responses, the peculiarities of value profiles of film characters and viewers were determined. To analyze the propensity of viewers to identify with a film character, an index of divergence of viewers' values and their ratings of film characters was used which is calculated as the difference between the value of viewers' positions and the value positions of favorite characters divided by the number of these positions. To statistically process data, the program SPSS 26: descriptive statistics methods, Mann-Whitney U criteria, Pearson X-Square criterion, factor analysis, and Pearson correlation analysis were used.

The results and discussion

As a result of the calculation of the generalized divergence index (M=0.14; SD=0.538), a range of values from −2.30 to 1.58 corresponding to the normal distribution was allocated. This was the reason for the selection of three sub-groups of viewers with different peculiarities of evaluation of film characters (Table. 1). However, the Mann-Whitney U-criterion did not reveal differences in the distribution of indicators by gender and age in the selected subgroups.

The first subgroup (34.8% of the sample, the range of differences for value index (VI) from 0.30 to 1.58) has a higher evaluation of film characters and lower self-esteem than the rest of the sample. The means rank of the value orientations (VOs) is 124.89 versus 95.17 in the rest of the group (p<0.001), while the average rating of the VOs of the viewers is 71.23 versus 123.76 (p<0.001).

The second subgroup (46.2% of the sample, the range of differences for VI is from −0.29 to 0.29) does not significantly differ in their evaluation of the film heroes from the rest of the sample. In this case, the group tends to value themselves more highly than the rest of the sample (115.86 versus 96.61, p<0.05).

The third subgroup (19% of the sample, the range of differences for VI is from −2.30 to −0.30) values the film characters lower (70.00 versus 113.85, p<0.001) and evaluate themselves highly (142.93 versus 96.69, p<0.001).

The analysis of genre preferences showed that the significant film characteristics on which the choice is made include:

T a b l e 1

Differences in the evaluation of value orientations of film characters and viewers compared to other respondents in the subgroups with different indicators of value divergence index (VI)

Selected subgroups	The means rank of the VOs				The range of discrepancy VI
	Film characters		Audience		
	Subgroup	The rest of the group	Subgroup	The rest of the group	
1st subgroup (N=73) Mann—Whitney U	124,89	95,17	71,23	123,76	от 0,30 до 1,58
	Z (−3,376), p<0,001		Z (−5,966), p<0,001		
2st subgroup (N=97) Mann—Whitney U	105,55	105,46	115,86	96,61	от −0,29 до 0,29
	Z (−0,010), p=0,992		Z (−2.289), p<0,022		
3st subgroup (N=40) Mann—Whitney U	70,00	113,85	142,93	96,69	от −2,30 до −0,30
	Z (−4,107), p<0,001		Z (−4,329), p<0,001		

the opportunity to laugh (M=5.06; SD=2.392); foreign production (M=4.82; SD=1.895); a realistic plot (M=4.79; SD=2.171); or a fictional plot (M=4.35; SD=2.440). Statistically significant differences in film selection on emotional criteria (opportunity to laugh, be sad or frightened) in the selected subgroups are not noted (table. 2).

The first subgroup has higher ratings when choosing realistic (M=4.99; SD=2.058, p<0.05) and calm film narration (M=3.90; SD=2.022, p=0.099). The second subgroup tends to prefer foreign filmmakers (M=5.03; SD=1.997, p<0.05) and underestimate domestic cinema (M=2.27; SD=1.890, p<0.05). The third subgroup has higher ratings of the dynamic characteristics of the films (M=4.55; SD=1.934, p<0.001), which puts it in some opposition to the first group in terms of film choices, the latter having lower ratings according to this criterion compared to the other subgroups.

Pearson's correlation analysis revealed the interdependence of the film characters' VOs (M=1.64; SD=0.808) and the viewers' VOs (M=1.43; SD=0.909) at a high level of significance (r=0.604; p<0.01). This applies to all motivational types which does not contradict other studies devoted to the peculiarities of viewers' perception, and is related to the characteristic of viewers' wishful thinking when interpreting actions based on their individual-personal characteristics, especially in ambiguous situations [20].

The distinctive features in the value profiles of favorite characters in the studied subgroups (table 3) were revealed. The first subgroup differs in attaching more importance in the film characters to the values included in the motivational block "Traditions" (M=0.34 versus −0.45 in the rest of the sample, p=0.003), including religiosity of the film character and their desire to follow

T a b l e 2

Specificity of film preferences in different subgroups compared to the rest of the audience

Characteristics of films	1st subgroup (N=73) / the rest of the group (N=137)		2st subgroup (N=97) / the rest of the group (N=113)		3st subgroup (N=40) / the rest of the group (N=170)	
	M	SD	M	SD	M	SD
Domestic production Mann—Whitney U	2,44 / 2,21	1,951 / 1,817	2,27 / 2,31	1,890 / 1,847	2,08 / 2,34	1,639 / 1,913
	Z (−0,658), p=0,511		Z (−1,129), p=0,259		Z (−0,748), p=0,455	
Foreign production Mann—Whitney U	4,77 / 4,85	1,830 / 1,935	5,03 / 4,65	1,997 / 1,792	4,43 / 4,92	1,723 / 1,926
	Z (−0,565), p=0,572		Z (−1,976), p=0,048		Z (−1,824), p=0,068	
Dynamic Mann—Whitney U	3,95 / 4,28	1,674 / 1,822	4,16 / 4,16	1,772 / 1,786	4,55 / 4,07	1,934 / 1,729
	Z (−1,110), p=0,267		Z (−0,687), p=0,492		Z (−2,218), p=0,027	
Calm Mann—Whitney U	3,90 / 3,26	2,022 / 1,868	3,16 / 3,76	1,712 / 2,089	3,50 / 3,48	2,207 / 1,882
	Z (−2,426), p=0,015		Z (−1,767), p=0,077		Z (−0,699), p=0,484	
Fictional Mann—Whitney U	3,99 / 4,55	2,648 / 2,307	4,48 / 4,24	2,301 / 2,557	4,70 / 4,27	2,345 / 2,461
	Z (−1,138), p=0,255		Z (−0,199), p=0,843		Z (−1,128), p=0,260	
Realistic Mann—Whitney U	4,99 / 4,69	2,058 / 2,229	4,56 / 4,99	2,160 / 2,169	5,00 / 4,74	2,386 / 2,121
	Z (−1,984), p=0,047		Z (−1,568), p=0,117		Z (−0,415), p=0,678	
Funny Mann—Whitney U	5,12 / 5,03	2,533 / 2,323	5,10 / 5,03	2,321 / 2,462	4,85 / 5,11	2,348 / 2,407
	Z (−0,615), p=0,538		Z (−0,139), p=0,890		Z (−0,922), p=0,356	
Sad Mann—Whitney U	3,32 / 3,35	2,505 / 2,670	3,26 / 3,41	2,615 / 2,611	3,58 / 3,28	2,818 / 2,561
	Z (−0,109), p=0,913		Z (−0,451), p=0,652		Z (−0,440), p=0,660	
Scary Mann—Whitney U	2,99 / 3,16	2,960 / 3,038	3,33 / 2,90	3,161 / 2,921	2,75 / 3,18	2,880 / 3,072
	Z (−0,464), p=0,643		Z (−1,055), p=0,291		Z (−0,777), p=0,437	

their beliefs (M=0.19 against M=−0.95, p=0.004). Also, the motivational unit "Safety" is highly valued (M=1.03 versus 0.42 in the rest of the sample, p=0.028), in the first place the desire to live in a safe environment and avoid dangers (M=0.31 versus −0.23 in the rest of the sample, p=0.014) and keep things in order and cleanliness (M=1.49 versus 0.91 in the rest of the sample, p=0.021). The viewers of this subgroup tend to rate the characters more highly on the aggregate of statements included in the block "Hedonism" (M=1.71 versus 1.61 in the rest of the sample, p=0.040), although no significant differences on individual value profiles in this block were identified.

The viewers of the first group themselves are characterized by the smaller personal significance of the values included in the motivational blocks "Conformity" (M=0.16 versus 0.78, p=0.029), including their effort to always behave properly (M=−0.23 versus 0.18, p=0.002); "Kindness" (M=1.62 versus 0.62) the ability to forgive (M=0.18 versus 0.83, p=0.009); "Hedonism" (M=1.33 versus 1.76, p<0.01), including the ability to have a good time (M= 1.89 versus 2.16, p=0.009).

Thus, the values of the viewers manifested in the evaluation of themselves and film characters are, on the one hand, in the social focus of their perception of self in the world; on the other hand, are egocentric in character and oriented on deriving pleasure from life where the immediate environment is perceived as an instrument to do so. Low estimates of the values that regulate interaction in groups in the immediate environment are not conducive to trust and are likely to be a source of dissatisfaction with their ability to have a good time. This provokes the need for an ideal identity model that resolves the viewers' internal conflict of enjoying life without particularly contradicting the viewers' own value preferences. A favourite film hero feels safe and comfortable among relatives and friends being able to defend their beliefs. Unhurried narration and realism are the important conditions for the viewers to immerse in the film reality, identify with the film character and act out situations that can be applicable in their lives.

The second group tends to evaluate the values included in the motivational units "Kindness" (M=1.69 versus 1.63, p=0.009) and "Power" (M=0.56 versus 0.44, p=0.044) without emphasizing any specific features. This subgroup does not demonstrate any significant differences in personal value profile, and the peculiarities of the choice are limited to a foreign film producer which, on the one hand, allows to make a very rough pattern of the film hero which is media-specific and including conflicting motivational blocks aimed at personal orientation through domination of people while maintaining good relationships with the loved ones.

The third group tends to underestimate the value characteristics of the heroes in comparison to the rest of the sample. So, there are lower ratings in the group of values of motivational units "Conformity" (M=−0.24 versus 0.46, p=0.017), including avoidance of actions that can cause public condemnation (M=−0.82 versus

T a b l e 3

Significant value orientations (VOs) of film heroes and viewers in different subgroups

Film characters			Audience		
Motivational blocks	**M**	**SD**	**Motivational blocks**	**M**	**SD**
1st subgroup					
Traditions	0,34 / −0,45	1,121/1,366	Conformity	0,16 / 0,78	1,153/1,157
Mann−Whitney U	Z (−4,301), p=0,001		Mann−Whitney U	Z (−3,559), p=0,001	
Hedonism	1,71/1,61	0,814/1,043	Kindness	1,07/1,62	1,060/1,372
Mann−Whitney U	Z (−2,442), p=0,015		Mann−Whitney U	Z (−3,675), p=0,001	
Security	1,03/0,42	0,842/1,236	Hedonism	1,33 / 1,76	1,137/1,075
Mann−Whitney U	Z (−3,450), p=0,001		Mann−Whitney U	Z (−2,505), p=0,004	
2st subgroup					
Kindness	1,69/ 1,63	1,064/1,141	There are no significant differences		
Mann−Whitney U	Z (−1,975), p=0,048				
Power	0,56/0,44	1,347/1,187			
Mann−Whitney U	Z (−1,979), p=0,048				
3st subgroup					
Conformity	−0,24 / 0,46	1,290/1,086	Conformity	1,24 / 0,41	1,364/1,099
Mann−Whitney U	Z (−3,020), p=0,003		Mann−Whitney U	Z (−3,460), p=0,001	
Traditions	−0,87 / −0,01	1,331/1,290	Traditions	0,02 / −0,42	1,476/1,352
Mann−Whitney U	Z (−3,805), p=0,001		Mann−Whitney U	Z (−2,283), p=0,022	
Kindness	1,15 / 1,77	1,122/1,069			
Mann−Whitney U	Z (−3,760), p=0,001				
Hedonism	1,49 / 1,68	1,140/0,924			
Mann−Whitney U	Z (−3,322), p=0,001				
Power	0,48 / 0,50	1450/1,128			
Mann−Whitney U	Z (−3,543), p=0,001				

−0.12, p=0.013) and showing obedience including that to older people (M=0.87 vs 1.39, p=0.020); "Traditions" in the meaning of being religious and following their beliefs (M=−1.15 vs −0.55, p=0.012); "Kindness" (M=1.15 vs. 1.77, p=0.003), including helping others (M=1,42 versus 1,76, p=0,050) and forgiving (M=0,20 versus 1,029, p=0,001). Besides the values regulating group relationships, values that focus on the individual are also downplayed. So, below are the ratings of value of the motivational type "Power" (M=0.48 vs 0.50, p=0.006), including to be rich (M=−0.40 vs 0.18, p=0.009) and "Hedonism" (M=1.49 vs 1.68, p=0.003), including to like "to indulge" oneself (M=0,90 versus 1,34, p=0,046).

When describing their value qualities, on the contrary, there is a tendency to put higher ratings than the rest of the sample, on the values of the motivational units "Conformity" (M=1.24 versus 0.41, p=0.021) and "Traditions" (M=0.025 versus −0.42, p=0.024), including demonstration of obedience (28, M=2.87 versus 1.73, p=0.004) and religiosity (M=−0.17 versus −0.80, p=0.007).

So, the third group is not seeking ideal identification models in films. On the contrary, there is a tendency to underestimate the value of film characters, including those values that are emphasized as more important compared to the rest of the group. The focus on dynamic characteristics when choosing a film does not require any immersion in the inner world of the hero while watching the film, here the actions performed by them are in the focus of attention. The low value of the characters' values makes it possible to observe their risky adventures from a distance, and any empathy with them is superficial.

To emphasize the factors on the index of divergence of values of viewers and their estimation of film characters, the main component method was used as well as the Warimax rotation method with normalization of Kaiser, the rotation converged in 3 iterations (measure of adequacy 0.740, p<0,000). As a result, two types of divergence were identified which differ in the way of self-categorization (table 4).

The inclusive type is associated with divergence in the perception of film characters' values and self-evaluations at the level of group self-categorization. This includes such motivational blocks as "Traditions", "Conformity", "Universalism", "Security", "Kindness", which, according to the hypothesis proposed by Schwartz in 2007, represents a direction that can influence the specificity of interpretations of other values [24]. Our research has shown that the second group are sensitive to discrepancies of this type as the producer country is an important criterion of choice. The part of the subgroup that has a high factor load of this type tends to focus on the foreign country of the manufacturer less than the viewers with lower factor loads (r=−0,266, p<0,01, Pearson). For both groups where they diverge in the evaluation of the values of film characters and viewers' own values, there were no noticeable interconnections between the influence of the inclusive focus and the peculiarities of the film choice.

The exclusive type is associated with differences in the perception of film characters' values and self-evaluation values at the level of individual self-categorization. This includes such motivational units as "Stimulation", "Independence", "Hedonism", "Power", "Achievements". The study found that despite the shift in value differences towards the film hero (1 subgroup) or the viewer themselves (3 subgroup) high factor loads in this direction are negatively connected with the desire of viewers to prefer films with a fictional plot. Consequently, it can be said that the exclusive focus of viewers influences their desire to perceive the film reality as authentic which can be subjective and depends on the viewers' perspective on the person or the world around. Thus, our study of viewers' specificity of perception of realistic and fictional films [5] revealed that those who choose realistic films and reject fictional stories can still prefer films in fantasy or science-fiction genres if the actions unfold in the present and the problems seem to be edifying. On the contrary, fiction is associated with a shift of perspective from the film character to the features of the world order.

Table 4

Significant correlations of the type of divergence between motivational types of values and film choices in subgroups

Factor		Significant criteria in film choices (Spearman)		
		1 subgroup	2 subgroup	3 subgroup
The inclusive type (cumulative 28,08)				
Traditions	0,806	not detected	Foreign production (r=−0,256, p<0,05)	not detected
Conformity	0,756			
Universalism	0,749			
Security	0,742			
Kindness	0,407			
The exclusive type (cumulative 18,38)				
Stimulation	0,736	Fictional (r=−0,233, p<0,05)	Foreign production (r=0,280, p<0,01)	Fictional (r=−0,363, p<0,05)
Independence	0,688			
Hedonism	0,606			
Power	0,558			
Achievements	0,532			

Conclusions

The study revealed the specificity of the relationship between the value orientations of viewers and their cinematic preferences shown in the choice of characteristics of the film work and perception of their favorite film characters. It has been found that viewers tend to evaluate film characters on the basis of the importance of personal values. The correlation between the values of viewers and that of their film characters is quite high ($p<0,001$).

It was discovered that the divergence index of self-evaluation and the evaluation of film characters influences the film preferences. At a low level of divergence of values, the leading criterion of the film selection becomes the country of the producer, and the type of favorite film character can be described as "tyrant in the circle of relatives and friends": the emphasis on significant motivational types "Power" and "Kindness" can generate conflicts in real life but are successfully resolved on screens.

The tendency to overestimate a film character is an important condition for idealizing the character and eagerness to identify with them. In such cases, a calm and thorough film narrative allows a deeper immersion into the world and the problems of the film hero. At the same time, the viewers' choice is determined by the specific features of the value profiles of the viewers themselves, namely the existence of a contradiction between the desire to live to their heart's content and the determination to build friendly relations with their relatives and friends. This type of viewers can be jokingly called "egoist and exemplary family man". The resolution of this conflict in film reality comes due to the appeal of film characters who are able to reconcile their desire to pursue their convictions with the stability and orderliness within the groups that matter to them.

The desire to diminish the value of the characters typical of the third group is related to the viewers' disposition towards films with a dynamic plot which is typical of most action films. The tendency to adhere to norms and traditions in real life causes the desire to immerse into another reality where you can live an alternative life with film characters. T.Adorno [1] linked such film selection to the repression of self-expression which caused the viewer's desire to want to identify with superheroes. At the same time, as our research shows, the mechanisms of the identification with film characters are still not obvious as their value is diminished. These types of viewers can be called "home-seeded-dreamer" while they can separate fantasies and fiction.

The study also indicated the direction of the divergence in the value perception of self and film characters on the features of self-categorization affecting the film preferences of the types of viewers we have selected. Thus, in the second group, the greater focus on group values (inclusiveness) reduces the importance of a film being produced abroad and, on the contrary, increases their attractiveness when divergence in individual values occur (exclusivity). In the first and second groups the expression of exclusivity in the value divergence is manifested in the decrease of interest to fictional film narrative, which may be due to the great attention paid to the authenticity of what is happening to film characters allowing them to be closer and more understandable.

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Psychosemantics of the Character Attraction in the Cult Films and Symbolic-Mythological Contexts of Subject's Identification

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The personalization of art communication provides a situation of openness, that s how cult films as well as psychological studies of this phenomenon appear. The article is dedicated to the study of the psychosemantic structure of the attraction of characters in the cult film "Game of Thrones" in the context of viewer's identification with characters in situations of special art communications. In the study we used a modification of the semantic differential "Attractiveness of film characters" by C. Osgood . 204 people were recruited for this study: 130 people familiar with the series and 74 people not familiar with it. The study revealed the identification of subjects with the characters of the cult film, even if people wasnot quite familiar with them, as well as importance of the attraction factor. The psychosemantic structure of the attraction of the film's main characters is ambivalent, it is simpler and more unambiguous for subjects who feel identified with a certain character, and more complex for subjects who don't. The results of the study are presented in the context of a discussion about the phenomenon of the cult movie.

Keywords: cult film, character attraction, identification, symbolic-mythological contexts.

Психосемантика притягательности персонажей культового фильма и символико-мифологические контексты идентификации субъектов

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Персонализация арт-коммуникации создает ситуацию открытости для возникновения культовых фильмов и психологических исследований этого феномена. Статья посвящена исследованию психосемантической структуры притягательности персонажей культового кино «Игра престолов» в контексте идентификации субъектов с ними и в условиях различий арт-коммуникаций. Использовалась модификация семантического дифференциала Ч. Осгуда «Притягательность персонажей фильма». Выборку составили 204 человека: 130 человек, знакомых с сериалом, и 74 человека, не знакомых с ним. В результате исследования выявлены идентификация субъектов с персонажами культового фильма, даже в условиях ограниченного знакомства с ними, и значимость фактора привлекательности. Психосемантическая структура привлекательности персонажей амбивалентна, является более простой и однозначной у субъектов с идентификацией с персонажем и более сложной у субъектов без идентификации с ним. Результаты исследования обсуждаются в контексте дискуссии о факторах феномена культового кино.

Ключевые слова: культовый фильм, притягательность персонажа, идентификация, символико-мифологические контексты.

Introduction

The intensive development of cinema art through the interaction of digital and aesthetic transformations makes relevant the psychological research of traditionally studied as well as new factors of perception and influence on viewers. Two groups of factors of perception and influence of works in the cultural space remain unchanged: factors of the structure of the work, including symbolic, mythological, and narrative ones, and factors of the properties of subjects mediating artistic perception and impact [4; 5; 8; 9; 10; 11; 20; 21]. The communicative factors, specifics of subjects' interaction with the work in the aesthetic space are studied much less frequently. Information technologies have changed such interactions

[10]. Digitalization of art communications has provided new opportunities for personal choice of films, communication about preferred films, and participation in film promotion. The personalization of interaction between subjects, authors of the films, in the space of contemporary culture polarizes the viewers' positions in relation to films: from "I do not watch at all" to "I watch many times". *The personalization of art communication creates an opportunity for the emergence of various cult films and psychological studies dedicated to this phenomenon.*

Specific characteristics of cult movies are presented by the long-term interest of the significant audience and personal preferences in the choice of films, inclusion in regular communications associated with multiple viewing [8; 9; 15; 16].

The relevance of the study of psychological factors of the sustainable appeal of cult cinema is related both to the special characteristics of personal influences and their sociocultural significance, and the difficulty of predicting such an effect. Cult film characters represent value standards, identification with which provides the basis for self-discovery, self-expression, and personal development. Films oriented towards the wide popularity do not always become cult films, and cult films themselves produce specific influence [8].

It is relevant to study the attraction of cult film characters in the context of viewers' identification with them and selectivity of art communication.

Theoretical foundations and the research aims

Existing researches of psychological factors of perception and influence of films allow to outline the objectives of the study of the attraction of cult film characters.

1. To focus the study on the phenomenon of character *ambivalence* as a factor of aesthetic reactions of viewers, traditionally defined in the psychology of art [3; 12; 20]. Studies have identified the factors of *ambivalence of viewers' experiences, ambivalence of perceived and interpreted symbols of films* [4; 5; 8].

Studies of the perception and influence of the author's art films masterpieces (L. Visconti, F. Fellini, P. Greenaway, A. Tarkovsky), that remain relevant to the audience for a long time and this fact allows us to define them as one of the types of cult films [16], have revealed special effects of the influence of such works — ambivalence of the audience's reflexive experiences up to the effect of "open catastrophe". These effects are caused by "open" structure of the works, the sequential organization of symbols in the films, as well as uncertainty up to the open ending, preserving the mystery of interpretation for the viewers while solving the "problem of the meaning" [4; 5].

Studies of the influence of cult films series, as another type of cult cinema [16], have shown the role of ambivalence of experiences at the reflexive level, multidirectional tendencies of experience and their significant changes, manifested at the psychophysiological level in the process of viewing [8; 9].

2. The key to the emergence of the phenomenon of cult cinema as a long-term attraction of cinema works and persistent actualization of art communication is the *intensity of the effects of its influence*. This characteristic allows to identify both masterpieces of cinema art and film series as mass cinema phenomena [4; 8].

The intensity of the influence of films is related to the perception of ambivalence of characters, symbols of author's films, and correlates with the ambivalence of experiences: from uncertainty to catharsis, or from uncertainty to "incomplete harmonization", to "open catastrophe" [4], which is consistent with the concept of "the open work" [18]. Increased intensity of the influence in cult series is achieved through its provocativeness [8].

The study of the maximization of "highest" and "deepest" levels of experience from the influence of cult films suggests that cult film characters have symbolic, archetypal bases. They are not only perceived by viewers as having ambivalent characteristics, they represent the possibility of understanding one's own unconscious psyche, which is revealed in the process of encountering the cinema work [3; 14].

One of the characteristics of cult film is the creation of spaces and characters with detalization, redundancy [16], which reflects the traditional creation of detailed imaginary spaces in culture — spaces of dreams, illusions, faith [19]. Perhaps, this *cultural redundancy of imaginary, fantastic spaces and characters of cult film* helps realize the human need for an imaginary path to one's own individuality through the processes of multiple identification.

3. Studies of identification with characters, performed within the framework of social learning theory [17], have changed the approach to character creation, actualizing the possibilities of selective, variable identification among viewers. Cult movie characters can be differentiated on the fundamental bases of culture (good-evil), or differentiation can be more subtle, ambiguous, as shown in studies of the structure of identification with the characters of Harry Potter series [9; 24; 25].

The study of viewers' social identity and their identification with the characters of the cult film "Harry Potter" revealed that viewers choose identification with the characters that have similar social identity problems; identification with negative characters includes positive psychosemantics of their images [9].

The study of cinema art films has revealed the focus (sameness) of perception of author-directors and the specifics of identification with them: from "duplication effects", when the director is a guru to be imitated, for example, D. Jarman; to "denial effects" and "transcendence effects", when the director is a provocateur who encourages going beyond the usual, for example, P. Greenaway [5].

The formation of identity in modern culture is considered by psychologists as problematic due to sociocultural changes, the destruction of "grand narratives", value uncertainty, and opportunities for personal choice [1; 2; 13; 23]. *This makes it relevant to study the influence films as cultural phenomena on the processes of identification.*

The studies of identification with cult film characters between those subjects who "have not watched at all" this series and subjects who "have watched it many times" may reveal different identification variants — from "diffuse", "multiple" to "articulated", "dominant".

The aim of the study is to identify the specifics of the psychosemantic structure of character attraction of the cult film "Game of Thrones" in the context of identification with them and in the situation of differing art-communications.

Research design

The psychosemantic structure of the character attraction of the film series "Game of Thrones" and subject's identification with them was investigated using the psychosemantic methodology "Attractiveness of film characters" (a modification of C. Osgood's semantic differential) in the format of Google forms [9].

Methodology involves the assessment of each character as well as the subject's Self on 23 bipolar scales, 17 of which are from the standard Osgood's semantic differential. Six scales were added to study the attraction of character's screen images (Repulsive/Attractive, Sad/Joyful, Ugly/Beautiful, Ordinary/Unusual, Fearful/Safe, Masculine/Feminine).

For the study, the subjects were provided with H. Sloan's official photographs of such popular characters as: Daenerys Targaryen, Jon Snow (Stark), Sansa and Arya Stark, Tyrion, Jaime and Cersei Lannister, Joffrey Baratheon (Lannister). Table 1 presents the characteristics of the characters included in the study, as well as the archetypes they embody according to the works of O. Gavrilova and L. Vecchiola [6; 7].

Data analysis was carried out in the following sequence: for each subject there were separately factorized the evaluations of Self and each of the characters (columns) according to the scales of the semantic differential (rows). As the manifestation of identification there was considered the inclusion of characters in the same factor with the subject's Self. The subjects could identify themselves with more than one character or with none of the characters.

The results of the study were analyzed in four stages.

1. Calculating the structure of identification with characters, both for the whole sample of subjects and in groups differentiated by their familiarity with the series, by using factor analysis. The loadings in the factor that included the subject's Self, calculated previously for each individual subject, were used as variables.

2. Determining the frequency of viewers' identification with characters in the series and forming groups based on the presence of identification with a particular character. Each subject could fit into more than one identification group.

3. Comparing the ratings of the most popular characters for identification on semantic differential scales between three groups of subjects: group of those previously not familiar with the series, and groups of those who identify or not identify with a particular character, by using the Kruskal-Wallise H test.

4. Analyzing the psychosemantic structure of attraction of the most popular for identification characters among three groups of subjects: group of those previously not familiar with the series, and groups of those who identify or not identify themselves with a particular character, by means of factor analysis. As the structure of

the character attraction, we choose the factor containing the indicator "Repulsive/Attractive".

Kruskal-Wallise H test and factor analysis using varimax rotation were used for statistical processing of the data. Principal component method with eigenvalue higher than 1 was used to limit the number of factors.

The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett's sphericity test for the sample as a whole and all individual groups of subjects ranged from 0.576 to 0.805 (0.487 only for the group of subjects previously not familiar with the series) and from 60.3 (p ≤ 0.01) to 1,068.9 (p ≤ 0.000), respectively, indicating the adequacy of applying the factor analysis procedure to acquired data of psychological diagnostics.

Tables 2, 5—7 present the values of factor loadings. The calculations were performed using IBM SPSS Statistics.

The study sample consisted of 204 people differentiated according to their perception of "Game of Thrones": 130 people familiar with the series (62 men and 65 women, mean age −21.7±4.1) and 74 people not familiar with it (50 men and 24 women, mean age −20.8±3.8).

Results

1. Analysis of the structure of identification with characters for different viewer groups

The structure of identification with the characters was obtained using factor analysis as the structure of the psychosemantic space of the characters on the whole sample and in groups of subjects previously familiar or not familiar with the series (Table 2). The matrix for calculating the factor analysis included factor loadings of Self and all of the characters (columns) for each individual viewer (rows).

For the entire sample of subjects, the structure of the psychosemantic space of characters is represented by three factors: a bipolar factor including the subject's Self and two positive characters opposed by two negative characters, and factors uniting male and female characters separately.

For the group of subjects previously unfamiliar with the series, the structure of the psychosemantic space of the characters is the most differentiated and consists of four factors. The first factor includes the opposition of the subject's Self to the negative character. The second bipolar factor unites ambivalent characters and represents the relations of two groups — two male charac-

Table 1

Description of the characters included in the study

Ruling house	Character	Gender	Characteristics	Archetype
Targaryen	*Daenerys*	Female	Positive	Persona, Great Mother
Stark	*Jon Snow*	Male		Divine Chile, Hero
	Sansa	Female		Maiden, Beautiful Lady
	Arya	Female		Warrior
Lannister	*Tyrion*	Male	Ambivalent	Divine Child, Trickster
	Jaime	Male		Knight
	Cersei	Female	Negative	Terrible Mother
	Joffrey	Male		Shadow

ters are opposed to a female character. The third factor is formed by female characters on the basis of external similarity. The fourth factor combines positive characters whose narrative involves death and rebirth.

In the group of subjects previously familiar with the series, the structure of the psychosemantic space of the characters is the simplest and consists of two factors. The structure of the factor that includes subject's Self repeats the structure of the Self factor in the entire sample and is additionally supplemented by an ambivalent male character. The structure of the Self factor of subjects previously familiar with the series includes the largest number of characters, their identification structure being the most enriched. The second factor includes the remaining characters without differentiation.

2. Analysis of the frequency of viewer's identification with the characters

Based on the data on subject's identification with the characters of the series, the frequency of identification was calculated. Since a subject may no identification with any of the characters, 3 people (4.1%) previously unfamiliar with the series and 9 people (6.9%) previously familiar with the series were excluded from further analysis.

For the group of subjects previously familiar with the series, there was determined the identification frequency with each character (Table 3).

The 6 characters most popular for identification were used in the further study: Daenerys, Jon Snow, Sansa, Arya, Tyrion, Jaime. Based on the absence or presence of identification with each of them, the sample was divided into 2 subgroups for each individual character: with Daenerys, 59 and 62 subjects, respectively; with Jon Snow, 45 and 76 subjects; with Sansa, 56 and 65 subjects; with Arya, 53 and 68 subjects; with Tyrion, 59 and 62 subjects; and with Jaime, 67 and 54 subjects.

Thus, both in the groups of subjects previously unfamiliar and familiar with the series, identification with the characters of the series is observed. The images of the characters in the series are thoroughly elaborate, causing subjects to identify themselves with them. There is a minimum number of identifications of subjects with negative characters, while positive and ambivalent characters are more attractive for being identified with them.

3. Comparison of psychosemantic characteristics of characters between different groups of subjects

Based on the scores on the semantic differential scales for each character, psychosemantic evaluations

Table 2

The structure of identification with the characters of the film series "Game of Thrones"

Characters	Entire sample (n = 204)			Subjects not familiar with the series (n = 74)				Subjects familiar with the series (n = 130)	
	1	**2**	**3**	**1**	**2**	**3**	**4**	**1**	**2**
Self	0,6			0,8				0,6	
Daenerys			0,8				0,6		0,8
Jon Snow	0,6	0,5					0,9	0,7	0,4
Sansa	0,6					0,6		0,6	
Arya			0,7	−0,7					0,8
Tyrion		0,8			0,7			0,4	0,6
Jaime		0,8			0,6				0,7
Cersei	−0,7		0,5			0,8		−0,8	
Joffrey	−0,8			−0,9				−0,8	
% of dispersion	30,8	16,3	12,6	19,9	17,3	13,8	11,8	37,3	20,6
KMO	0,677			0,487				0,747	
Bartlett's sphericity test	344,9***			60,3**				376,2***	

Note: «*» — p<0,05; «**» — p<0,01; «***» — p<0,001.

Table 3

Frequency of identification with characters in a group of subjects, previously familiar with the series

Characters	Subjects familiar with the series	
	Without identification	**With identification**
Daenerys	59	62
Jon Snow	45	76
Sansa	56	65
Arya	53	68
Tyrion	59	62
Jaime	67	54
Cersei	102	19
Joffrey	116	5

were compared using the Kruskal-Wallace H test among three groups of subjects: those not previously familiar with the series (NF), those not identifying themselves with a particular character (I-), and those identifying themselves with the same character (I+). The results of the comparative analysis of psychosemantic evaluations, significant for all characters, are presented in Table 4.

Significant differences in the evaluation of characters on the semantic differential scales were revealed between groups of subjects depending on their familiarity with the series and the presence of identification with the characters. These differences were found in the evaluation of all of the analyzed characters and are characterized by presence of ambivalence in identification with them.

Subjects with identification significantly higher evaluate the attraction of those characters with whom

they identify themselves on the scale "Repulsive/Attractive". They rate them significantly higher on the "Bad/Good", "Hated/Loved", and "Ugly/Beautiful" dimensions.

The evaluations of the subjects who identify themselves with the characters on the indicators "Dark/Light", "False/Truthful", "Strange/Native", "Evil/Kind", and "Foolish/Wise" are significantly lower than in the groups of subjects who are not familiar with the series and do not identify themselves with a particular character.

Thus, identification with the characters of the cult film implies their bigger attraction for the subjects, as well as ambivalence in the perception of their image. Subjects perceive the characters with whom they identify themselves as attractive, beautiful, beloved and yet dark, false, strange, evil and foolish.

T a b l e 4

A comparison of the psychosemantics of the characters

Scales	Group	Characters					
		Daenerys	Jon Snow	Sansa	Arya	Tyrion	Jaime
Repilsive/ Attractive	NF	93,9	65,3	85,4	67,7	65,2	71,5
	I—	87,4	102,8	98,7	99,7	105,2	100,3
	I+	**114,8**	**129,0**	**113,1**	**132,1**	**132,7**	**130,9**
	H$_{emp}$	8,7**	50,6***	8,8*	47,2***	50,6***	36,5***
Dark/Light	NF	84,9	129,9	119,1	100,4	120,5	104,8
	I—	120,5	99,8	103,8	115,0	109,9	106,1
	I+	**92,8**	**68,8**	**70,7**	**84,3**	**62,7**	**78,6**
	H$_{emp}$	14,4***	44,8***	26,8***	9,3**	39,0***	9,1*
False/Faithful	NF	111,1	126,1	109,8	105,4	111,7	96,5
	I—	103,1	98,5	115,5	117,7	114,2	109,1
	I+	**79,2**	**73,4**	**70,7**	**76,8**	**68,8**	**86,1**
	H$_{emp}$	11,5**	34,4***	24,3***	17,8***	26,3***	5,2
Bad/Good	NF	96,1	57,1	75,0	87,3	76,7	90,0
	I—	83,5	119,4	90,3	93,6	90,3	87,9
	I+	**116,1**	**126,4**	**132,2**	**116,1**	**133,9**	**121,5**
	H$_{emp}$	10,9**	69,2***	38,2***	10,2**	37,8***	13,7***
Strange/Native	NF	93,9	126,0	111,1	115,2	116,2	116,1
	I—	126,4	102,9	107,5	109,8	109,3	104,5
	I+	**76,4**	**70,6**	**76,3**	**72,7**	**68,5**	**65,4**
	H$_{emp}$	25,7***	36,6***	15,6***	23,3***	27,4***	27,9***
Evil/Kind	NF	99,3	127,3	112,9	105,2	119,0	109,9
	I—	110,8	99,9	107,4	109,7	114,2	110,2
	I+	**85,4**	**71,3**	**74,4**	**83,6**	**60,2**	**66,5**
	H$_{emp}$	6,45*	38,14***	18,49***	8,05*	43,66***	24,27***
Hated/Loved	NF	90,5	65,7	83,8	72,0	71,2	80,8
	I—	81,3	99,1	90,0	99,5	96,8	89,5
	I+	**124,9**	**131,0**	**122,6**	**127,5**	**134,0**	**132,0**
	H$_{эмп}$	21,4***	51,2***	19,1***	35,1***	42,6***	29,8***
Foolish/Wise	NF	100,3	97,3	103,3	117,8	132,3	102,1
	I—	113,9	127,0	114,6	105,0	99,1	115,6
	I+	**81,3**	**83,0**	**78,8**	**73,9**	**59,7**	**70,3**
	H$_{emp}$	10,8**	18,3***	13,6***	22,7***	60,2***	20,8***

Scales	Group	Characters					
		Daenerys	**Jon Snow**	**Sansa**	**Arya**	**Tyrion**	**Jaime**
Ugly/Beautiful	NF	85,7	72,9	81,1	75,5	84,4	69,9
	I—	95,5	100,8	94,1	94,8	101,8	102,5
	I+	**116,5**	**122,9**	**121,9**	**127,7**	**115,3**	**130,3**
	H_{emp}	12,9**	31,1***	20,8***	30,9***	10,3**	38,2***

Note: NF — group of subjects, previously unfamiliar with the series; I— — group of subjects, who don't identify themselves with a character; I+ — group of subjects, who identify themselves with a character; «*» — p<0,05; «**» — p<0,01; «***» — p<0,001.

4. Psychosemantic structure of character attraction of different groups of subjects

Based on the scores on the semantic differential scales for each character, the psychosemantic structure was analyzed using factor analysis for three groups of subjects: those not previously familiar with the series, and those identifying and not identifying themselves with a particular character (Tables 5—7).

The psychosemantic structure of each character's attraction is represented by a factor that includes the "Repulsive/Attractive" indicator.

The psychosemantic structure of character attraction for subjects not previously familiar with the series is simple — monopolar and single-factor (except for the character of Sansa). For all characters, the attraction factor includes author scale "Ugly/Beautiful". For all characters, except for the ambivalent character Jaime, the attractivon structure is supplemented by the standard scale "Hated/Loved" and the author scale "Fearful/Safe". For all positive characters, the structure of attraction includes the standard scales "Bad/Good" and "Dirty/Clean".

Subjects who do not identify themselves with specific characters revealed the most complex char-acter attraction structure. For all characters, except for the positive character of Jon Snow, the structure of attraction is bipolar, and for three characters out of six it is bifactorial. For almost all characters, the attraction factor includes the author's scale "Ugly/Beautiful" (except Jaime), the author's scales "Bad/Good" and "Hated/Loved" (except Tyrion); and the author's scale "Cowardly/Daring" (except Sansa). Almost all characters have the "Repulsive/Attractive" scale opposed to the "Strange/Native" scale (except Daenerys). Other scales in the structure of character attraction are specific.

For subjects who identify themselves with specific characters, the psychosemantic structure of character attraction is the simplest and most single-factor and unipolar for most characters, except for the positive character of Jon Snow and the ambivalent character of Tyrion. For all characters, the attraction factor includes the author's scale "Ugly/Beautiful". For four out of the six characters, the attraction factor includes the "Hated/Loved" scale (except for characters embodying the Divine Child archetype). Other scales in the structure of character attraction are specific.

Table 5

The structure of character attraction in a group of subjects, previously unfamiliar with the series

Scales	The structure of character attraction						
	Daenerys (n = 71)	**Jon Snow (n = 71)**	**Sansa (n = 71)**		**Arya (n = 71)**	**Tyrion (n = 71)**	**Jaime (n = 71)**
	1	2	2	6	1	4	3
Repulsive/Attractive	0,7	0,8	0,5	0,5	0,7	0,8	0,8
Passive/Active	0,5				0,4		0,8
Chaotic/Organised	0,7		0,5		0,6		0,8
Bad/Good	0,8	0,6	0,6		0,5		
Slow/Fast					0,4		
Miserable/Lively					0,5	0,4	
Hated/Loved	0,7	0,7	0,5		0,8	0,4	
Dirty/Clean	0,7	0,6	0,8		0,8		
Sad/Joyful				0,7			
Ugly/Beautiful	0,6	0,7	0,8		0,7	0,8	0,6
Fearful/Safe	0,7	0,7	0,8		0,7	0,4	
Masculine/Feminine				-0,5			
% of dispersion	27,8	17,4	14,2	4,9	34,7	7,3	12,1
KMO	0,753	0,638	0,631		0,797	0,737	0,721
Bartlett's sphericity test	835,1***	784,5***	872,5***		965,4***	889,8***	1068,9***

Note: "*" — p<0,05; "**" — p<0,01; "***" — p<0,001; 1, 2, 3, 4, 6 — factor numbers.

Discussion

Cult films offer to the viewer a wide range of characters as options for identification, with careful construction of images, their standardization, their external attractiveness, precise embodiment of archetypal ambivalence and appeal. Even a brief presentation of photographic images of the characters acts as a sufficient basis for identification with them and recognition of the myth they embody. The psychosemantic space of the characters shows that subjects use universal cultural indicators (good-evil) to differentiate them. The results do confirm the characteristic of cult films discussed by researchers — "standardization", "templateness", "stereotypicality" [16; 19].

Psychosemantic analysis shows that stereotypes of cult film characters' characteristics go back to the fundamental oppositions of culture; moreover, they appear in an attractive multi variant diversity. Characters with whom viewers identify themselves are perceived by them as more appealing, with not only their positive aspects

Table 6

The structure of character attraction in groups of subjects without identification with a specific character

Scales	Without identification with a character								
	Daenerys (n = 59)		Jon Snow (n = 45)	Sansa (n = 56)	Arya (n = 53)		Tyrion (n = 59)	Jaime (n = 67)	
	2	5	2	2	1	2	2	1	3
Repulsive/Attractive	0,5	0,6	0,8	0,7	−0,5	0,7	0,8	−0,4	0,6
Weak/Strong					0,9				
Dark/Light					0,4				
Passive/Active	0,8					0,8			0,8
Chaotic/Organised		0,8							
False/Truthful					0,6				
Bad/Good		0,4	0,8	0,6		0,5		−0,4	
Tense/Relaxed		−0,5							
Cowardly/Daring	0,6		0,8			0,9	0,5		0,7
Strange/Native				−0,5	0,8		−0,5	0,8	
Slow/Fast	0,8					0,8			0,8
Evil/Kind					0,8			0,7	
Hated/Loved	0,4		0,7	0,7	−0,4	0,7		−0,8	
Foolish/Wise				−0,5	0,8				
Dirty/Clean			0,6	0,8					
Ugly/Beautiful	0,6		0,8	0,8		0,7	0,7		
Ordinary/Unusual					0,7				
Fearful/Safe		0,4	0,6	0,5					
Masculine/Feminine					−0,5		0,4		
% of dispersion	13,8	5,8	13,4	12,1	28,4	11,4	9,5	21,9	9,8
KMO	0,684		0,805	0,731	0,757		0,586	0,576	
Bartlett's sphericity test	759,1***		1039,9***	766,9***	724,2***		591,7***	537,2***	

Note: "*" — p < 0,05; "**" — p<0,01; "***" — p<0,001; 1, 2, 3, 5 — factor numbers.

Table 7

The structure of character attraction in a group of subjects who have identification with specific characters

Scales	Identification with a character					
	Daenerys (n = 62)	Jon Snow (n = 76)	Sansa (n = 65)	Arya (n = 68)	Tyrion (n = 62)	Jaime (n = 54)
	1	2	2	3	3	3
Repulsive/Attractive	0,7	−0,6	0,7	0,8	0,7	0,9
Passive/Active	0,7					
Bad/Good			0,7			
Simple/Complex		0,5				
Cowardly/Daring	0,8		0,5			0,5
Slow/Fast	0,6					
Hated/Loved	0,5		0,8	0,7		0,7
Foolish/Wise		0,6				

Scales	Identification with a character					
	Daenerys (n = 62)	Jon Snow (n = 76)	Sansa (n = 65)	Arya (n = 68)	Tyrion (n = 62)	Jaime (n = 54)
	1	2	2	3	3	3
Dirty/Clean			0,6	0,4		
Sad/Joyful		0,6			−0,5	
Ugly/Beautiful	0,8	−0,4	0,7	0,7	0,7	0,8
Ordinary/Unusual		0,8				
Fearful/Safe					−0,5	
% of dispersion	17,6	15,9	14,4	10,5	8,5	12,2
KMO	0,580	0,629	0,582	0,605	0,651	0,618
Bartlett's sphericity test	591,7***	650,5***	557,4***	580,5***	713,0***	673,8***

Note: "***" — p<0,001; 1, 2, 3 — factor numbers.

but also ambivalent ones being reflexed. Viewers perceive the characters with whom they identify themselves as simultaneously appealing, beautiful, and beloved and yet dark, false, strange, evil, and foolish. Identification with a character includes perceiving them as strange rather than native, as false, keeping secrets, which maintains interest in them. The reflection of ambivalent characteristics of characters can also be a consequence of the phenomenon of assumed similarity, bestowing the character with traits similar to one's own [26].

It is important to note that the psychosemantic structure of character attraction reflects subject's perception of their external characteristics, external attractiveness. External attractiveness, in combination with identification with the character, can serve as a foundation for the construction of romantic parasocial relationships, when the fictional character is perceived not only as a close friend, but also as a suitable romantic partner [22].

Identification with a character leads to subjective simplification of their images, highlighting the main characteristics. Getting to know characters without identifying with them leads to the identification of objectively higher number attributes related to attraction. These data are consistent with the results of other studies [26], where it is shown that viewers develop simplified versions of the personality of fictional characters to facilitate easier correlating of them with themselves and identification.

Thus, a dynamic balance is formed in the psychosemantic structure of cult film characters — the interaction between the attractive stereotypical simplicity of personal identity and the attractive excessive complexity of existing alienated others, which prolongs interest in the work itself and its repeated viewings.

It seems promising to continue the study of the attraction of cult film characters in the context of personal characteristics of viewers, as well as analysis of the gender specifics of character attraction.

Conclusions

1. Positive and ambivalent characters are more likely to encourage subjects to identify themselves with them. Characters that carry negative semantics are less likely to evoke a desire in subjects to identify themselves with them.

2. Identification with cult movie characters is accompanied by their stronger attraction from subjects. Film characters, even positive ones, are perceived by subjects as having certain ambivalent characteristics.

3. The psychosemantic structure of character attraction reflects subject's perception of their external characteristics, external attractiveness. Identification with a character leads to subjective simplification of their image, highlighting the main characteristics. Familiarization with characters without identification with them leads to the identification of objectively higher number attributes related to attraction.

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Narrative Transportation as a Factor of Psychological Impact of the Movie

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The article presents an approach to studying the psychological impact of cinema in the context of narrative influence. The theory of transportation developed by M. Green and T. Brock (Transportation Theory) and the concept of transportation introduced by them as a special state of involvement and immersion in a narrative. It helps to enhance the psychological impact and can lead to a change in a person's beliefs related to the content of the narrative. There are two main groups of factors, which determine the level of narrative transportation: the quality of the narrative and the individual psychological characteristics of the recipient. The empirical study conducted on 1171 university students aged 17 to 29 years (49,3% men and 50,7% women; M=19,8, SD=1,9) showed that the level of narrative transportation differs depending on gender, which may be due to the greater proximity of a particular film to a certain audience. The sudy revealed a connection between transportation, empathy, as well as , openness to experience and extraversion. Empathy was the most significant predictor of transportation. The feedback of the respondents with high and low levels of transportation helped us to identify the characteristics of transportable narratives. Among them were that the film had an idea, the importance and relevance of the problems posed, a potential impact, as well as the plot of the film, its logic and dynamism, the realism of what was shown, and the attractiveness of the story itself.

Keywords: psychology of film, psychological impact of film, narrative transportation, Transportation Theory, narrative.

Нарративная транспортация как фактор психологического воздействия кино

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В статье представлен подход к изучению психологического воздействия кино в контексте нарративного воздействия. Рассматривается теория транспортации, разработанная М. Грин и Т. Броком (Transportation Theory), и введенное ими понятие транспортации как особого состояния вовлеченно-

сти и погруженности в нарратив, которое способствует усилению его психологического воздействия и может привести к изменению связанных с содержанием нарратива убеждений человека. Выделяются две основные группы факторов, определяющих уровень нарративной транспортации при просмотре фильма: качество самого нарратива и индивидуально-психологические характеристики субъекта. Эмпирическое исследование, проведенное на выборке из 1171 студентов от 17 до 29 лет (49,3% мужчин и 50,7% женщин), выявило половые различия в выраженности нарративной транспортации, что могло быть обусловлено б льшей близостью конкретного фильма к определенной аудитории. Обнаружена связь транспортации с эмпатией, а также с такими чертами личности, как открытость опыту и экстраверсия. Эмпатия явилась наиболее значимым предиктором транспортации. В результате анализа высказываний о фильме респондентов с высокими и низкими значениями уровня транспортации выделены характеристики транспортабельных нарративов: наличие смысла в фильме, важность и актуальность поставленных проблем, потенциал воздействия, а также сюжет фильма, его логичность и динамичность, реалистичность показанного и привлекательность самой истории.

Ключевые слова: психология кино, психологическое воздействие кино, нарративная транспортация, теория транспортации, нарратив.

Introduction

The psychology of film in modern psychological science has become a separate field of research, which has gained new significance in the context of an actively developing information society [2]. Studies in this area are also being conducted in Russian science, involving a fairly wide range of issues [1; 7, etc.]. At the same time, it should be noted that such works are still insufficient, there is a lack of general approaches to conducting psychological studies of films, the absence of special psychometric tools that allow to determine and evaluate the factors of the effectiveness of their impact.

When considering foreign studies, it is found that the problem of psychological impact of films is examined in the context of narrative influence. Narrative is defined as "... a representation of connected events and characters that has an identifiable structure, is bounded in space and time, and contains implicit or explicit messages about the topic being addressed " [19]. It is stated that narrative influence is more effective than rhetorical influence because it reduces distrust of the information received, increases emotional involvement and personal engagement with the story presented, which lead to greater realism of what is perceived [14]. Immersed in the narrative, a person may not notice a change in his or her beliefs or not connect their cause with the source of influence, i. e. the narrative itself [16].

Narrative transportation and its features

The Transportation Theory developed by American researchers M. Green and T. Brock states that the extent of a person's immersion in a narrative correlates with the effectiveness of its influence on a person's beliefs, regardless of whether the events presented in the narrative are fictional or real [15]. The concept of transportation is used to describe a special state of immersion of a person in a narrative, including emotional and cognitive reactions to its content [15]. In the state of transposition, firstly, there is a lack of awareness of surroundings, disengagement from the real world in favour of the narrative world. Second, transportation can trigger the experience of strong emotions, even when it is known that the events presented are unrealistic. Thirdly, the experience of transportation can lead to changes in beliefs associated with the story and the behaviour that correspond to them. Transportation has common characteristics with flow, engagement, presence, immersion, and identification that describe narrative experience [23].

Along with the theory, an appropriate psychometric instrument measuring the level of transportation, the Transportation Scale (TS), was developed. Three aspects of transportation (cognitive, emotional, and imagery) were identified, which made up the overall transportation score, reflecting the holistic experience of immersion in a narrative. The Russian version of the Narrative Transport Scale was tested in 2023 [3].

The first studies within the Transportation Theory were conducted using textual materials [15], and later audiovisual products were also used [14]. Despite the fact that the key psychological components of transportation are preserved regardless of the modality of the stimulus material [17], different types of narratives have their own specifics. Thus, narrative transportation in TV and film production has its own distinctive features, representing a more complex process defined by dual modality [11].

Manipulation of experimental conditions and stimulus material in transportation studies

Over the past decades, many studies have been conducted to identify factors that influence the level of transportation to audiovisual production. For example, manipulations of experimental conditions and stimulus

material have been carried out [25]. It has been shown that interrupting viewing significantly reduced the level of transportation [16]. A positive review of the film enhanced it [10], while presenting the film as fictional or based on real events had no effect [13]. Revealing the plot prematurely also had no effect on the level of transportation [18]. A formal characteristic such as screen size had no effect on transportation [8]; however, viewing frequency, namely "binge watching", could impair it [26].

Manipulations of the narrative itself also had an impact on the level of transportation. Thus, the removal of logically key scenes and some emotional episodes from the film led to a decrease in the level of transportation [25]. The significance of the story's structure and the place of events in it were noted, at the same time the importance of the absence of contradictions with the knowledge of the real world or the rules of the fictional world, which could interrupt the feeling of immersion in the story and cause a sceptical attitude to it [17].

In general, it was found that although some external manipulations influenced the level of transportation, they had a small and diverse effect [25]. The strongest determinant of transportation was the quality of the narrative [16; 17].

Characteristics of qualitative narratives

The assessment of narrative is a complex research task, nevertheless, in accordance with the ideas about narrative and based on the analysis of accumulated data on transportation, the main components determining its quality are identified: sequence, characters, structure, bounded in space and time (chronotope), and production techniques [19].

The sequence implies: *coherence* of events for easier comprehension; *development of the plot* through the culmination to the denouement to enhance emotional and cognitive involvement; *correspondence to psychological models* of characters' actions to create a sense of reality of what is happening.

Characters are defined by: *development*, understandable motives and emotions to identify with them and increase emotional and cognitive engagement; *eloquence*, clarity of expression to hold attention, facilitate information processing and understanding of meaning; *intensity and variety of emotions* to increase emotional engagement and personal significance of the story.

The structure includes: *dramatic tension, suspense* to increase emotional and cognitive involvement; *breaking the canon*, unpredictable plot twists to attract attention and increase cognitive involvement, to form a new view of what is happening.

The chronotope is characterised by: *realism* of situations and characters to enhance identification with them and increase trust in what is being seen; *familiar images* and symbols to remind previous experience and facilitate perception of what is being seen; *correspondence to the cultural specifics* of the audience to increase identification, facilitate comprehension of the plot and enhance the sense of reality.

Production techniques includes lighting, editing, sound, etc., which can be used to manage the attention of the audience and increase the visual appeal of the story, as well as make the characters more intimate and appealing.

Not all characteristics have been sufficiently studied at the moment, so determining the contribution of each of them to the quality of the narrative is a relevant task for new research [16; 19]. Nevertheless, summarising what has been said above with reference to empirical research, we can outline the key criteria of transportable narratives: coherence of the story, character development, emotional intensity of the plot, dramatic tension, and psychological realism [17].

Connection of transportation with individual characteristics

It is believed that the state of narrative transportation is universal and is experienced by all people when engaging in narratives, but the intensity of this experience may be determined by individual differences.

Studies of the relationship between the level of transportation and gender have shown that there are no significant sex differences in narrative transportation [15; 17; 24], although there is evidence that men are more attracted to some stories and women to others [15].

There are many studies on the relationship between transportation and the need for cognition [15; 20, etc.]. Although it is most often weak or absent [15], it has been found that a high level of transportation to serious film is associated with a higher need for cognition [21]. Stronger transportation and more pronounced narrative persuasion effects have been found among people with a high need for affect [9], as well as those prone to fantasy [20]. The links between narrative transportation and empathy are being explored in the ongoing research [24].

Recently, researchers have begun to study the connections between narrative transportation and media engagement with personality traits. A number of studies have found contradictory data on the presence of correlations between neurotism and transportation [20; 22]. Positive correlations of transportability with such personality traits as openness to experience, agreeableness, and extraversion have been found [20]. However, the data obtained are still insufficient to assess the contribution of personality traits to narrative transportation in a general way.

To summarise the review of narrative transportation studies, we can conclude that the obtained data reveal two main groups of factors that determine the level of transportation during viewing a film. One of them relates to the quality of the narrative itself, while the other includes individual psychological characteristics of a person. Due to the fact that the issues raised in the works on narrative transportation are still open and such studies have not been conducted on a Russian-speaking sample so far, *the aim* of this paper was to analyse the factors of narrative transportation of viewers while watching a film using the Russian version of the Narrative Transportation Scale [3]. The goal was to

solve the following *tasks*: to determine the relationship between individual psychological characteristics of a person and the level of his or her narrative transportation; to identify the characteristics of transportable narratives.

Method

Participants

A total of 1171 individuals participated in the study: university students (49.3% male and 50.7% female). The average age was 20 (M = 19.8, standard deviation SD = 1.9).

Participants were recruited at no-cost through various social media and online platforms of the universities. All respondents gave informed consent for their voluntary and anonymous participation in the study.

Measures

Transportation Scale [3; 15]; Emotional Empathic Tendency Scale [5]; Need for Cognition Scale [6; 12]; Big Five Inventory-2 (BFI-2-XS) [4].

To assess the attractiveness of the film, respondents answered the question of how much they liked the film shown on a 6-point scale from "did not like it at all" to "liked it very much".

Procedure

The study was conducted in an online format. Respondents watched the film used as a stimulus material and immediately after watching the film they completed the questionnaires.

To evaluate sex differences in the level of transportation, independent two-sample t-test was used. Multiple regression analysis was used to determine the relationships between the dependent variable (narrative transportation) and independent variables (individual psychological characteristics). Data processing was carried out using the statistical software package IBM SPSS Statistics 23.

Results and discussion

A comparative analysis of narrative transportation between males and females was carried out. It was found that when watching the same film, narrative transportation of women is significantly greater (Table 1).

Our findings differ from those of earlier studies, which found no significant gender differences in narrative transportation [15; 17; 24, etc.]. This result may be explained by the effect of the greater proximity of a particular film to a certain audience, making a narrative more transportable to them [15]. In our study, the greater transportation among women is probably due to the fact that the protagonist of the film is also a woman, which may lead to a stronger identification with her by the female part of the audience; the story is also told from a female point of view, further increasing the immersion in the narrative. The divergent research findings may support notions of the influence of the features of the narrative on the level of transportation. In this regard, it is prospective to study the relationship between identification and narrative transportation, which, however, is currently difficult due to the lack of a Russian-language questionnaire to measure viewers' identification with film characters.

Multiple regression analysis was conducted to analyse the relationships between narrative transportation and individual psychological characteristics. The dependent variable was the level of transportation, while the independent variables were gender, personality traits (extraversion, agreeableness, conscientiousness, negative emotionality, open-mindedness), level of empathy and need for cognition.

According to the regression analysis, both gender and such psychological characteristics as empathy and personality traits as extraversion and open-mindedness turned out to be predictors of narrative transportation (Table 2).

The level of empathy was found to be the most significant predictor of transportation. This is probably due to the fact that empathy increases emotional response to what is seen and leads to higher levels of transportation to the narrative. It has been claimed that a greater propensity for empathy may directly influence the transportation [20; 24]. There is no correlation with need for cognition found. Despite the existing findings that cognitively prone people are more motivated to pay more attention to what they read or see [15], data similar to ours have been obtained in a number of other studies showing that the relationship between transportation and need for cognition is more often statistically insignificant [15; 20]. However, the results obtained are different, which may be due to the influence of the stimulus material on the power of this relationship [21].

Narrative transportation was found to be significantly related to two of the Big Five personality traits, extraversion and open-mindedness, which partially coincides with the findings of other studies [20]. Extraverts are known to be oriented towards seeking stimulation

Table 1

Comparison of narrative transportation between females and males

	Males		Females		t-test		Effect size
	M	**SD**	**M**	**SD**	**t**	**p**	**Cohen's d**
Transportation	57,82	15,036	63,25	15,751	6,030	0,000	0,353
Cognitive factor	22,29	6,352	25,31	6,491	8,040	0,000	0,47
Affective factor	14,25	5,828	15,06	5,998	2,326	0,020	0,137
Imagery factor	21,28	6,813	22,89	6,747	4,054	0,000	0,237

Results of regression analysis

Variables	Narrative transportation		
	B	**SE B**	**β**
Gender	2,154	0,935	0,069*
Empathy	0,925	0,108	0,290***
Need for Cognition	0,046	0,052	0,028
Extraversion	0,503	0,165	0,094**
Agreeableness	0,347	0,209	0,052
Conscientiousness	−0,353	0,185	−0,060
Negative emotionality	0,099	0,176	0,020
Open-mindedness	0,409	0,190	0,066*
R^2	*0,147*		
F	*25,061****		

Note: «***» — $p < 0,001$; «**» — $p < 0,01$, «*» — $p < 0,05$.

outside of themselves, so when watching films they are probably more likely to be transported into the narrative for greater effect People who are open-mindedness are open to new knowledge and experiences, and therefore may be more interested in new stories presented in films, which enhances their narrative transportation. At the same time, the contradictory data on the relationship between personality traits and transportation may be due to the influence of the film genre itself on the level of transportation, the attractiveness of which is determined, among other things, by personality traits [2]. Thus, the choice of dramatic films is associated with such a trait as openness to experience [1]; and in the case of watching a drama, as was the case in our study, the genre attractiveness of the film may have contributed to the enhancement of narrative transportation. Our findings of a significant relationship between transportation and the attractiveness of the film seen (Pearson correlation coefficient r = 0.628; p < 0.01) are consistent with this assumption.

Despite the differences in narrative transportation between males and females identified in the comparative analysis, regression analysis showed that the contribution of gender was less than psychological characteristics.

In general, the obtained results demonstrate the presence of weak but significant links between individual psychological characteristics and narrative transportation, allowing us to speak about different predisposition to it [15]. This predisposition is primarily determined by the level of empathy, which is confirmed in most studies of narrative transportation. At the same time, the data on the links with other characteristics vary, which can be explained by the influence of the quality of the narrative as one of the main factors of narrative transportation.

Therefore, the next task was to compare how respondents who had experienced different levels of transportation expressed their attitudes towards the film they had watched. Despite the fact that they watched the same film, it seems that the data obtained will help in identifying the characteristics of films that enhance transporta-

tion and, consequently, determine the quality of transportable narratives.

The analysis of comments about the film allowed us to identify a number of characteristics that were attributed by respondents to both the story told in the film and its cinematic realisation. Here are the main characteristics mainly noted by them: presence of meaning, relevance of the problem, impact, emotional experience, plot, characters, finale, realism of what was shown, personal significance, play of actors, attractiveness of the story. It should be noted that viewers with a high level of transportation were more likely to express a desire to comment on the film and to do so in a more detailed manner.

The largest number of mentioned characteristics had to do with the meaning of the film. More than a third of the viewers in the high transportation group (34% of those who commented) wrote about the presence of meaning or attempted to state it (“*I think the film tried to draw attention to the great misunderstanding of generations nowadays...*”) in contrast to the group of respondents with low transportation, 20% of whom, on the contrary, noted its absence (“*The film does not bring any new ideas*”). Almost a third of respondents with high transportation (31%) point to the relevance of the film and the importance of the issues raised in it (“*The problem is really relevant in our time*”), while with low transportation only one respondent mentions this. Similar results were obtained concerning the impact of the film: 21% report a positive impact of the film (“*The film really makes you think*”) and 15% describe the emotional experience (“*The film, in general, caused positive emotions*”); while in the case of low transportation, no one notes the impact of the film, and only a few participants mention the negative emotional experience (“*The film causes a storm of negative emotions*”). Another characteristic that demonstrates the difference in the groups contrasting in transportation is the plot of the film. In general, it is assessed negatively by 25% of respondents with low transportation, and positively by 5%, with high transportation — 3% and 18%, respectively. At the same time, the former often write about the film as boring, banal and illogical

("*Too boring and predictable plot*"), while the latter define it as dynamic, interesting and exciting ("*interesting and exciting plot*"). In addition, 11% of viewers with high transportation evaluated, although in different ways, the ending of the film ("*unexpected finale*"), while with low transportation only one person paid attention to it. It is worth mentioning such a characteristic as realism. In the low transportation group, 20% of respondents pointed out the untruthfulness of the events presented ("*I don't think such things exist in life*"), while in the high transportation group, almost the same number of respondents noted the realism of what was shown ("*Very truthful, perfectly reflects the current reality*"). Another characteristic, which is represented in the comments of high transportation viewers (10%) as opposed to low transportation participants, is the personal significance of what they have seen ("*The film reminds me of my life*"). Viewers in both groups also commented on the "technical" characteristics of the film, with equally positive evaluations of the music and camera work, while the play of the actors was mentioned more often by low transportation viewers (18% vs. 13%) and in half of the cases negatively, in contrast to high transportation viewers who mentioned good artistic performance.

Finally, an important characteristic was the appeal of the story itself. In this case, viewers evaluated the events of the film, its characters and their actions, perceiving them directly, as if "from inside" the story. Such statements are found in both groups of viewers — with both high (24%) and low (22%) transportation, but in the first group, the attitude to the story is more often positive, with sympathy and empathy for the characters ("*Borja is handsome because he sold his headphones and bought cakes*"); in the second group, a negative assessment of what they saw prevails ("*For me, the main character, together with her boyfriend, are stupid teenagers who did not think the situation through at all and 'ran away'*"). As noted above, the overall assessment of the film's attractiveness corresponded to the level of narrative transportation.

The results obtained coincide in many respects with the ideas about qualitative narrative that have been described earlier [17; 19]. These are, first of all, the plot of the film, its logicality and dynamism, as well as the realism of what is shown. Especially "vividly" viewers with low transportation describe the inconsistency of their perceptions of the surrounding reality with what is depicted in the film, which reduces trust in the story told

and does not contribute to transportation [17]. Much less noted by respondents were the "technical" aspects of the film, although regardless of the level of transportation they were assessed rather positively. At the same time, we also identified such characteristics as meaning, relevance, and potential for impact, which seem to contribute to narrative transportation, and which have not been widely mentioned in previous studies of narrative quality. The questions remain as to whether these characteristics are specific to films of certain genres and whether they would be as important for narrative transportation in other films, such as entertainment films.

Conclusions

Consideration of the problem of psychological impact of films in the context of narrative impact expands the possibilities of studying the effectiveness of film influence, one of the factors of which is narrative transportation. Transportation is a special state of involvement and immersion in a narrative that enhances psychological impact and can lead to a change in a person's beliefs related to the content of the narrative. A strong determinant of narrative transportation is the quality of the narrative itself, while there is evidence of individual psychological differences in the propensity for transportation.

The results of our research show that narrative transportation is related to gender and some psychological characteristics, allowing us to speak about different predispositions to it. These characteristics include, first of all, empathy, as well as such personality traits as openmindedness and extraversion. At the same time, differences in the level of narrative transportation between female and male audiences can be explained by the effect of the greater proximity of a particular film to a certain audience, making a narrative more transportable for them.

As a result of the analysis, we have identified the characteristics of the narrative that contribute to the increase of imagery into it. These are, first of all, the presence of meaning in the film, the importance and relevance of the problems posed, and the potential for impact. In addition, the film's plot, its logicality and dynamism, the realism of what is shown, as well as the attractiveness of the story are important.

The data obtained in this study imply further clarification and outline the prospects for the development and conduct of new experimental studies.

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Impact of the Comedy on the Self-concept of the Viewer

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The article offers a theoretical analysis, as well as the results of an empirical study of the psychological impact of a comedy on the viewer. We offer a theoretical overview and generalization of various concepts of the comic. It is revealed that the phenomenon of the comic always presupposes intersubjective interactions, competitive relations of subjects, and therefore correlates with the formation of a position of self-affirmation in relation to another (others), transformed into an object of laughter. We constructed a model of the main assumed positions in the image of the world created by comedy: "Whistleblower", "Fool", "Rogue", "Good-natured" ("Rescuer"). We hypothesized that there is a cognitive basis of the image of the world created by comedy. We assume that the world of comedy is structured as a projection space described by J. Piaget, it is one of the forms of structuring the image of space in egocentric consciousness. This means that the impact of the comedy may be associated with an increase in egocentrism in the viewer's mind. We presentede results of an experiment which helped us to study the influence of a comedy film on the viewer's Self-concept. We took an American comedy "Vacation" (2015) as an example. As a result of watching the film, the indicators of "Independence" and "Sociability" ("Q-sorting") have significantly increased (p ≤ 0,05), at the trend level (p ≤ 0,08), the factor of "Strength" in the I-real ("Personal semantic differential") has increased. There were also correlations in the I-real: between "Assessment", "Strength" and "Activity", which indicates that after the comedy film, a positive attitude towards oneself is based on an assessment of one's strength. There was also a correlation between the "Assessment" in the Real Self and Ideal Self, i.e. idealization of oneself, and the correlation between "Evaluation" and "Strength" in the anti—ideal: the more negative the anti-ideal, the weaker it is, which indicates the reliance of self-affirmation on the humiliation of a negative character. In general, the results confirm that one of the main effects of comedy on the viewer is the emergence of a state of self—affirmation as a form of consciousness shift towards egocentrism.

Keywords: psychology of cinema, cinema impact, comedy, comic, Piaget, projection space, self-affirmation.

Воздействие фильма-комедии на Я-концепцию зрителя

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В статье предложен теоретический анализ, а также описаны результаты пилотажного эмпирического исследования психологического воздействия комедии на зрителя. Даны теоретический обзор и обобщение различных концепций комического. Выявлено, что феномен комического всегда предполагает межсубъектные соревновательные отношения и взаимодействия и поэтому коррелирует с формированием позиции самоутверждения по отношению к другому (другим), превращаемому в объект смеха. Построена модель основных предполагаемых позиций в образе мира, создаваемом комедией: «Разоблачитель», «Дурак», «Плут», «Добряк» («Спасатель»). Выдвинута гипотеза о когнитивной основе образа мира, создаваемого комедией. Предполагаем, что мир комедии структурирован как проекционное пространство, опи-

санное Ж. Пиаже как одна из форм структурирования образа пространства в эгоцентрическом сознании. Это означает, что воздействие кинокомедии может быть связано с усилением эгоцентризма в сознании зрителя. Изложены результаты пробного эксперимента, в котором изучалось влияние фильма-комедии на Я-концепцию зрителя. Использовался американский комедийный фильм «Каникулы» (2015). В результате просмотра фильма возросли показатели «Независимость» и «Общительность» («Q-сортировка») (р ≤ 0,05), на уровне тенденции (р ≤ 0,08) возрос фактор «Сила» в Я-реальном («Личностный семантический дифференциал»). Появились также корреляции в Я-реальном между «Оценкой», «Силой» и «Активностью», что свидетельствует о том, что после фильма-комедии позитивное отношение к себе основывается на оценке своей «силы». Также появилась корреляция между «Оценкой» в Я-реальном и Я-идеале, т. е. идеализация себя, и корреляция между «Оценкой» и «Силой» в антиидеале: чем отрицательнее антиидеал, тем он слабее, — что свидетельствует об опоре самоутверждения на уничижении отрицательного персонажа. В целом, результаты предварительно подтверждают, что одним из характерных эффектов воздействия комедии на зрителя может быть возникновение состояния самоутверждения. Есть основания допускать трактовку этого эффекта как форму сдвига сознания в сторону эгоцентризма.

Ключевые слова: психология кино, воздействие кино, комедия, комическое, Пиаже, проекционное пространство, самоутверждение.

To manage

Comedy films attract the attention of researchers relatively rarely. The reason for this, apparently, is the apparent obviousness of their positive, i.e., problem-free, impact. But such "evidence" exists if we limit the consideration of the psychological effect that arises from watching a film — at the everyday, and often at the research level, — to the emotional sphere. The American film researcher G. Smith, expressing this idea, figuratively described cinema as a machine for producing emotions [39]. From this perspective, comedy "produces" positive emotions, and it is easy to take this as a sufficient sign ofa positive impact in all senses. In fact, the influence of cinema on consciousness and на the human psyche in general is complex and multifaceted, and it affects not only the emotional sphere, but also self-consciousness, attitudes, cognitive functions, etc. [see for example: 18; 30]. Therefore, the evidence of the unproblematic positive impact of comedy on a person's consciousness can be deceptive. For example, in one of our studies, it was found that a comedy film reduces the level of connectedness of consciousness [34]. It is no coincidence that sociologist S.G. Kara-Murza noted the possibility of using humor and irony to destroy psychological protection from manipulation of consciousness [15]. However, in general, studies that reveal the essence of the influence of films of the comedy genre are almost absent and this topic itself is not covered by attention. We set the task of theoretical analysis and empirical study of this influence.

The object of our research was the psychological impact of a comedy film on the audience. We have limited the subject of our research to identifying the featuresof the impact of a comedy film on the Self-concept.

There are different versions of ideas about what the psychological content of the comic consists of: resolving contradictions, releasing emotional tension (catharsis), achieving a sense of superiority, and a form of psycho-logical play [8; 21; 35]. Are these options alternative? In our opinion, they are compatible and are aspects of a complex psychological phenomenon.

Let's start with an overview of the concepts *of the comic* as a special phenomenon. It should be noted that the main ideas of possible interpretations of the comic were already developed by the classics of philosophy and art criticism. Modern psychological studies of humor often offer only transcriptions of the ideas of previously developedclassical doctrines of the comic, or a simplified representation of them as a prehistory to the modern understanding of the comic "without prejudice", as a stimulus that causes obviously positive and useful emotions [21].

Review of classic comic art concepts

According to Plato, the reason for laughter is the discrepancy between the form and essence of a person, the discrepancy between who he claims to be and who he really is. Laughter itself is a mixture of sadness and pleasure: sadness at someone else's delusion and pleasure at the absence of delusion in the laughing person. In this sense, according to Plato, laughter is akin to gloating and, therefore, has an admixture of immorality [8, pp. 125—127]. It should be noted that the view of T. Hobbes is similar to Plato's idea of the comic: the passion of laughter is a sudden feeling of vanity from being superior to people who have any shortcomings [ibid., p. 138]. But, unlike Plato, Hobbes did not see this as a reason for a negative assessment.

According to Aristotle, "...comedy < ... > is an imitation of (people)who are rotten, although not in all their meanness: after all, the funny is (only) part of the ugly. In fact, the ridiculous is a certain mistake and ugliness, but painless and harmless" [2, p. 650]. You can interpret this as the fact that funny is something ugly-evil, but

helpless. This is how the image of the object of ridicule is usually drawn. In this sense, Aristotle's opinion reflects comicality as if in the first person: not an analysis of the phenomenon of the comic as such, but a description of the impression of the comic object in someone who expresses his attitude to the object.

I. Kant: "Laughter is an affect from the sudden transformation of expectation into nothing" [12, p. 352], i.e. it is a discharge, a release of tension. Therefore, according to Kant, laughter is useful and has a healing effect.

F. Schelling: in the comedy "…necessity falls into the subject, and freedom-into the object " [29, p. 419]. This means that the person who is internally unfree and rigid in the conditions that provide freedom is ridiculous.

G. Hegel's reflection is insightful: "The universal soil of comedy is a world where a person as a subject has made himself the complete master of everything that is significant for him as the essential content of his knowledge and accomplishment: a world whose goals destroy themselves by their insignificance" [6, p. 579]. So comedy arises from a position of "omniscience", i.e., knowledge of the helplessness and "stupidity" of the world.

A detailed and in-depth analysis of the comic was given by the German esthetician of the XVIII—XIX centuries, Jean-Paul [10]. His concept of the comic reflects, among other things, much of what was expressed by thinkers before him. Jean-Paul points out that nature is never funny. Only people or what we humanize can be funny. At the same time, it may not be the moral flaws of a person that are funny, but the mental delusions that are revealed in inadequate actions and aspirations. It is necessary that we project our knowledge on these aspirations (we must understand the inadequacy of these aspirations). The viewer must know more than the object of laughter, must be sure that he knows the "truth", this is an important condition for laughing at the object (this is taken into account in modern technologies for creating comedies [13]). And such knowledge may actually be our imagination, but it doesn't matter. Jean-Paul summarizes this into three components of the funny: 1) the aspiration of the object of laughter, which contradicts its position; 2) this position itself; 3) the observer with his own view, the object's behavior [10, p.139]. Therefore, "…every humorist's Ego plays first fiddle" [10, p. 155]. As a result, humor creates favorable conditions for the formation of vanity.

A deep study of the comic was undertaken by the famous Soviet philologist V.Ya. Propp [23]. According to Propp, the comic can be different, but it always contains mockery [23, p. 16], which in its developed form becomes an "instrument of destruction" [23, p. 31]. An important role in the comical effect is played by" obscuring " or removing "obscuring" [23, p. 28]. Thus, the effect of comicality arises from the sudden discovery of initially imperceptible, as if obscured, shortcomings of the object, its inferiority, i.e., the discrepancy between the internal actions (aspirations) of the object and the external forms of their manifestation [23, p. 29]. In general, laughter implies a detached attitude; therefore, in particular, laughing at oneself is possible only as a view of oneself from the outside, for example, at oneself in the past.

M.M. Bakhtin interpreted laughter as an expression of the world of dialogical polysubject carnival culture, as opposed to the official culture —monological, as if subject-object [3]. That is, laughter is a phenomenon that presupposes an image of the world, built as a system of intersubjective relations. Laughter is also an expression of vital force. In general, among philosophers and psychologists, the point of view that the comic is associated with an increase in vital energy, an increase in cognitive flexibility, etc. is quite popular [11; 26].

The opposite concept of Bakhtin (and close to the ideas of Schelling) is the concept of funny in A. Bergson [4]. According to Bergson, the comic is a human consciousness reduced to automatism, which finds itself in contradiction with the world. This representation of Bergson is part of his general concept, in which all phenomena are evaluated within the framework of the "vital impulse — inert matter"scale. The comic, therefore, in Bergson is evaluated as an expression of the loss of vital energy and falling into inertia. Therefore, according to Bergson, the comic and laughter itself require a short-term "anesthesia of the heart" [4].

Consonant with Bergson is the point of view of Z. Freud. According to Freud, laughter is a defense mechanism that combines the escape reflex (discharge reaction) and aggression [27]. At the same time, in his later article "Humor" (1928), he states: humor is "…the triumph of narcissism, in which the inviolability of the individual has triumphantly established itself" [28, p. 282]. In humor, a person takes a detached position: "I refuse to take damage under the influence of reality " (ibid.).

These are the classic points of view on the comic. Let's summarize them.

So, in the comic:

— the object of laughter showsa discrepancy, a contradiction (most often between the form and content).

— the object of laughter is only a person or something humanized, i.e. the subject.

— there is a contrast between the subject-observer and the object (which is ridiculed), while the subject is detached from the object, looks at it "from the side" or even "from above", from a position of superiority ("Comedy is not when you watch someone who does something funny, but when you look at the object from the outside"). when you watch someone who is looking at someone who is doing something funny " [13, p. 188]);

— the position of the subject (observer) is devoid of variability, he feels himself the "master" of knowledge, the "master" of vision, i.e. the owner of absolute measures that allow us to evaluate the object (i.e., this position is egocentric, in the terminology of J. Piaget);

— the subject evaluates the object and, as it were, removes the "barrier": he exposes it, sees in it the ugly, shortcomings (mistakes, inferiority, ugliness, reduction to automatism, aspirations that do not correspond to its position); at first this is hidden from the observer, but then he suddenly removes the "barrier", or simply it knows in advance that the object actually exists.

— there is a change of states, a sudden "reset" of expectations, turning them into nothing;

— some form of aggression against the target is possible.

Ideas about humor and the comic in psychology

Following the classics, psychologists interpret the comic as a manifestation of contradictions, inconsistencies that we encounter, and as a form of their resolution [19]. This is an integral component of the comic, I mentionalmost everything about it, but other components are also indicated.

T.V. Semenova draws attention to two properties of the comic: 1) it is connected with the interaction of people, especially with the perceptual side of social contact; 2) it is connected with the realization of human freedom [24].

Comic and humor are interrelated concepts, aspects of the same whole; at the same time, comic is a characteristic of an object, humor is a way of either seeing the comic in an object, or creating and projecting qualities that make it comical on the object [20]. It is clear, therefore, that psychologists are more likely to theorize about humor.

Foreign researchers consider humor in various aspects: as active cheerfulness, cognitive ability, emotional reaction, coping strategy, etc. [16]. Great importance is attached to the classification of different types of humor [21; 16]. Humor is considered more often through the prism of a psychoanalytic or cognitive approach [21]. As a rule, humor is considered as a source of positive "useful" emotions that improve well-being, increase adaptability, creativity, etc. [21]. According to N.F. Kuznetsova, this role of humor is even absolutized [19].

Following A. Maslow, humor is also considered as a phenomenon characteristic of a self-actualizing personality [17]. Its potential as a psychotherapy factor is described [14].

Humor is also assessed as a systemic property of the individual [9], as part of emotional intelligence [7].

At the same time, research data show a link between the sense of humor and self-esteem, a sense of self-worth [22], subjectivity and egocentricity [17]. The presence of an element of egocentricity and a tendency to self-affirmation in humor was pointed out by A. Adler [1].

In general, we see in modern researchers the continuation and variations of ideas discussed by classical philosophers. There is a noticeable emphasis on the possible therapeutic effect of humor. At the same time, there are empirical confirmations of the idea that humor is not only a source of positive emotions, but also it is associated in a certain way with intersubjective relationships and attitudesin relationships.

The image of the world created by the comic

A movie does not just provide a set of visual and auditory stimuli, but creates a limited virtual world and through this sets a certain vision of the real world. Thus, the researcher of psychology of cinema J. Mitri says: "The film impulse imposes on us a vision of the world organized in a certain sense" [37, p. 156]. What kind of vision of the world does the "movie pulse" of comedy create?

Based on the above generalization of the properties of the comic phenomenon, we can assume that the world of comedy is a world of intersubjective relations (the object of laughter is necessarily another subject). But this is a world of unequal relations: there is a kind of" omniscient "subject and there are" inferior " subjects, which thereby become objects of evaluating attitude, ridicule. The "omniscient" subject is a kind of "master" of knowledge, which allows him to see and know in others what they do not know. As a result of this, sudden revelations occur: some subjects embedded in a system of equal inter-subject relations suddenly turn out tobe inferior (or somehow inferior), i.e. objects. The unity, the balance of the system of inter-subject relations is suddenly disrupted, and a kind of energy reset occurs. But if we take into account that the system of relations is integral and tends to prolong its existence, after the imbalance is disturbed, they should undergo a reverse compensatory process, the restoration of equilibrium, should occur. The recovery function can be performed by any of the participants in this system.

So, comedy is always a competition of subjects: who is smart, who is stupid, who is more cunning than others, and who is kind. It is built as an intricate network, a" web " of relationships, so the nodes of relationships — positions-should play an important role here. Given what has been said about the world of comedy, we believe that the minimum set of basic possible positions can be as follows.

1. "Omniscient" subject-an observer who can reveal the inferiority, stupidity or ugliness of another subject. Let's call it the "***Whistleblower***". We believe that exposure to a certain emotional charge can transform into a position *of punishment*; therefore, a possible modification of the Whistleblower is ***the "Punisher"***.

2. A subject who loses a competition with a Whistleblower and, thanks to exposure, turns out to be inferior, i.e., turns into an object of negative assessments and ridicule. Conditionally — "***Fool***".

3. The subject who does not play the competition with the Whistleblower-successfully conceals his shortcomings and intentions from exposure. Conditionally — "***Rogue***".

4. Someone who triesto restore and correct the balance in the system of broken relationships. Conditionally — "G***ood Man***" (**"*Rescuer*").**

(One can see in these four positions a similarity to the well-known "Karpman's dramatic triangle": *Stalker*, *Victim*, *Rescuer*, [36] with the addition *of **"Traitor"*** [33]:

Stalker — Whistleblower.
Victim — Fool.
Traitor — Rogue.
Good Man — Rescuer.

The similarity, in our opinion, suggests that comedy is a reflection of the basic archetypal structures that are "exploited" in the game relationship scenarios described in transactional analysis [5].)

A thought experiment shows that comedy and its types are built on a combination of these positions. So, the classic master of the comic, the clown, is a combination of the hypostases of the **Fool** and the **Rogue**. The court jester had to be a **Whistleblower** once. **Good Man** + **Fool** + **Whistleblower** is also a typical character in comedies and comic literature, classic examples: Don Quixote, Charlie Chaplin's characters, Shurik from Gaidai's films. A combination of a **Rogue** and a **Whistleblower**: Ostap Bender, Khlestakov from The Inspector General, Chichikov from Dead Souls. **Whistleblower** (*Punisher*) + **Dodger** + **Good-Man Rescuer**: Woland from The Master and Margarita. Coverage of all four positions-**Whistleblower** (*Punisher*) + **Good-Man Rescuer** + Clown (**Fool** + **Rogue**) — the role of the popular Ukrainian comedian Zelensky and, perhaps, the secret of his success.

Funny episodes in comedies are usually situations of exposure. The fullness of the comic is achieved when the characters are mutually exposed, when the characters also turn out to be one for each other and cunning Rascals, and supposedly Rescuers, and deceived Fools, and Whistleblowers. A vivid example is "Student" and "Fedya" from the movie "Operation S and other adventures of Shurik "(Fig. 1, part of the movie "On the construction site", scene with a fly).

Figure 1. Still from the movie "Operation Y and other adventures of Shurik"

In this scene, all the facets of the comic described above are intertwined: the game of mutual help-*rescue*, mutual *deceit*, mutual naivety — *stupidity*, and *exposing* each other (with the transition to punitive actions).

Thus, exposing stupidity, trickery is an integral element of the plot situations of any comedy.

Let's try to identify the psychological and cognitive basis of the comic world. To analyze this basis, we will apply J. Piaget's model of three types of spontaneous structuring of space by human consciousness at different stages of its ontogenesis [38]. The basis for applying this Piaget model is that the world of intersubject relations has a structure that can be understood in one way or another as a certain space. According to Piaget, one of the three types, and, in our opinion, coincides in characteristics with the world of the comic, is *the projection space* (along with the space of places and Euclidean space) [38]. This is the world as a system of forms perceived by one or another ob-

server, fixed in a certain position. The object here exists only as a projection from a certain position of its form to the subject. The projection space is created "… by the intervention of an observer or "point of view", in relation to which the figures are projected <…> Therefore, the projective geometry can be genetically characterized as the geometry of points of view" [38, p. 554—555]. As a result, the genetically original cognitive operation that generates this childhood — «*of space is "aiming*", i.e., the subject's vision of an object from a certain position; in this case, another object is used as a means ("sight") (as in real aiming, a front sight) (ibid.). In such "aiming", the subject does not deal with the object itself, but with its projection (= shape, image). In the projection space, an important role is played by straight lines — projection lines, the shortestpaths from the object to the observer. It is they — as a kind of relations, connections-that, as it were, define the structure of such a space. A characteristic feature of the projection space, according to Piaget — is the absolutization — due non — reflexing to the unreflectability — of the observer's position-the subject, its reference system. This fixed position of the observer and the fixed frame of reference lead to egocentrism.

Egocentrism, the absolutization of one's own frame of reference, obsession with forms (how an object looks), the possibility of straight-line (as if simplified) actions aimed not at a practical result, but only at expressing attitudes to other subjects, exposure to illusions (forms that "obscure" real objects — this is what is inherent in the world, organized as a projection space. This corresponds to the factors described above that are involved in creating the comical effect. In particular, the cognitive action of *"aiming", which is basic for the projection space*, essentially coincides with the cognitive operation that constitutes the effect of comicality: with *the exposure* of the inferiority of another subject.

The implementation of *"aiming"* just creates a set of basic positions in comedy. Thus, the " sighter "is a" Whistleblower"; the object of aiming, if it is exposed, is a" Fool"; if it is not exposed, it is a" Rogue"; and the subject that maintains the balance in the system of relations that is disturbed by revelations, is a" Good — natured "("Rescuer").

If cinema is considered as an art form that reproduces, in one way or another, the experience of "being present in a situation" [31], then, judging by the above characteristics, the film comedy will mainly exploit this type of inclusion in the situation, which is expressed in the experience *of self-affirmation* [31]. Here the subject, relying on a kind of absolutized frame of reference, opposes himself to the object and evaluates it, thereby asserting himself.

The variants of understanding the essence of the comic presented at the beginning of the article can be considered as aspects of the formed projection space, in which the self-affirmation of subjects is realized, their points of view collide, and the balance in the system of relations is disturbed and regained.

Procedure and methods of research

For preliminary confirmation of our understanding of the comic, we conducted a pilot study.

The aim of the study was to test the assumption that a comedy film forms a viewer's self-image associated with *self-affirmation*. At the same time, we also assumed that there would be signs of any of the positions described above: Rogue, Fool, Whistleblower (Punisher), Good-Man (Rescuer). In this case, most likely, there are signs of the position that most directly implements *self-affirmation*: The whistleblower.

Identifying signs *of self-affirmation* would be an indirect confirmation that comedy forms the viewer's image of the world, structured as *a projection space*, with the consequences that follow from this (egocentrism, certain specifics of cognitive functions, etc.).

The study was conducted in two stages.

I.. Previously, the subjects were offered two psychodiagnostic methods that focused on the features of the Self-concept.

II. After 5 days, the subjects were shown a movie (on a computer monitor or on a large screen, using a multimedia projector), after which the subjects again underwent the same techniques.

The study involved 39 participants (age-from 17 to 23 years, average age — 20.5; gender composition — 20 girls, 19 boys).

The distribution of study participants into experimental and control groups was carried out by an experimenter, with approximate alignment by age and gender composition. Social characteristics were also taken into account (characteristics of interests, general level of academic performance). In the experimental group there were 19 participants (10 girls, 9 boys), in the control group — 20 (10 girls, 10 boys). All the subjects were full-time students of the specialty "Psychology", DonGU, mostly senior years — 1st and 2nd years of the master's degree, 4th year of the bachelor's degree, and 4 people of the 2nd and 3rd years of the bachelor's degree; the average age in the experimental and controlgroups approximately coincided. The drug used in the study was not previously seen by the subjects.

Two methods were used to assess the film's impact on the Self-concept.

1. V. Stefanson's "Q-sorting" method (adapted by E.L. Gorfinkel and I.L. Keleynikov at V.M. Bekhterev Research Institute). The test consists of 60 questions-statements, with the need to choose the answer "yes / "no". The questions allow you to determine self-assessment based on six main trends of behavior in the group: "dependence", "independence", "sociability", "non — sociability", "acceptance of the struggle", "avoidance of the struggle" (for each trend-10 questions).

2. The method "Personal semantic differential" (abbreviated as LSD; modification of the method of Charles Osgood). At the same time, for a deeper analysis of the Self-concept, a distinction was introduced in it between three aspects: the self-real, the Self-ideal, and the Self-anti-ideal (the technique is borrowed from the study of V.S. Sobkin and O.S. Markina [25]). In this method, the attitude to oneself is determined by scaling (21 scales) and then summing up the points by three factors:"Strength", "Activity" and "Score". Each of the three aspects of the Self-concept is evaluated separately.

The study used the American adventure comedy film Vacation (2015), directed and written by J. Daley and J. Goldstein. Plot: a young father and an exemplary family man really wants to unite the family and recreate the holidays of his childhood (from the film "Vacation", 1983), where the main character was still a boy). Together with his wife and two sons, he decides to take a trip across the country, heading to one of the best parks in the United States, WalleyWorld. At first, their journey goes smoothly, but the further they get away from home, the more problems arise. However, despite all the difficulties, the head of the family intends to complete his journey.

In statistical data processing Pearson's r-test was used to assess the correlation, and Student's t— test and Wilcoxon's T-test were used to assess the significance of the difference in average indicators.

The study was conducted in 2020, with the participation of V.I. Antropova.

Results and discussion

The results of the "Q-sorting" method in the experimental group are shown in Fig. 2.

We obtained a significant change in the average self-assessment indicator for the "*Sociability*" factor ($p \le 0,05$, according to the Student's criterion; according to the Wilcoxon criterion, the significance of the shift is $p \le 0,01$). Self-esteem for the "*Dependency*" factor also decreased slightly($p < 0,05$) and self-esteem for the "*Independence*" factor increased ($p < 0,05$). There were no significant changes in the control group (Figure 3).

Comparison of the experimental group with the control group "before", as well as comparison of their" after " did not show significant differences (when comparing the samplest, the Student's t-test was used). Only a certain approximation to the level of "tendency to differ" was revealed in the indicators "*Independence*" and"*Avoidance of struggle*""after", both indicators were slightly higher in the experimental group.

The growth *of independence* and *sociability* in the experimental group can be seen as an increase in the state of self-confidence in the relationship system, i.e., a state *of self-affirmation*. Also note that independence and sociability contradict each other to a certain extent: independence puts out of relationships, sociability, on the contrary, includes in relationships. This contradictions removed if we assume that this is a manifestation of the position *of the Whistleblower* position that just combines both, due to inclusion in the relationship, but with some detachment, as if on the rights of exclusivity.

The results of the "Personal semantic Differential" method are presented in Fig. 4—6.

Although growth is observed for all three factors in I-real (Figure 4), it is only for the "*Strength*" factor that it has reached significance at the trend level ($p \le 0,08$).
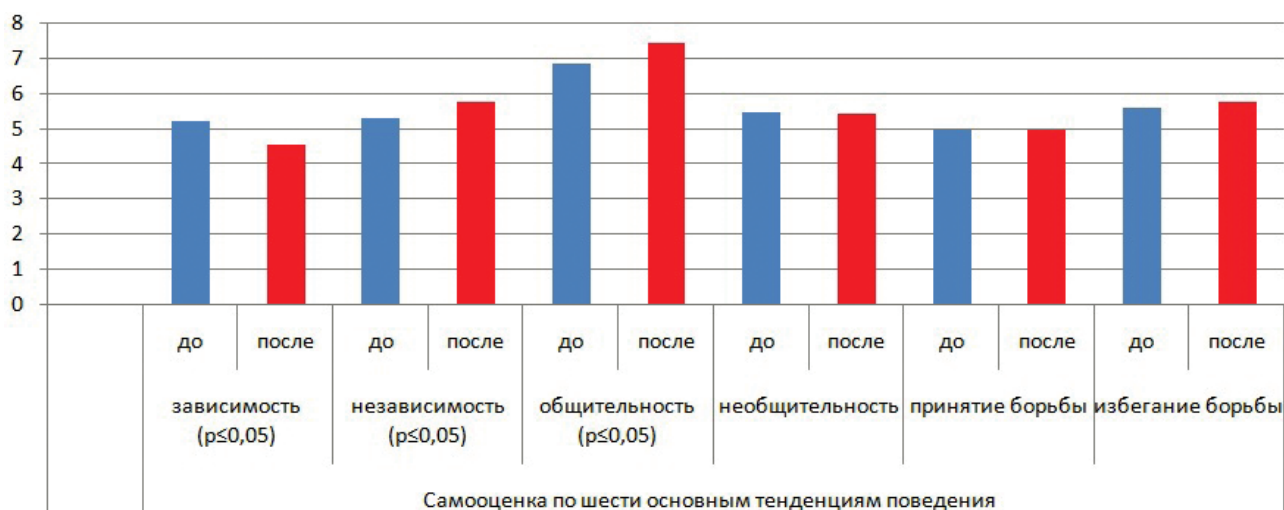
Figure 2. Q-sorting results before and after watching a comedy movie
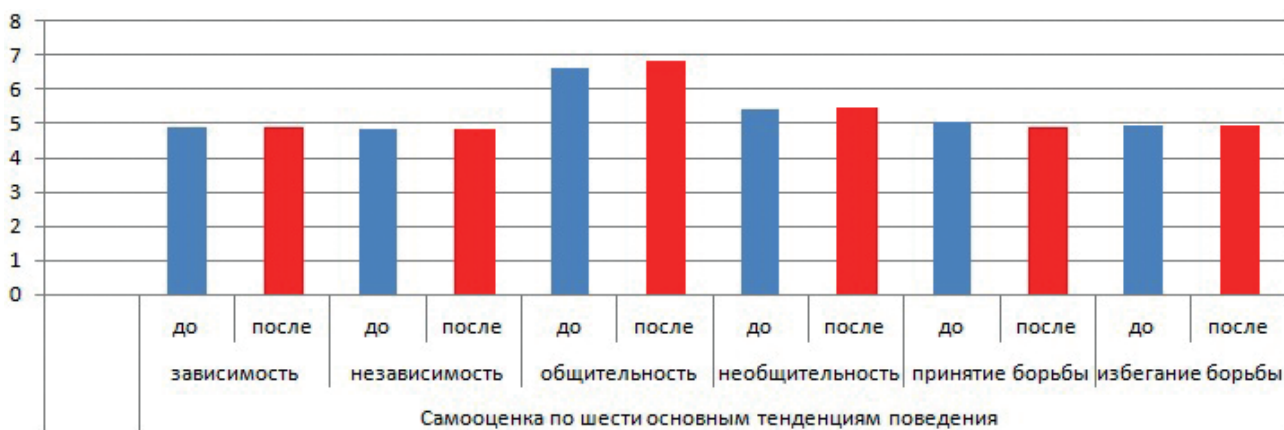
Figure 3. Results of the "Q-sorting" method "before" and "after" (control group)
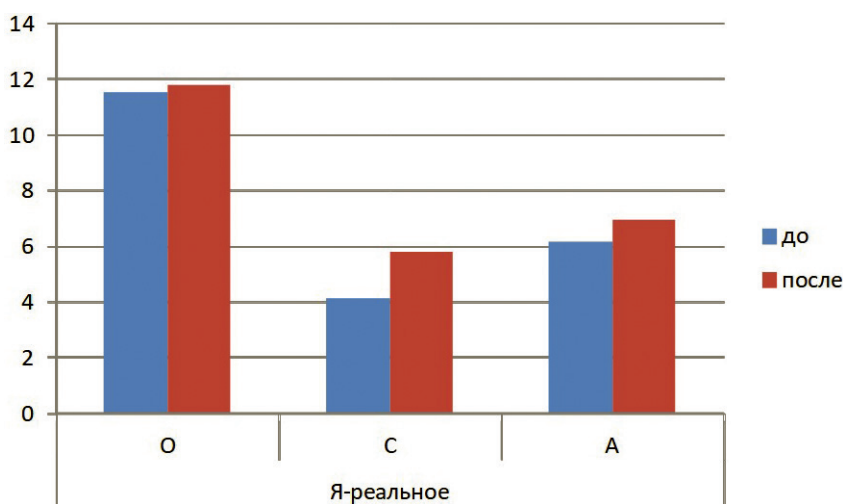
Figure 4. Factors according to the "Personal semantic differential" method before and after watching a comedy film (I-real)

No significant changes were found in the I-ideal (Fig. 5). A shift with significance at the trend level (p < 0,08) was observed for the "*Score*" factor in the anti-ideal (Figure 6).

In the control group, no significant changes were detected (we do not give diagrams; the results "before" and "after" are almost the same).

The tendency to increase the "*Strength*" factor in *the Self-real* is an additional confirmation of the appearance of a state of self-affirmation after watching a comedy film. A negative shift in the "*Rating*" *factor* in the anti-ideal is a sign that the self-affirmation we are talking about is due to the strengthening of the nega-
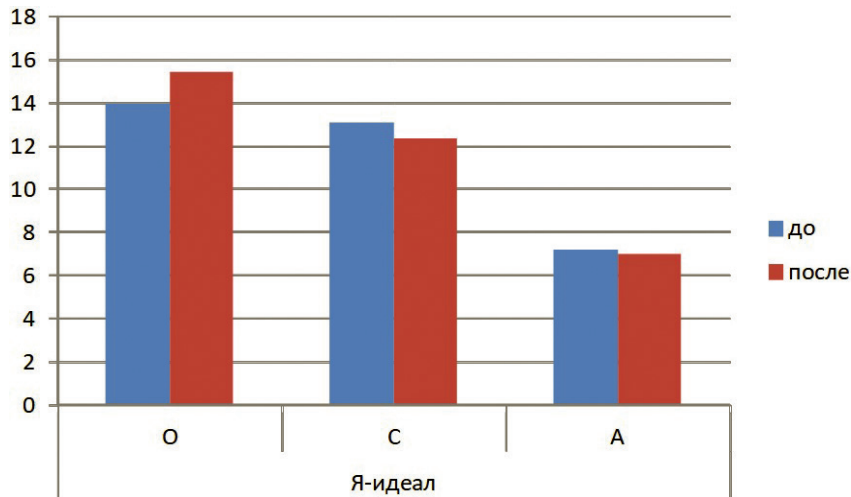
Figure 5. Factors according to the "Personal semantic differential" method before and after watching a comedy film (I-ideal)
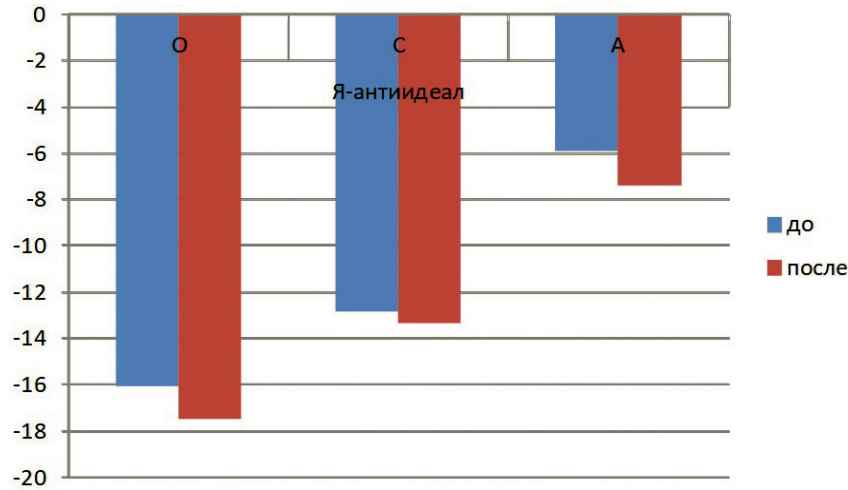
Figure 6. Factors according to the "Personal semantic differential" method before and after watching
a comedy film (I-anti-ideal)

tive character's attractiveness, as if it were humiliating him.

In this result, we can see the actualization in the consciousness of two polar opposite interrelated images: the self-asserting "*Whistleblower*" and the humiliated "*Fool*".

Changes incorrelations between factors are of interest as an additional material (Figures 7 and 8).

After watching the film, there were correlations between the indicators for the y factory "*Score*" and the indicators for the factors "*Activity*" and "*Strength*"

(r_{gr} = 0,46 at p ≤ 0,05). So, a positive attitude towards yourself after the film began to correlate with the experience of your strength, self-confidence. Obviously, this also indicates that the film is recreating a state of self-affirmation.

In other I-concentration modalities (I-ideal and anti-ideal), viewing the film had an effect in one case: in the anti-ideal, there is a correlation between the "*Score*" and "*Strength*" factors (before: r =−0,16, after: r = 0,56; in both cases, at p ≤ 0,05): the more negative the image is

Figure 7. Correlations of factors according to the method of "Personal semantic differential" before watching a comedy film (I-real)
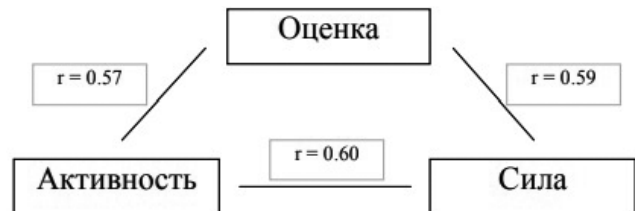
Figure 8. Correlationsof factors according to the "Personal semantic differential" method after watching a comedy film (I-real)

anti-ideal, the weaker and more vulnerable it is. In our opinion, this is an additional evidence of the specifics of the self-affirmation created by the film — it is based on the humiliation of a negative character.

Another shift towards the appearance of correlation: the indicators for the "*Score*" factor in the I-real and I-ideal began to correlate after watching the film (before: r = 0,29; after: r = 0,62; in both cases at p ≤ 0,05). This should probably be interpreted as a shift towards "idealizing" yourself after watching a comedy.

Thus, watching a comedy film creates a shift in the viewer's Self-concept towards self-idealization, increasing confidence and awareness of their own strength, while at the same time belittling the image of the anti-ideal. We believe that this effect occurs on the basis of introducing the viewer to the position of the "*Whistle-blower*", whose self-affirmation is realized by humiliating the subjects opposing the "*Whistleblower*" (introducing them to the image of "*Fools*").

Our results indirectly confirm the possibility of comedies structuring the audience's cognitive sphere in the "projection space" format, as we described above. The point is that self-affirmation as a way of realizing self-consciousness is congruent to the projection space. Thus, self-consciousness, formatted according to the structure of the projection space, presupposes the active identification and autonomization of such an aspect of self-consciousness, as I-for-others. The projection of the I-I-for-others, becoming as it were an independent entity, does not so much express the I-real as it is used as a constructed tool for influencing others, acquiring power over others — the very "aiming" that, according to Piaget, generates projection space. In this sense, the assumed projection space explains well the cognitive basis on which self-affirmation appears.

This is also important for understanding the possible impact of comedy on the state of the viewer's cognitive sphere. Projections themselves are compatible in any way (they can overlap or combine without interacting), so in the world of projections, logic as such is not needed and is replaced by imagination[1] (actions with images). The projection world itself *is incoherent*. It can have simulated connectivity. This means, that the cognitive functions that are responsible for the coherence of consciousness — attention, memory, and retribution — do not play a key role here. This is probably, why comedy had the most negative impact on memory and attention in our study of the impact of different genres on cognitive functions [34]. The projected world does not reflect reality, but is, as it were, adapted to the needs of the subject who creates it; this world is ego-centered. Therefore, self-affirmation in it occurs naturally.

Of course, at this stage, the stage of testing, we can only talk about preliminary conclusions. However, the study provides grounds for problematization of the question of the psychological impact of comedy. It also con-

firms that the effects of cinema on the viewer cannot be reduced to evoking emotional reactions, or transforming the viewer's self-image by simply identifying with certain characters in the film.

Conclusions

1. Theoretical analysis and generalization of various concepts of the comic as a phenomenon makes it possible to form an integrative model of the parameters of the image of the world recreated by the comic and, as canbe assumed, implemented as the film world of comedy.

2. The world of comedy is: a) a world of inter-subjective competitive relations; b) a world with produced inequality in relations; c) a world of disguises and exposures; d) a world in which the system of relations constantly fluctuates between the violation of equilibrium and its restoration.

3. There are reasons to compare the structure of the film world of comedy with the structure of the" projection space "as understood by J. Piaget (according to Piaget," projection space " is a form of representation of the structure of space inherent in one of the phases of the development of egocentric consciousness).

4. "Entering" the film as a "projection space", we can assume, gives the viewer the opportunity to take the position of a subject-a judge, a "Whistleblower" who sees the lack of superiority of other subjects behind the "masks" covering them.

5. The results obtained in the pilot study provide some confirmation of the described theoretical concept of comedy. Thus, after watching the film, the audience shows signs of experiencing self-affirmation:

— there is a slight increase in self-esteem in such parameters as independence and sociability (the "Q-sorting" method);

— there are correlations of the "Rating" factor with the "Strength" and "Activity" factors in the Self-real (the "Personal semantic Differential" method), as well as the correlation фактора of the "Rating" factor in the Self-real with the "Rating" factor in the Self-ideal;

— in the anti-ideal, there is a correlation between the "Score" and "Strength" factors, which can be interpreted as a tendency to belittle a negative character for self-affirmation.

6. Theoretically, it can be assumed that if comedy really gives the viewer an image of the world as a "projection space", then it probably increasesthe importance of imagination as a form of arbitrary work with images, while reducing the importance of their logical coherence.

This research is exploratory and preliminary in nature. Conclusions can be drawn reasonably enough after conducting studieswith varying different basic variables of the film (types of plots and situations, character sets, etc.) and with a large sample size.

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[1] Или обманом, что тоже воображение, но с целью имитации реальности для какого-либо адресата. Неслучайно комедия строится на обманах и разоблачениях.

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THEORY AND METODOLOGY
ТЕОРИЯ И МЕТОДОЛОГИЯ

Exploring Paradoxes in the Development of Mathematical Thinking: a Cultural-historical Perspective

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Primary school teachers are the educators responsible for introducing children into the world of mathematics. In the process of learning mathematics, children may experience negative emotions and develop negative attitudes or mathematics anxiety. Some authors approach these issues by focusing on primary teachers' mathematics anxiety or proficiency in mathematics. In this article, we explore whether and how certain social and educational practices shape or not the development of mathematical thinking in prospective primary teachers, from a cultural-historical perspective. The study's sample consists of twelve prospective primary teachers in their last year of studies. The participants were interviewed about their experience with mathematics throughout their educational years. By examining and contrasting the different developmental trajectories of the participants, we identified their "imprisonment" in situational thinking and some of the paradoxes that characterise their development. Adopting a historical perspective in analysing participants' trajectories was crucial in uncovering the paradoxical nature of the development of mathematical thinking. We conclude by highlighting the socially mediated nature of mathematics and the obstacles posed by the competitive and exam-driven nature of educational practices.

Keywords: development of mathematical thinking, prospective primary teachers, situational thinking, conceptual thinking, paradoxes.

Исследование парадоксов в развитии математического мышления: культурно-историческая перспектива

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Учителя начальной школы ответственны за введение детей в мир математики. В процессе изучения математики дети могут испытывать негативные эмоции и у них может формироваться отрицательное отношение или математическую тревожность. Некоторые авторы рассматривают эти вопросы с точки зрения математической тревожности учителей начальной школы или их уровня владения математикой. В этой статье мы, с точки зрения культурно-исторической перспективы, рассмотрим, формируют ли определенные социальные и образовательные практики развитие математического мышления у будущих учителей начальных классов. Наша выборка состоит из двенадцати будущих учителей начальных классов, находящихся на последнем году обучения. Участников исследования опросили об их опыте преподавания математики на протяжении всех лет обучения. Рассматривая и сопоставляя различные траектории развития участников, мы выявили, что они являются «пленниками» ситуативного мышления, обнаружили некоторые парадоксы, характеризующие их развитие. Принятие исторической перспективы при анализе траекторий участников сыграло решающую роль в раскрытии парадоксальной природы развития математического мышления. В заключение мы подчеркиваем социально опосредованную природу математики, анализируем препятствия, создаваемые соревновательным и экзаменационным характером образовательных практик.

Ключевые слова: развитие математического мышления, будущие учителя начальных классов, ситуативное мышление, концептуальное мышление, парадоксы.

Introduction

Many of us have told or heard stories about negative experiences of mathematics at school; expressions such as "I hate mathematics" or "I had a really bad math teacher" are not only common but they actually are quite older than we think. For example, consider the following Elizabethan verse:

Multiplication is my vexation
And division is quite as bad
The Golden Rule is my stumbling-stool
And Practice drives me mad .

In this text from the 1570s, the unknown author has successfully captured the negative emotions that many 21st century students experience when learning mathematics. So, one may reasonably ask: why is this the case?

Why mathematics, despite of the advances in science and the overall societal changes that have occurred over the last 500 years, can still elicit such strong emotions? At the following we discuss representative findings from two main sources of the scientific discourse; the literature on mathematics anxiety (MA) and primary teachers' proficiency in mathematics.

MA is the feeling of fear and tension that a person experience when manipulating numbers or solving a mathematical problem [17]. Some authors treat MA as a personal characteristic pertaining to difficulties with numerical and spatial processing [13], gender [11], general anxiety [10] or genetic predispositions [22]. For others, MA is linked to socio-environmental factors such as negative experiences at home or in the classroom [2; 16]. In the case of the latter, a lot of attention has been drawn

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[1] "Golden Rule" refers to the rule of three, "practice" refers to financial arithmetic.

to the role of primary teachers who engage in dogmatic teaching practices [3; 14], overemphasise rote learning [20] or instil gender-stereotyped beliefs [4].

Another dimension that has been widely discussed in the literature pertains to the mathematical competence of primary teachers. A growing body of research suggests that a mere proficiency in mathematics alone is not sufficient and that primary teachers need to develop a deeper understanding of mathematics [9]. One of the most influential approaches in this area is Shulman's [18] distinction between content knowledge (the knowledge related to a particular subject) and pedagogical content knowledge (a combination of content and pedagogical knowledge). Although Shulman's approach has been criticised [8], the focus on content is evident in various policy documents that seek to answer questions such as "What should future primary teachers know about mathematics?" [see 5 for some examples]. In our view, this perspective has created a dichotomy that is reflected in many teacher preparation courses: the university curriculum is divided between modules that focus on either mathematics or on how mathematics should be taught.

Furthermore, current views of the affective and the knowledge domains fail to capture the issues surrounding primary teacher education because they do not adopt an approach that pays attention to the *development* of mathematical thinking. Among the few attempts on that front is Simon's [19] concept of key developmental understanding, a construct that highlights significant milestones in a student's mathematical development and is based on Piaget's [15] notion of reflective abstraction.

It seems that the issues surrounding the unpreparedness of primary teachers in mathematics require a developmental perspective, which is currently lacking in the literature. Questions such as "do primary teachers have MA because of their reduced math abilities?" or "what kind of knowledge do future primary teachers need?" miss the point and focus on phenomenological aspects rather than on the underlying mechanisms that give rise to such phenomena. In our view, a more meaningful approach to unravel this issue would be to look at the development of primary teachers' mathematical thinking. Consequently, in this paper we ask: How does the nature of mathematics teaching and learning contribute or not to the development of mathematical thinking in prospective primary teachers?

Theoretical framework

Vygotsky used the term 'obuchenie' which refers to a two-way process of teaching and learning. The problem of the relationship between obuchenie and development was examined by Vygotsky as "the most central and fundamental question" [21, p. 3]. For Vygotsky, the relationship between 'obuchenie' and development is dialectical: on the one hand, learning is based on a certain level of cognitive development, and on the other, learning plays a guiding role in development.

The relationship between 'obuchenie' and development is not static but is influenced by the organisation

of society and the educational system. It is important to underline that not all forms of instruction necessarily lead to meaningful cognitive development. "No one has ever argued that teaching someone to ride a bicycle, to swim, or play golf (forms of activity that are much more complex than the discrimination of the magnitude of angles) has any significant influence on the general development of the child's mind" [21, p. 200].

The transition from situational thinking to the level of conceptual thinking is an important dimension of cognitive development. Situational thinking relies primarily on sensory perception focusing on understanding and responding to the immediate context or situation at hand. In contrast, conceptual thinking involves the ability to generalise, and think beyond the immediate context [12]. Theoretical generalisation as an integral part of conceptual thinking involves the ability to go beyond superficial observations to understand the deeper principles and relationships underlying the phenomena being studied [6; 7].

The dominance of empiricism and narrow pragmatism in the classroom can inhibit the transition from visual-effective and concrete-pictorial thinking to theoretical thinking, thus hindering the development of higher mental processes. If instructional practices prioritise only empirical observation and practical application, students may struggle to engage in theoretical reasoning, problem solving and critical thinking, which are crucial for cognitive development.

Methodology

Context, Participants and Data Collection

In Greece, students are admitted to a university after passing national qualifying examinations (Panhellenic Exams). Students wishing to become primary school teachers can choose a route that may or may not include mathematics as an examination subject. Therefore, it is very common for prospective primary teachers to have a two-to-three-years gap in studying mathematics when they enter the university.

The study took place in a Department of Primary Education in Greece and was approved by the university's research ethics committee (decision number: 27/24.02.2022). Our sample consists of 12 undergraduates (prospective primary teachers) who were interviewed during the spring semester of 2022 (average age: 21.3 years, 91.6% females). Due to COVID-19 related restrictions, all interviews were conducted via Zoom. The interviews were semi-structured and each session lasted an average of 40 minutes. No incentives or other types of compensation were offered to participants.

The interview protocol included open-ended questions focusing on four topics (Table 1). Although the question "How would you describe your relationship with mathematics?" was intended to be used as an "icebreaker", it proved to be the one that allowed both the participants and the authors to unlock a developmental perspective i.e., the interviews became "life stories".

Table 1

The interview protocol questions

Topic	Question
Overall experience with mathematics	How would you describe your relationship with mathematics?
Events and difficulties	What kind of difficulties did you encounter in school/ at the university? Can you recall any particular event?
Emotions	How did you feel when this happened?
Coping	Did you try to overcome these difficulties? How?

Analytical approach

All the interviews were transcribed verbatim. Initially, both authors spent time in reading the transcripts in both literally and interpretatively. They then engaged independently in an open coding process; the codes were then brought together and discussed. The main focus of this process was not to reach agreement but rather to gain an integrative understanding in terms of both complementary and conflicting views. The codes were then combined and organised into thematically related groups (themes).

During this stage, it became clear that some participants had serious problems with mathematics while others did not; this observation was crucial for the subsequent analysis, as the approach described above was not sufficient to capture the diversity found in the data; therefore, the interviews were divided into two groups. A summary was then written for each case and the themes covered in each interview were collected. Finally, all the summaries were tabulated and the two groups were compared.

Findings

In the following sections we first describe the main characteristics of the two groups and the themes identified in the interview data. We then compare the themes between the two groups and finally, we introduce and present a representative case for each group.

Description of the two groups

Using the participants' accounts of their experiences with mathematics as a criterion, we created two groups, group A and group B. Participants in group A (n=6), reported having received low grades throughout their schooling years, having experienced constant serious difficulties in learning mathematics, and reported having developed negative attitudes towards mathematics or even MA. In contrast, participants in group B (n=6) had an unproblematic experience with mathematics; they reported having good grades throughout their schooling years and conveyed a positive attitude towards mathematics. Extracts from the interviews illustrating these differences are presented in Table 2.

Themes

The analysis led to the identification of five themes that were common to all cases (Figure 1): theme 1 captures participants' views about the kind of knowledge that primary teachers should learn at the university in order to be able to teach mathematics in schools; theme 2 pertains to participants' opinions about a person's ability to learn mathematics; theme 3 expresses participants' views on the approach and types of procedures involved in learning mathematics; theme 4 represents participants' views and self-reflections about the development of their mathematical thinking at the university and; theme 5 summarises the social situations that participants recall having experienced while learning mathematics throughout their formal education.

Comparisons between groups

By comparing and contrasting the themes between the groups, we identified whether and how the participants' views converged or diverged (Table 3). With regard to theme 1, both groups expressed the view that the teaching and learning of mathematics at the university should replicate the school curriculum. In relation to

Table 2

Participants' description of their relationship with mathematics

Group A	"My relationship with mathematics was not good" (S01)
	"I was always afraid of mathematics" (S04)
	"I always felt inadequate in this subject" (S06)
	"I started doing again mathematics at the university because I had to" (S07)
	"My relationship with mathematics was strange, I always felt anxious" (S08)
	"My relationship with mathematics was never good" (S12)
Group B	"I love mathematics since a very young age" (S02)
	"In general, I like mathematics" (S03)
	"I have a very good relationship with mathematics" (S05)
	"I reached a point that I started to love mathematics" (S09)
	"I was always a very good student; all subjects were the same for me" (S10)
	"I was very good at school and I liked mathematics" (S11)

Theme 5: Social situations

Theme 1: Mathematics and the teaching profession

Themes

Theme 4: Development at the university

Theme 2: The nature of mathematical knowledge

Theme 3: The process of learning mathematics
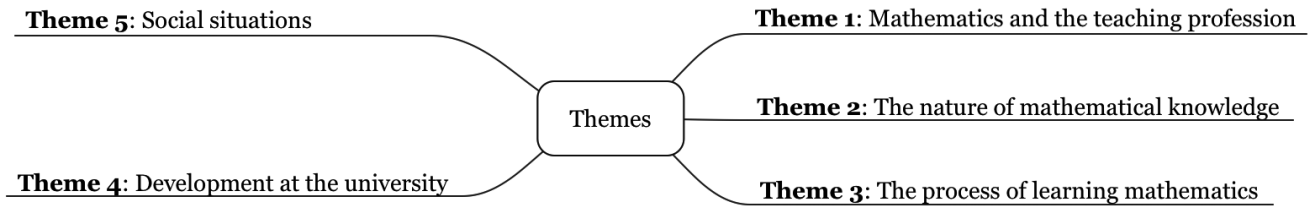
Fig. 1. The five themes identified in the interview data

theme 2, participants from group A considered mathematics to be an innate ability, a process that has an end. On the contrary, the participants of group B described mathematics as a way of thinking that is governed by its own laws, a kind of knowledge that can be cultivated and should be approached as a developmental process. In relation to theme 3, both groups described their approaches to learning mathematics in an exam-driven way, a process that requires minimal effort. With regard to theme 4, both groups expressed the view that virtually nothing significant had been learned at the university. Finally, regarding theme 5, participants from group A reported traumatic events (some at an early age), whereas participants in group B reported insignificant social situations or no traumatic events at all.

Representative cases
Group A: Penelope
Penelope was in her fourth year at university when she was interviewed and was currently doing her practicum in a public school. Penelope's developmental trajectory was characterized by a gradual disengagement from mathematics that began in primary school and intensified through secondary school. At the beginning of our interview, Penelope described her overall experience of mathematics as follows:

In primary school... my relationship with mathematics was mediocre... I didn't do badly it was just... I always felt at a disadvantage in mathematics when compared to other subjects... In junior high school [Gymnasium] it got worse, I wasn't doing well at all... in senior high school [Lyceum] I had distanced myself, I didn't pay attention, I pretended that mathematics didn't exist because they caused me anxiety... then at the university mathematics was a necessary evil so to speak...

Penelope's rite of passage into the world of mathematics was an unpleasant encounter, an experience marked by a series of dramatic events involving her primary school teacher. According to Penelope, the root cause of her unsuccessful journey could be traced to her

teacher's general classroom behaviour (e.g., being strict) and pedagogical approach (e.g., following the book to the letter), an attitude that caused Penelope to experience a range of negative emotions that led her to develop MA:

We had a teacher somewhere in fourth/fifth/sixth [grade] somewhere around there... [...] this is where I kind of lost it, because she didn't treat us nicely in mathematics... to anyone who didn't understand.... she kept calling the children up to the blackboard and... when I was on the blackboard... that caused me a lot of anxiety because... I felt that all my classmates were looking at me, how I would solve the problem... the teacher was quite demanding... and since then I think I had... I have had quite a hard time with mathematics...

During junior high school, Penelope's relationship with mathematics deteriorated even further due to a mathematics teacher who showed no particular interest in supporting his students. This led Penelope to develop an apathy towards mathematics, which gradually led her to totally distance herself in relation to mathematics:

In junior high school we had a completely indifferent teacher... he never explained the mathematical concepts or theory to us.... we just went in and out of the class... and then we did tests... apparently nobody did well at all, this was reflected in my grades, then it became bigger and... I gave up at some point...

Although Penelope's developmental trajectory was characterized by disruptions and discontinuities, when asked if and how she was coping with her situation, her response indicated an intention not to deal with her gaps properly but to rather "fix" them temporarily, a choice legitimized by her teacher's attitude:

I only had private lessons for a while in junior high school... one summer... and I think it went well but when the schools opened again and I saw the teacher's indifference, I automatically became disinterested in the class... and since we only had 15 subjects, I decided to study the rest [and not mathematics]...

Penelope's learning philosophy became more evident when she was asked to reflect on her experience of mathematics and her approach in dealing with difficulties faced during her school years:

Table 3

Theme comparisons between groups

Theme	Group A	Group B
(1) Mathematics and the teaching profession	The teaching-learning of mathematics at the university should replicate the school curriculum.	
(2) Nature of mathematical knowledge	Understanding mathematics is an innate ability	Understanding mathematics is a developmental process
(3) The process of learning mathematics	Learning requires minimal effort	
(4) Development at the university	Absence of development at the university	
(5) Social situations	Traumatic events	No events/minor events

At first, I was trying to cope with it, I was trying at home as much as I could, studying, looking for ways to explain it to myself so that I could understand mathematics, so that I could move on, so that I could be good, because... I wanted to be good, I had a very good course throughout the school years and it annoyed me that I was behind only in this subject, while I was very good in everything else... And I tried at first at home to explain it with my mom many times, especially in primary school, and then in secondary school on my own, I tried to study mathematics... but I couldn't, it was difficult...

By the end of junior high school and at the beginning of senior high school, Penelope had already decided to choose a direction in her studies that did not include mathematics as a subject. This choice was further confirmed by a self-perception that she was more competent in the humanities rather than in the natural sciences or mathematics:

Yes, I had decided on my major from very early on because I could see that I had an inclination towards most of the theoretical subjects, that I liked them even more... so...

At the university, Penelope studied two types of modules, one focused on the didactic side of mathematics and the other on mathematics per se. In discussing her experience of the latter, Penelope made a clear distinction between the kind of mathematical knowledge that primary teachers need and the knowledge that which is actually taught at the university:

... I think the material he [the lecturer] chooses to teach is completely alien and unnecessary for us who are going to be primary teachers... we could focus on parts of the school curriculum, practice on things, do examples from the school textbook, I don't know... I think it's all a mistake... Why don't we do the things that we are going to teach in primary school?

Penelope's narrative revealed an instrumental, utilitarian and pragmatic approach to knowledge and learning; for her, the teaching and learning of mathematics at the university should be examined in terms of its narrow application i.e., as a replication of the school curriculum. This view was further elaborated when Penelope described having a relatively unproblematic experience with the mathematics education modules; Penelope felt motivated because she saw a clear connection between the material taught and the school curriculum:

...because we were focusing exactly on the things that we are going to teach later... there was also a motivation to study it because you know it will come in handy...

Penelope's exposure to dramatic events at an early age, had left an important imprint on her; while discussing about the emotions of fear surrounding her every time she was involved in activities with mathematical content, she commented about her experience in her practicum:

I am currently doing my practicum... I've been asked to teach mathematics both semesters... while it is very easy for me to prepare, study, find activities or alternative ways of teaching in other subjects... in mathematics I don't know why, I can't do it... I feel too stressed... especially with fractions... I think I can't do this thing to myself, every time I'm confronted with fractions...

Group B: Alexandra

Alexandra was in her third year at university when she was interviewed. At the beginning of her journey,

Alexandra had severe difficulties with mathematics due to the apathy of her primary teacher; as a result, after finishing primary school, Alexandra had many gaps and gradually developed a negative attitude. At the beginning of junior high school, Alexandra's struggle continued but her aversion to mathematics slowly disappeared:

...during the first and second year of junior high I struggled a lot, because in primary school I had no basis at all... (Why?) My teacher at the time... he was bored teaching us and he didn't do much... so I didn't get any basis in mathematics and when I started junior high, I got too stressed... I started too abruptly, too much knowledge and I got stressed... and at first, I didn't want that, I didn't like it but after a while... I had a very good math teacher who started to made me love mathematics a bit more...

By the end of junior high, Alexandra had developed a healthy relationship with mathematics and she began to enjoy it. During senior high school, Alexandra's attitude towards mathematics underwent a transformation; she felt exposed to a world governed by logic, a language that required from the person practising it to understand its principles and develop a method for applying them when solving problems:

...in senior high, I started to love mathematics... I liked that it was... simple logic that required to develop a method in your head to make it work out in order to do what you want to do... our teacher was very nice and he seemed very passionate about what he was doing and he was happy to teach us and that was evident... and he showed us a little bit of, let's say, the magic of mathematics...

The above demonstrate that Alexandra's developmental trajectory during primary and secondary education was not characterized by dramatic situations or incidents with irreversible consequences. However, Alexandra's exposure to mathematics in junior and senior high school seems to have been of significant developmental importance.

Since senior high school, Alexandra has wanted to study physics and after passing the Panhellenic Exams, she enrolled as a physics major. However, the demanding nature of the course and Alexandra's love of working with children, led her in taking the decision to change major:

...although I really liked physics and its logic... the study of physics required people who liked only physics... and I was a bit more artistic, especially with the children, I had a very big fondness and... I believe very strongly in the educational values... so, I changed my major...

At university, like all prospective primary teachers Alexandra took modules with a purely mathematical content and modules that focused more on the pedagogical aspects of teaching mathematics. Given her love of mathematics, she was excited to attend modules from the first category and chose Geometry, a module that all of her fellow students avoided. It was at this point that, Alexandra realized that, unlike her, the majority of undergraduates did not have the necessary mathematical background. In discussing her overall experience with these two types of modules, Alexandra made a distinction in terms of their usefulness:

The truth is that the two compulsory modules in mathematics education... I don't think they will help me very much in teaching mathematics to children, the content was a bit... it wasn't for me...

(Was it boring?) quite... we were taught games which... I understand their use... that it is important to learn how to use these games too but... it was not something... to show children how to love mathematics, why mathematics is needed in everyday life and... a little bit more complicated things, the module's content was very basic... and I understand that even for these modules, I saw... my fellow students straining too much...

While discussing her experience with these modules, Alexandra described them as "boring" and admitted that she only attended lectures to have access to the exercises solved by the lecturer:

...there were times when... I put my headphones on [listening to music] and just noted down what he was writing on the board which was... very basic... I didn't even have to listen... in the end, the only reason I went to the class was because he [the lecturer] was solving problems that he didn't upload them somewhere else afterwards... and I couldn't get them from anybody else...

Although Alexandra saw mathematics as a way of thinking that is cultivated, at a later stage of the interview she saw her ability to formulate her thoughts in writing as having an innate character and contrasted this with her background in physics and mathematics:

I see in myself a difficulty in writing long texts in assignments, because... while I have done a report like we all did in high school, I don't know, maybe it's because I have a science background and I've learned to think like that? That I too have not cultivated it enough? eh... it's not so easy for me to write long texts, that is, I have a problem with written expression not oral, it's a bit difficult for me to write...

Discussion

Four out of the five themes identified in the data are manifestations of the main mechanism that has caused disruptions and discontinuities in the participants' development: situational thinking. Views about mathematics and its relationship to the teaching profession (theme 1), the nature of mathematical knowledge (theme 2), and the process of learning mathematics (theme 3), reveal participants' exposure to and internalisation of forms that promote narrow and dualistic views of mathematics. At the university, the consequences of situational thinking are observed, as well as its ongoing work in further corroding and damaging the development of undergraduates who will eventually become primary teachers (theme 4). Although our data could not support further analysis and interpretation, the traumatic experiences reported by some participants (theme 5) suggest that additional, non-cognitive mechanisms are also in play and highlight the significant role of emotions in the development of mathematical thinking. Below we unpack the role of situational thinking and further emphasise the complex, dynamic and dialectical nature of development by presenting paradoxes revealed by the juxtaposition of conventional views about "success" and conflicting views of the mediating role of educators.

Situational thinking

The participants' situational thinking was captured by themes 1—4 in the form of (a) an avoidance of complex ways of thinking; (b) a nativist view of mathematics and; (c) an emphasis on operations and procedural knowledge. The limited view of the nature, function and value of the mathematical knowledge that is necessary for primary teachers (theme 1) was expressed by both groups and displays an avoidance of more complex, theoretical ways of thinking. All participants saw the content of mathematics taught at the university as an advanced and unnecessary kind of knowledge, whereas those in group B regarded the didactic side of mathematics as a body of knowledge that is separated and irrelevant to the teaching and learning of mathematics. Regarding the epistemological nature of mathematics (theme 2), participants from group A saw mathematics as an innate endowment, a capacity that only some of us are born with. On the contrary, participants from group B regarded mathematics as a way of thinking that can be nurtured, a process that takes time.

With regard to the learning process (theme 3), all participants adopted an exam-driven approach and reported employing strategies such as memorising theorems and proofs or attending lectures just to have access to problems solved by a lecturer. They described a learning culture that demands immediacy and rejects the effort required to engage meaningfully with mathematics. This approach to learning emphasises operations and procedural knowledge because it shows that participants' focus on the steps required to achieve a goal (either at a micro or a macro level) rather than on a deep understanding of the abstract and general principles of mathematics.

The development of mathematical thinking at the university (theme 4) was a task that remained unrealised for the majority of participants. This was the result of a curriculum that reinforced participants' situational thinking and failed to introduce them to more advanced, theoretical forms of thinking. The participants of group A felt motivated by the practical orientation of some modules' and were repelled by modules that dealt with mathematical content that goes beyond the school curriculum. On the contrary, all participants of group B felt bored and demotivated by modules focusing on "simple" mathematics and most of them preferred to focus on modules with advanced mathematical content.

Given that the transition from situational to conceptual thinking requires fundamental changes in the types of activities with which subjects are engaged [12], it can be argued that throughout their education (primary, secondary, tertiary) the participants were not exposed to activities that could facilitate this transition. This reveals not only the participants' current "imprisonment" in ways of thinking internalised at earlier stages of their development stage but also their continued "imprisonment" in mandatory teaching and learning activities that have been proved to be detrimental to their development. As a result, many participants view knowledge in a static way: they hold the erroneous view that knowledge acquired at an earlier developmental stage (e.g., mathematics learned at secondary school) has the same potential at a present time (e.g., mathematics needed at the university and to become a primary teacher).

Paradoxes
When success becomes a failure and failure becomes a success

As mentioned above, participants in group A have had experienced severe issues and a constant failure with mathematics whereas, participants from group B had encountered minimum or no difficulties at all and have had progressed successfully throughout their education. In this sense, one might expect that the same pattern would continue at the university; however, a closer look at two cases demonstrates the exact opposite, i.e., that students who have always struggled with mathematics may actually make qualitative leaps and transformations during their time at university whereas, students who have done well may not develop at all.

Daphne (participant S07, group A) had a problematic trajectory with mathematics since primary school and was obliged to study mathematics again at the university. When Daphne began to describe her experiences during the first year of her studies, she referred to a crisis: becoming a teacher requires the ability to transform mathematical knowledge into meaningful activities and exercises that would support the teaching and learning of mathematics in a class. For Daphne, this change was more challenging than revising the mathematics behind each exercise because it involved a shift from consuming knowledge to applying knowledge and producing new knowledge in the form of a new exercise or activity.

It was... a bit strange because for me mathematics was equations, it was geometry, it was exercises... at the university it was a bit more about the methodology of mathematics and how to learn to think about the reasoning behind each exercise... because we wouldn't solve them, the children at school would... and it was a bit difficult to learn to think like that... (Which was more difficult?) It was more difficult to prepare something for the students. Knowing how to solve the exercises was difficult at first, but after a while it went well...

Christos (participant S10, group B) described himself as an "excellent student" and mentioned that he had consistently high grades in all subjects throughout his schooling years. At the university, Christos mentioned on two occasions that he had problems with mathematics. The first relates to a module in Geometry; Christos solved the exam paper by relying on the mathematical knowledge he had acquired in secondary school and was expecting his grade to be 10 but he was instead marked with a 7.5 (on a scale of 10). When Christos asked the lecturer about his grade, the lecturer replied that he should have used the methods and tools demonstrated in the lectures:

It was unfair... as long as the problems were solved correctly, there is no reason to be selective when marking, I mean, personally I don't think it's right to... it's unfair in my opinion to a student, although I don't mind if... I got 7.5 or 10, I'm examining this... from a philosophical point of view, I don't think it was fair...

The second occasion relates to a module on probability and statistics. This was the first time Christos had been taught statistics at the university and he found it very difficult to understand this part of the curriculum. He described the module as challenging and questioned the value of statistics in relation to the teacher profession.

I'm doing statistics for the first time; we did not have this subject at school... but... I don't know... in what way this kind of knowledge would be useful to me... this kind of mathematics makes me say, "I'm a teacher, do I really need this?"

Nature or nurture?

In the interviews, we became aware of the echoes that characterise the everlasting nature-nurture controversy: participants in group A took a nativist position on the nature of mathematical knowledge, whereas those from group B regarded mathematics as a developmental process. However, a closer examination of some of the cases draws our attention to an oxymoron: although participants from group A saw mathematics as an innate ability, they simultaneously considered teachers as the most crucial resource in understanding or not mathematics; similarly, while participants from group B regarded mathematical knowledge as a way of thinking that could be cultivated, they also rejected the mediating role of educators by negating any kind of knowledge associated with the teaching praxis. We illustrate the above by presenting extracts from two cases.

Thalia (participant S08, group A) described mathematics as a subject that always caused her anxiety and fear; she attributed her problematic experiences to teachers who were never able to properly support her learning in mathematics. Thalia recalled a dramatic event that happened in junior high school involving her maths teacher:

in the third grade's exams, I did badly in mathematics, although in all the other subjects my grades were perfect... I had studied so much... and I accidentally came across my teacher on the street and he told me... "you know, I didn't expect this from you" and he added "you'll have to work on it, now that you're entering senior high, especially if you want to follow this direction in your studies"... after that, I knew that no matter how well prepared I am in mathematics, I would always have this insecurity...

Thalia attributed this insecurity to her inability to work independently; as she elaborated on this, she indirectly highlighted the fundamental role of an educator in extending her current stage of development to autonomous forms of learning:

...it was stressful for me to solve problems without someone telling me "This is right" and "keep going"... when my teachers were present and I could show them my solution... if there was a mistake somewhere they could tell me "Oops that's wrong" and I would correct it... However, when I solved exercises on my own... I got stuck... while in the other subjects I had no issues at all...

When she was asked to reflect on the root of her insecurity in mathematics, Thalia rejected the role of teachers, dramatic events or other mechanisms that had potentially shaped her development and plainly invoked her innate inclination towards other kinds of knowledge:

No, I just think I'm more of a theoretical mind... that is, I like talking and writing reports more than solving exercises...

Alcestis (participant S02, group B) described mathematics as a way of thinking and expressed her love and deep affection for this subject. Alcestis' relationship with mathematics was mediated by her parents who introduced her into a new world by playing mathematical games since preschool:

I love math from a very young age... before I went to school, my parents and I used to play math games... I really like the fact that I am now at an age where I can easily solve everyday problems, not just math problems... so... there's a way of thinking behind maths that I really like...

Alcestis described her experience at the university with modules focusing on the didactic side of mathematics as boring and monotonous. According to Alcestis, this was a result of the weak mathematical background of her fellow undergraduates, a problem that forced the lecturer to spend time on "basic" mathematics instead of focusing on the module's content. Alcestis felt that these lectures were a waste of time and began to skip classes, causing her grades to drop:

The only motivation I had was to get marks... that made me say "stop, I have to attend the lectures in order to pass the module with a good grade" otherwise nothing, I mean I didn't learn anything new...

This lack of interest was the only obstacle Alcestis faced with mathematics at the university. Ironically, although she used the undergraduate population's lack of mathematical background and grades as a vehicle to justify her exam-driven approach, she acknowledged the mediating role of the lecturer:

I didn't attend the lectures because I knew from the beginning that I was going to be bored... so, I had to study by using only the textbook... it was difficult for me... it wasn't hard it just wasn't the same as being in the lecture and "getting it" from the lecturer...

Conclusion

Far from being an isolated, purely individual endeavour, mathematical thinking is deeply embedded in the wider socio-educational context. At the micro level, the developmental trajectories of individuals in the acquisition of mathematical knowledge are profoundly influenced and shaped by the prevailing social and educational practices. Approaching the development of mathematical thinking as a socially mediated process reveals the intricate complexities and paradoxes inherent in this cognitive journey. This perspective highlights the paradoxes inherent in how individuals engage with mathematical thinking, particularly in the context of the social and educational practices in which they participate. One of these paradoxes relates to the competitive and exam-driven nature of these practices [1]: despite their differences in performance, participants from the two groups converge both in terms of both objective (e.g., denial of alternative or more advanced forms of knowledge) and subjective (e.g., the perception that no new knowledge has been acquired) indicators of their development.

It also highlights how the difficulties in the transition from situational to conceptual thinking in the realm of mathematics are interrelated, among other things, with the wider educational and social practices. The highly competitive and examination-oriented educational system, coupled with the prevalence of narrow utilitarianism and empiricism in both formal and informal curricula, forms a substantial barrier to the development of mathematical thinking. The examination-oriented educational system discourages the promotion of a deeper understanding of mathematical concepts and the development of mathematical thinking. In parallel, the utilitarianism in mathematics education, which emphasizes practicality and real-world applications, can inadvertently restrict students from exploring the creative and theoretical dimensions of mathematics and hinder the transition from situational to conceptual thinking.

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Constructive Functions of Dreams: From a Theoretical Model to an Empirical Validation. Part 1

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The article presents a description of the theoretical model of dreams and constructive dreaming, developed by a team of authors (Osin E.N., Kedrova N.B., Egorova P.A.). The dreaming is considered by the authors as a phenomenon of culture. The article provides a brief comparative analysis of the content of the concepts of "dream" and "dreaming" in English-speaking and Russian-speaking cultures, and also shows the differences in psychological approaches to understanding dreams and dreaming, depending on the cultural context. The paper provides definitions of dreams and constructive dreaming, discusses in detail the genesis of a dream, its content and types, as well as the positive functions of daydreams and constructive dreaming in the regulation of mental activity: development of intrinsic motivation, orientation in the decision-making process, development of a future time perspective, development of values-based motivation, support of psychological well-being. Based on the theoretical model we formulate the hypotheses for an empirical study of the positive functions of dreams and constructive dreaming. The results are presented in the second part of the work.

Keywords: dream, dreaming, constructive dreaming, functions of dreams, self-regulation, self-determination, psychological well-being, personality growth.

Конструктивные функции мечты: от теоретической модели к эмпирической валидизации. Часть 1

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В статье представлено описание теоретической модели мечты и конструктивного мечтания, разработанного коллективом авторов (Осин Е.Н., Кедрова Н.Б., Егорова П.А.). Мечта рассматривается авторами как феномен культуры. В статье проведен краткий сравнительный анализ содержания понятия «мечта» в англоязычной и русскоязычной культурах, а также показаны различия психологических подходов к пониманию мечты и мечтания, в зависимости от культурного контекста. В работе приводятся определения мечты и конструктивного мечтания, подробно обсуждаются генез мечты, ее содержание и виды, а также позитивные функции мечты и конструктивного мечтания в регуляции психической деятельности: развитие внутренней мотивации, ориентировка в процессе принятия решений, развитие временной перспективы будущего, развитие ценностного содержания мотивации, влияние на психологическое благополучие. С опорой на теоретическую модель формулируются гипотезы эмпирического исследования о позитивных функциях мечты и конструктивного мечтания, результаты которого представлены во второй части работы.

Ключевые слова: мечта, процесс мечтания, конструктивное мечтание, функции мечты, саморегуляция, самодетерминация, психологическое благополучие, развитие личности.

Introduction

Daydreams and daydreaming are among the events of inner life that are the most vivid and, at the same time, the most intimate and hidden from the observer [39; 43; 46]. A rather negative attitude to daydreaming has developed both in psychological science and in pedagogical practice [39; 43; 44; 46]. Teachers saw it as a cause of inattention and learning failures; psychologists often regarded daydreams as an infantile way to release tension and escape from the complex reality into fruitless but comforting fantasies [46].

Daydream-derived thoughts and images often accompany external activity and occupy, according to various data, up to half of the time spent awake [39; 43; 44]. However, until recently, relatively few experimental studies have been dedicated to daydreams and daydreaming [10; 44; 48]. The systematic studies of daydreams and daydreaming processes, conducted in the 1950s by a group of scientists led by J.L. Singer, convincingly demonstrated the positive properties of daydreams that were also confirmed in later works [39; 46; 43]. Yet most modern studies still consider daydreaming as a source of erroneous actions in experimental situation as well as everyday life, mood worsening, and deterioration of a person's emotional state [43; 44; 49]. Meanwhile, the high prevalence of daydreaming and its often-high subjective significance raises a legitimate question for researchers about the adaptive functions of daydreams and daydreaming and

their role in the regulation of mental activity. Over the last 20 years, more and more works have appeared demonstrating the positive role of daydreams and daydreaming in self-regulation processes; however, their functions have not been studied sufficiently [44].

Many authors have questioned the positive role of daydreaming due to not accounting for the complexity and heterogeneity of the phenomenon [43; 10]. The identification of constructive daydreaming as a special type of daydreaming, one that is directed into the future, allowed us to indicate a number of its positive functions such as future forecasting, long-term planning, emotional regulation, experience processing, and development of creativity and self-reflection [39; 46; 43; 32; 44]. People who have a tendency towards constructive daydreaming demonstrated an openness to new experience and a willingness to notice the positive aspects of life [53; 51; 34]. Constructive daydreaming was shown to be linked to striving for personal growth, having a purpose in life, and positive emotions; it also predicted one's authenticity being experienced more fully, as well as one feeling self-alienated to a lesser degree [32; 52]. Constructive daydreaming has shown to play an important role in vocational self-determination [31]. Research findings also attest to a positive influence of constructive daydreaming on the level of psychological well-being of the individual [32; 43]. At the same time, there are very few studies of constructive daydreaming, creative daydreaming about the future, and their influence on human consciousness and activity [44;10].

Another complication of studying daydreams and daydreaming arises from the fact that a daydream is a cultural phenomenon. The ideas about the essence of daydreams and daydreaming are inseparable from the specific culture and linguistic environment in which they emerged and developed.

The present article is a continuation of a series of empirical studies on the positive role of daydreams and daydreaming in the regulation of mental activity [12; 13]. In the first part of the article, we present the author's theoretical model of the study, which is based on the traditions and ideas of the cultural-activity approach and relies on the results of research conducted by J. L. Singer, J. S. Antrobus, E. Klinger, their students and followers (the situational approach to the study of daydreams and daydreaming; for more details see [10]). The first part of the paper also provides a brief comparative analysis of the perceptions of daydreams and daydreaming in different cultures, mainly Western European, American (English-speaking) and Russian. The second part of the paper is dedicated to the results of an empirical study of the positive functions of daydreams and constructive daydreaming conducted by the authors on a Russian sample.

Daydream as a cultural phenomenon

A brief comparison of the concept "daydream" in different languages allows us to see significant differences in the way people of different cultures understand daydreams. For example, the word "dream" in English language and the word "traum" in German mean both a daydream and a sleeping dream at the same time, and their multiple meanings form 2 groups: 1) the thoughts and feelings one has in a dream and 2) a strong desire. Daydream and dream are also homonymous in Spanish ("sue o") and Italian ("sogno"), both derived from the Latin "somnium" (daydream, dream). French, Arabic and many other languages also use the same word for a daydream and a dream [16].

It is not surprising that in the English-speaking psychological literature researchers pay attention mostly to the common properties of daydreaming (or a "day dream") and dreams that occur when a person is asleep: namely being fleeting, changeable, often lacking coherence and logic, fantastic and involuntary [39]. Dreaming during the day, as well as dreams at night, are part of the general stream of consciousness representing internal stimulation, which is perceived and experienced in parallel with external events when awake [46].

Meanwhile in Slavic languages a daydream and a dream are not homonyms. The etymology of the word *мечта* ("a daydream") goes back to the verbs "to flash, squint, shimmer, sparkle". G.A. Ilyinsky stated that "the 'center of meaning' of the word *тъ ъta* was 'something (indefinitely and vaguely) flashing or shimmering': from such a meaning could equally easily develop both 'ghost, vision, obsession' and 'fantasy, indefinite and vague thought'" [quoted in 5]. M. Fasmer said that in the folk speech the word "daydream" meant "vision, ghost, mind", and the word "m'chutati" in Old Russian stood for "to dream, to imagine". The etymologist also claims that the words *мигать, прищуривать, мерцать, сверкать* ("blink, squint, shimmer, sparkle") are related to the word *мечта* as well [27]. According to O.N. Trubachev and colleagues, who provide the most detailed list of meanings of the word *Мьсъta*, the latter belongs to the category of words "the semantic content of which changes with the change of culture" [30, p. 90].

We can conclude that a daydream is experienced in the Russian lexical field as something vague, undefined, impossible and at the same time desirable, aimed at the future. The daydream is unfulfilled, but its image fascinates and beckons one like magic, giving him or her hope to achieve happiness.

Although this concept of daydreaming can be found in different cultures, it is especially significant for Russian culture: it is not by chance that in Russian classical literature we find so many dreamer characters. On the one hand there are inactive daydreamers such as Oblomov and Manilov, who seek to avoid even the most insignificant effort of action and immerse themselves in pleasant daydreams instead. On the other hand there are heroes who daydream of a better life and a better, fairer world, agonizing over the gap between the ideal world order and the surrounding reality. Among such characters we may recall Alexei Karamazov, Eugene Bazarov, Klim Samgin and many others in Russian literature. The ability to daydream is associated not only with joy and pleasure, but also with the risk of disappointment and pain from the loss of daydreams that

have failed to materialize. Despite this, people still dare to daydream, and the image of a daydreaming literary hero is often seen by the reader as more sublime, and his life and actions as more complete, endowed with greater meaning and awareness.

Sociologists, culturologists and philologists emphasize the special role of a daydream in Russian culture and highlight a number of its distinctive features: the social orientation of daydreams (a fair social order as one of the main themes of the Russian dream); the perceived gap between the daydream and the reality; the commitment to the daydream; the ability of Russian people to give themselves entirely to the idea of the common good, sometimes going to an extreme [17; 18; 26]. The Russian "sublime dream" connects the achievement of a personal well-being with the establishment of justice and equal opportunities for all people — that is, with the change in society [26].

Given the cultural specificity of the concept of a "daydream", it is not accidental that in works written in Russian language the object of research is the daydream as a product of creative imagination, its place in the structure of activity, and its value character [9; 25; 31]. For example, according to B. I. Dodonov, one of the important functions of a daydream is to project a person's future attitude to the world, which is then developed and refined in the process of playing out personally significant situations in one's imagination. At the same time, the subsequent events are then seen and evaluated by a person through the prism of his daydream [9]. In the dissertation study by T.A. Yurieva it was shown that a daydream about one's professional future is effective if it embodies personal values; at the same time daydreams about the future that are not related to any values have no motivating force [31]. Studies of the content of Russians' daydreams also show a large share of altruistic daydreams, which, according to different data, make up from 9% to 12% of all respondents' answers [26].

Thus, the special role of the daydream in the Russian cultural field is determined by the value-related character of the daydream, its reference to the future and its social orientation.

Theoretical model of the study

Definition of daydream and constructive daydreaming

The author's theoretical model of daydream (developed by E.N. Osin, N.B. Kedrova and P.A. Egorova) is based on the ideas of a daydream as a product of creative constructive daydreaming directed into the future [10; 13; 12]. Following on the ideas of the cultural-activity approach, we define a daydream as an image of the desired future upon which the subject places a special value [7; 6; 25; 9; 3; 31; 11]. Based on the idea of constructive daydreaming, we assume that by daydreaming, a person conceptualizes himself/herself and creates within a daydream a holistic image, an ideal form of his or her intentionality. This daydream image integrates the most important values, goals and motives of a person's life path and becomes a special

psychological reference point in the structure of one's mental activity. In this sense, a daydream, being exactly an ideal project and reference point, has an independent value and, unlike a desire, does not require immediate and full realization; it is associated with deep value-based emotional experiences and expresses the integrity of a personality [13]. A daydream motivates a person, directs his or her activity and gives meaning and value to human actions, emotionally coloring the choices made by him or her [12; 10].

A daydream, being a holistic *image* of the desired future, is built of three structural components: the fabric of sensations (sounds, smells, tastes, tactile and visual sensations), the sense (the content of the daydream) and the personal meaning (the emotional coloring of the daydream and its place in the hierarchy of personal motives) [4]. The role of a constructive daydream in the life of an individual can be characterized through the concept of experience introduced by L.S. Vygotsky as a generalized attitude of an individual to his or her future [23]. A daydream does not appear overnight; we assume that the process of daydreaming gradually becomes an independent activity that accompanies a person's daily life and highlights, preserves and develops the most important aspects of his or her existence in the world for the purpose of development and realization of personality [6; 7; 9; 43; 46; 39; 38]. These most valuable desires, images, emotions, ideals, and abilities are gradually integrated into a single image and projected into the future, creating a unique perspective of the individual's life path, the author of which is the person himself/herself. Thus, we assume that the presence of a mature daydream directs the future development of the individual. This understanding of daydreams is rooted in the Russian cultural tradition [26] and partially overlaps with the construct of "possible selves" [42].

Emergence and development of daydreams in ontogenesis

The existing theoretical ideas and empirical data allow us to believe that daydreaming starts in the older preschool age (5-6 years), because it is at this time that the need to master future social roles arises, along with the development of goal-setting and internal action planning, and formation of worldview and moral consciousness [29; 2; 24; 11]. Analysis of the adolescents' and adults' self-reports shows that the first memories of a daydream or a dream-like favorite game belong to an age of 5—6 years old. According to J. S. Singer, the origins of daydreams can be first seen in story-based role play which develops most intensively at the older preschool age [29; 46]. Daydream and daydreaming become important phenomena in the inner life of adolescents, which is consistent with the tasks of this period such as creating an image of the future and one's place in it, planning personal and professional perspectives and life path, and mastering adult roles. Studies have shown the influence of adolescent daydreams on real life choices in the future and the connection of the ability to daydream with successful social adaptation [13]. The social situation of development of preschool and adolescence contributes

to the emergence and development of daydreaming. Thus, preschool age is the time of mastering the motives of human activity. The child cannot yet carry out this activity in reality, but he or she is perfectly capable of imagining it. Adolescence is the time of choosing a life path, when a teenager, at least in approximation, needs to imagine the desired future, daydream about it, and only then choose his or her path.

According to Newton, daydream formation provides a psychological basis for the realization of major life choices in early adulthood, evaluating one's achievements in middle age, and giving shape to one's legacy in old age [38]. D.J. Levinson [ibid.] associates harmonious development of personality with the formation and realization of daydreams.

However, the peculiarities of daydream development at different ages require further study.

Daydream content
The question about the content of daydreams may also prove interesting: how is this or that ideal image of the desired future born? The emergence of daydreams is often associated with a feeling of frustration, when a person, due to various reasons, cannot fulfill his or her desire or satisfy a need [46; 9]. A daydream in this case allows him or her to release tension, feel positive emotions and escape from an unpleasant situation at least in imagination. But is it only the compensation of frustration that constitutes the contents of a daydream?

We hypothesize that the daydream image reflects not only the most important motives, personality values, and frustrating situations that a person experienced in childhood or later, but also his or her abilities and sensitivities in a certain area. This assumption helps explain why the daydreams of people who find themselves in similar life situations will differ. For example, when faced with injustice, some people will daydream of a just retribution and imagine themselves as heroic fighters, while others will daydream of everyone's right to be sympathized with.

The uniqueness of a daydream is connected with its integrative character. The daydream image reflects both the phenomena of the inner world (one's motivation, abilities, goals, aspirations, values, events of the past, present and future) and elements of the outer world (the context, situation and time in which a person lives). It is the possibility of such integration of subjective and objective, external and internal, past, present and future elements that allows daydreams to play an important role in the regulation of mental activity.

Types of daydreams
While not claiming the list to be exhaustive or complete, we further present the phenomenological descriptions of the 5 types of daydreams and their putative functions.

A hedonic daydream is a daydream that brings pleasure in a "here and now" situation. Its main function is to improve one's mood and support his or her emotional state. For example, during a boring working day, when it is cloudy and cold outside, a person can daydream about going to the sea and basking in the sun, alone or surrounded by close people. Such daydreams can be called pleasant fantasies or reveries. They usually arise in a situation of low frustration, improve the mood after daydreaming, are usually not repeated and are quickly replaced by other experiences of the day.

A compensatory daydream. When a person experiences a wide gap between his or her needs or values and reality, a daydream is designed to compensate for this gap and to significantly reduce the level of frustration. For example, daydreams of fame, success, and a fair society in adolescence are often compensatory in nature, when young people, on the one hand, feel the potential of their abilities and, on the other hand, doubt themselves and are starkly aware of their own shortcomings as well as the failures and imperfections of the world. Compensatory daydreaming in this case also performs another important function, as it allows one to protect the personally significant motives and values until the situation becomes more favorable for their realization. Compensatory daydreaming is an extremely important mechanism for when a person is confronted with intolerable experiences in an unescapable situation. A prime example would be the splitting that characterizes children and adults subjected to psychological or physical abuse and other forms of traumatic treatment. Unfortunately, this level of splitting often affects an individual's mental health.

Thus, compensatory daydreaming differs from hedonic daydreaming in the strength of frustration that a person experiences and the repetitiveness of the daydream theme. In addition, compensatory daydreaming is more characterized by a higher level of absorption in the daydream and the experience of loss of connection with reality, sometimes to the point of dissociation of various parts of the personality. Returning to reality after compensatory daydreaming usually proves disappointing, which leads to a decrease in emotional background. Compensatory daydreaming makes the situation tolerable, but does not significantly change it.

A constructive daydream is an image of the desired future and of one's self in it which has value for the individual. Constructive daydreaming is characterized by a positive attitude to the daydream and a belief in its feasibility. A constructive daydream is not necessarily realistic because, as we have mentioned, it shows an ideal form of the desired future and does not require immediate full realization. For example, the daydream for people to never get sick nor die that may have arisen as early as preschool age will then motivate a teenager, and later a young adult, to become a scientist or a doctor. The daydream for people to not fight nor hurt each other might lead one to become a social activist or a psychologist. The daydream of a just society may become foundational for a future philosopher or sociologist. Thus, a constructive daydream is a reference point for forming values and finding meaning of life; it also performs a motivating function, supporting the activity aimed at the realization of the daydream. The functions of constructive and compensatory daydreams are

similar in the situations when the daydream realization is impossible (young age, limitations of freedom, lack of resources), as both types of daydreams preserve important aspirations of the personality. However, as soon as conditions become favorable, the differences between these types of daydreams become apparent. If the daydream fulfills a compensatory function, it remains in the zone of fantasies and reveries. In the case of constructive daydreaming, the person takes action aimed at the realization of the daydream.

Dream-play and *dream-reflection are* similar in some ways. In both cases, the play or reflection unfolds in the inner plane and is presented in the form of daydreams and fantasy play. Such daydreams often include fantastic plots that are impossible in reality. An example of a *dream-reflection* can be an imaginary dialog with the outstanding personalities of the past (writers, artists, poets, composers), whose actions, reflections or creativity had a great influence on the daydreamer. *Dream-play* allows one to freely interact (play) with external and internal events, often discarding the principle of reality.

*Positive functions of daydream
and constructive daydreaming*

Following J.L. Singer, J.S. Antrobus, E. Klinger, J. Smallwood, L.S. Vygotsky, S.L. Rubinstein, L.I. Bozhovich, B.I. Dodonov, T.A. Yurieva, and others, we consider daydreaming and constructive daydreaming to be an adaptive process with a number of important functions for self-regulation [7; 9; 39; 46; 43; 44; 25].

Developing intrinsic motivation

Generalizing the accumulated data and using the cultural-activity approach as basis [6; 7; 25; 9], we assume that daydreaming is a new formation of personality, the main adaptive function of which is the creation and development of future perspectives on the basis of clarification and integration of motivational formations of personality. It is not a coincidence that the peak of daydreaming frequency, according to J. L. Singer's research [46], falls on adolescence, when the time perspective expands and the subject's reflection of his or her values and motives occurs. We believe that a constructive daydream is a unique psychological cultural tool (a concept introduced by L.S. Vygotsky [8]) by which an adolescent, forming an image of the desired future and the best possible self, masters his or her motivation and in a sense becomes the author of the path of his or her development. The daydream which he or she has created sets the vector of behavior and gives his or her actions direction and meaning [6]. In K. Levin's terms, the adolescent's behavior is organized and goes from reflecting the field to reflecting the volition [14]. In the framework of S. Muddy's concept [40; 19], daydreams and constructive daydreaming are associated with the realization of psychological needs of the person in symbolization, imagination, and judgment, contributing to making a choice in favor of new opportunities rather than preserving the status quo.

We assume that the development of constructive daydreaming is associated with the awareness of one's own motivation [39; 12] and the reliance on internal, personally significant motives and goals, as opposed to external goals and aspirations. A clear understanding of one's needs, desires, and values will, in turn, promote greater autonomy, belief in one's capabilities, and the experience of meaningfulness and authorship of one's life. Thus, the development of daydreams accompanies the development of personality [10], the formation of self-determination and integration of motivation [45].

Orientation in the decision-making process

Daydream participation in the processes of regulation implies its influence on the processes of decision-making and life choice. In the work devoted to the study of the relationship between daydreams and choice, we assumed that "daydreams and choice meet at the point of possible future: daydreams help to create certainty and build a possible future, and choice — to create it, forming an individual life style" [12, p. 3]. However, the mechanisms of this influence are not yet sufficiently clear. It might be that a daydream, as an image of the desired future and a value reference point, allows a person to better realize his or her own desires, values and meanings. As part of the process of self-determination [15], daydreaming guides choices and influences the emotional evaluation of decisions and actions [12].

Developing a temporal perspective of the future

The category of time allows us to draw an important difference between a constructive daydream and a fantasy, one that was emphasized by J. Niva [21]: a fantasy leaves a person outside of the flow of time, whereas a constructive daydream is always connected with experiencing it (cf., for example, the unchanging life of the inhabitants of Oblomovka and the dynamic life of Andrei Stoltz from I.A. Goncharov's novel "Oblomov"). No matter how fantastic a constructive daydream is, it is always correlated with reality and takes into account the existential fact of the flow of time, acting as a fundamental project of personality [1]. However, it is only in a daydream, thanks to its fantastical nature, that a person is free to go beyond the limitations of reality and feel, experience to the extreme what is valuable to him or her.

Considering the constructive daydream as a projection of one's self and ideals into the future, we believe that the daydream also integrates the contexts of the past (what one values in oneself and one's past) and the present (the environmental opportunities one sees around oneself). In F. Zimbardo's model of temporal perspective, a balanced temporal perspective is seen as the ability to link and flexibly engage the contexts of past, present, and future according to the demands of the situation and the needs and values of the subject [33]. We hypothesize that constructive daydreaming and daydream imagery, integrating all 3 temporal aspects of experience, will contribute to the development of a balanced temporal perspective.

Development of the value content of motivation

The daydream projects into the future, both from a personal and a social perspective: the daydream reflects

not only what is important for a person situationally or in a more or less close perspective (this is characteristic of daydreaming in the broad sense as "mind-wandering" [39; 46]), but also social values (justice, equality, peace, beauty and harmony, etc.). This value aspect of the daydream phenomenon is practically not studied. Most foreign authors, until recently, chose the influence of daydreaming on cognitive processes as subject of research, practically excluding the motivational and value spheres [see, e.g., 43; 44], while in domestic science there are very few studies of daydreams in general [31; 10].

B.I. Dodonov suggests that the altruistic orientation of personality is not fully realized in real activity and "lives" in daydreams. In addition, he refutes the idea of a daydream as only a release of tension. According to B.I. Dodonov, by transferring the solution of a difficult situation from reality to imagination, a daydream fixes a new goal in consciousness: it does not simply ease tension, but, on the contrary, it creates new difficult tasks, challenges the person [9].

Such an understanding of daydreams corresponds to the theories of personality development as a movement from homeostasis to heterostasis [22] and transition from need regulation to value regulation [20; 28]. Developing these ideas, modern models of positive personality functioning distinguish between hedonia and eudaemonia as two types of motivation and their corresponding states with qualitative specificity [36; 50]. Hedonic motivation is aimed at satisfying needs and maintaining homeostasis and manifests itself in experiences of pleasure and satisfaction. Eudemonic motivation, on the contrary, is associated with overcoming, personal growth, search and realization of meaning and manifests in experiencing interest. In other words, eudaemonic motivation is associated with tasks that require exertion and effort [36]. We assume that the expression of constructive daydreaming is associated with eudaemonic motivation.

Effects on psychological well-being.

Finally, one of the criteria of the positive nature of daydreaming may be its relationship with psychological well-being, shown in separate studies [32]. Studies on the relationship between daydreams and everyday goals show that achieving goals that approximate the image of the best possible self is positively related to the level of psychological well-being [35]. Some studies showing a decrease in happiness after daydreaming [37], as well as a negative relationship of daydreaming frequency with life satisfaction [41], do not take into account the heterogeneity of the daydreaming phenomenon.

The study of different daydreaming styles by J.L. inger showed a positive relationship between positive constructive daydreaming and the level of psychological well-being, with negative or absent relationships for other types of daydreaming [32].

In addition, the decrease in the level of happiness after daydreaming as a situational effect does not contradict the assumption about the connection of constructive daydreaming with psychological well-being at the level of personal dispositions. Since a daydream, unlike a wish, cannot be realized immediately, the process of daydreaming is associated with the experience of a gap between the daydream and reality and requires the personality's ability to withstand this tension [28]. This assumption is consistent with the data on the positive relationship of daydreaming with the capacity for delayed reward with children and adults [46; 47].

We assume that unformed or unrealistic daydreams will lead to difficulties in understanding one's desires, building a perspective of the future, and making important decisions in life, as well as, consequently, to an increase in the level of anxiety. At the same time, the absence of daydreams and loss of faith in their achievability will be associated with an increase in depressive states, which are experienced as a loss of hope and the impossibility of a "good" future [13].

Thus, in the context of daydreams, a person does not necessarily experience only positive emotions, but the very presence of a daydream, belief in its usefulness and feasibility should be associated with psychological well-being.

Conclusion

Thus, a constructive daydream is a product of the process of creative daydreaming about the future, which serves a number of positive functions in the regulation of mental activity. We assume that the study of daydreams and constructive daydreaming will allow us to see their contribution to the development of internal motivation, personal autonomy, feeling of meaningfulness of one's life and actions, as well as time perspective. We also assume that the daydream, performing an orienting function, will participate in the emotional and value regulation of activity, influencing the decision-making process [12]. Finally, we hypothesize that the presence of a daydream, the belief in its usefulness and possibility of its fulfillment contribute to a higher level of psychological well-being of the individual. The second part of this article is devoted to the description of the empirical study and verification of the formulated hypotheses.

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EDUCATIONAL PSYCHOLOGY
ПСИХОЛОГИЯ ОБРАЗОВАНИЯ

Cultural-historical Approach to Preschoolers' Dance Creativity: Problems and Solutions

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The problems of the theory of dance creativity of preschoolers are analyzed from the standpoint of a cultural and historical approach. As methodological support for the analysis, we used the views of L.S. Vygotsky and his followers on children's artistic creativity, on the nature of dance and dance expressiveness, on the peculiarities of music in dance. Based on this, we analyzed three theoretical approaches to the development of dance creativity of preschoolers, and described their differences and partial mutual influences. The system of provisions of cultural and historical psychology as a methodological basis indicates ways to solve the problems of the theory of dance creativity of preschoolers, which should be figurative and meaningful, thanks to the development of the expressive language of dance, reflecting the features of the musical image and real events, relationships, experiences through the embodiment of different characters.

Keywords: cultural-historical approach; dance, dance image, dance creativity of preschoolers, performing creativity, compositional creativity.

Культурно-исторический подход к танцевальному творчеству дошкольников: проблемы и решения

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Проблемы теории танцевального творчества дошкольников анализируются с позиций культурно-исторического подхода. В качестве методологических опор для анализа рассматриваются взгляды Л.С. Выготского, его последователей на детское художественное творчество, природу танца и танцевальной выразительности, особенности музыки в танце. Исходя из этого рассматриваются три отечественных теоретических подхода к развитию танцевального творчества дошкольников, показаны их различия и частные взаимовлияния. Система положений культурно-исторической психологии как методологическая основа указывает пути решения проблем теории танцевального творчества дошкольников, которое должно носить образный и осмысленный характер, благодаря освоению выразительного языка танца, с отражением особенностей не только музыкального образа, но и реальных событий, взаимоотношений, переживаний — через воплощение образов разнохарактерных персонажей.

Ключевые слова: культурно-исторический подход; танец, танцевальный образ, танцевальное творчество дошкольников, исполнительское творчество, композиционное творчество.

Introduction

Considering the dance creativity of preschoolers, today it is timely to talk not only about its importance in the psychophysical development of children, but also about the problems of its development — first of all, the theoretical foundations that determine the methodology of working with children. The solution of these problems is associated with going beyond the system of musical education of children into the broad cultural context of dance art with the use of the cultural-historical approach as a methodological tool both for the analysis of existing theoretical positions and the basis for the creation of a general theory of dance creativity of preschoolers.

L.S. Vygotsky [13] spoke of the importance of "guidance" in scientific research so that the accumulation of material is fruitful, by providing an opportunity to "critically coordinate heterogeneous data, systematize disparate laws, comprehend and verify results" [ibid]. Following K. Marx [31] he had pointing to the methodological principle of the "reverse" method, the essence of which is the cognition of the "lower" through the "higher" [13]. Using this principle, Vygotsky considered the cultural and historical development of man as the key to understanding the development of the child's higher psychological functions. Similarly, the cultural and historical development of dance as an art can be seen as the "key" to understanding the dance creativity of preschoolers.

L.S. Vygotsky formulated several provisions on the development of imagination and creativity in childhood [10], which is considered as an integral part of the methodological basis of the theory of dance creativity of preschoolers. And although the issues of the development of this type of children's creativity have never been considered in the cultural-historical concept before, but this concept allows us to test these perspectives by opening "... new horizons of cultural-historical and activity psychology", with the identification of implied, but not yet highlighted assumptions, with the formulation of new questions, "required in the logic of the concepts" [39, c. 103].

Proceeding from the said, we will consider three theoretical approaches to understanding the dance creativity of preschoolers, developed in our country in the twentieth century, one way or another are influencing the modern theory and practice in this direction of domestic preschool education [22; 23]. The method of "Musical Movement" (S.D. Rudneva et al.) [36] was born in the early twentieth century. The later, "traditional" approach (N.A. Vetlugina [4; 7]), began to develop in the 60s and took a dominant position until the end of the 90s, and retained its influence until now. The third approach — the author's [18; 20; 21] — was formulated in the 80s.

The analysis of these approaches to the development of preschool children's creativity in dance detects their advantages and disadvantages, the undeveloped of methodological foundations inherent in each of them, which is why there is absent a full-fledged theory of children's dance creativity [22].

Let's outline some decisions of the problems in the theory of preschoolers' dance creativity on the methodological basis of cultural and historical psychology. At the same time, the supporting positions for analysis in the "methodological coordinate system" will be: 1) children's artistic creativity, 2) the nature of dance and 3) music in dance.

Children's artistic creativity

A brief definition of creativity is an activity in which something new is created (a material product, a building of the mind, a feeling) [10, p. 6] on the basis of combining elements of known experience into new combinations [10, p. 11].

When considering children's artistic creativity, it is worth relying on the provisions of the psychology of art (L.S. Vygotsky), the main issue of which is the connection between emotions and imagination [16], determining the choice and association of elements of personal experience into new images on the law of the general emotional sign [10]. The emotional connection between reality and imagination is two-sided: the senses influence the imagination, and the imagination influences the senses [10, pp. 14—15, 25]. Under the influence of works of art, strong feelings are awakened in those who perceive them, which are almost not expressed outwardly; such a "delay in external manifestation" is a characteristic symptom of artistic emotions while retaining their extraordinary power, which "are resolved mainly in images of fantasy" [16, p. 201].

L.S. Vygotsky speaks of the artistic experience [perezhivanie] not only of the spectator, the listener perceiving works of art, but also of the experience [perezhivanie] of the creator, in particular the actor, calling his activity "a peculiar of creativity of psychophysiological states" [14, p. 321]. Since the time of D. Diderot [40] and long before him [24], the question has been discussed: should an actor experience the roles performed in order to evoke the viewer's experiences? [14, p. 321]. L.S. Vygotsky emphasizes: the actor's experiences are "... part of the complex activity of artistic creativity" [14, p. 323], they are a fact of art, included not so much in an individual psychological as in a socio-psychological context: an actor on stage creates generalized emotions, cleansed of everything superfluous as a result of the process of artistic forming, which become "the emotion of the entire theater hall", since they are in tune with the moods of broad public circles, act as a "crystallized design" these moods, a means of their awareness and artistic refraction [14, p. 324; 20].

Works of art evoke real feelings also because they have a logic in *image development*, reflecting the external world of real life in the imaginary world of the work [10, p. 18—19].

Creativity is observed even in young children; it has a subjective significance: it is important for the child to exercise his creative imagination for his overall development and maturation [10, p. 7]. It is necessary to develop creativity from childhood; and it's important to start it as early as possible [3; 10; 23]. Involvement in creative activities is "quite natural for a child and ... meets its needs and capabilities" (B.M. Teplov [38]), so it is necessary to involve all children into a creativity, not just the gifted.

It is worth emphasizing, that material children's artistic creativity are impressions from the child's personal experience — *images reflecting the phenomena of reality* in terms of their cognition and emotional experience [27; 38][1].

The "root" of children's creativity is play [10; 12]; their common features are their improvisational nature, connection with experiences, and the use of the simplest means of artistic reflection of reality on the basis of mastering the signing, symbolic function [12; 20]. Vygotsky sees in play the best form of organizing emotional behavior: with all the vividness of experiences, the child learns to reconcile them with the rules of the game in an imaginary situation [15, p. 131; 12]. In the game a double affective plan occurs, and the child experiences emotions akin to those of an actor: he cries as a patient, but rejoices as a playing [12]: Vygotsky points to dramatization as the closest to a game type of children's creativity, where there is realized the motor character of the children's imagination: the images of the personages are portrayed by the child actional, "through the medium of own body" [10, p. 63], and imagination describes a full circle — from isolating and combining elements of reality to creating new images [23], in which intellectual and emotional factors are mutually necessary for creativity [10, c. 16].

The search for ways to form children's artistic creativity leads to an understanding of the importance of children's learning the language of the corresponding art, which can be achieved at the purposeful teaching of composition techniques and a combination of educational and creative moments, with the possibility of early formation of the child's attitude to creativity and the need for it (B.L. Yavorsky, B.V. Asaf'ev, K. Orff, L.A. Barenboim) [20, pp. 12—13; 18]. At the same time, B.V. Asaf'ev [3], speaking of children's musical creativity, differenced "a creativity-reproduction" and "a creativity-performance", which can also be applied to the dance creativity of preschoolers.

The language of movements, the nature of dance, dance expressiveness

Movements born in real life, reflecting the emotional states of people and being a means of their communication [34], became, even in the "pre-verbal period" of man's historical development, the primary basis of the expressive language of dance [5]. In ancient dances there was reflected events (hunting, war, labor processes) with the help of pantomime, rhythmic exclamations [28]. K.Ya. Goleizovsky emphasized that dance is not a set of techniques and virtuoso movements, but "a consciously developing in front of the viewer story on a certain topic with a plot, a retelling of events of real life" [17, p. 317]. In ritual and cult dances, movements with aesthetic coloring and symbolic, magical meaning were used, and so the lexis of the dance began to acquire its own originality [28].

Throughout the history of the development of the art of dance, separate expressive movements have been generalized, sharpened, and isolated from the concreteness of everyday life, giving dance more and more originality in the plastic expression of the image [5; 25]. The main factors influencing the development of the dance language (as the history of ballet shows) include: the theme of the ballet, which reflects reality and is refracted in the dramaturgy of the performance, as well as the music, which determines its emotional and artistic basis [29; 32].

The development of new thematic material is the driving force in the development of ballet art: during its heyday, new content was embodied, had stimulated the development of the language of dance. And in the periods of decline, performances were characterized by the impoverishment of plots and figurative content; the dance lexis was replenished due to technical techniques for the sake of spectacular effect, demonstration of the performer's dexterity. It was only later that these techniques became the material for a new system of images [29].

The lexis of ballet is dance and pantomime; their primary basis is real life movements [5; 25], expressive movements, that is, the outward manifestation of emotions and a means of communication between people [34]. However, in contrast to pantomimic, dance movements are less similar to everyday ones, they are more conditional because of the generalized, "pointed" form developed in the course of historical development. In turn, pantomime in ballet also undergoes changes: it becomes danceable and rhythmic [25].

The ratio of dance and pantomime in ballet and their role in the development of the plot was changing. In the old ballets (18th century) pantomime moved the plot, helping to embody dramatic conflicts. Dances unfolded in the course of the plot: at a ball, during a celebration or procession. In the era of romanticism, dance began to develop as an effective one: it came to the fore and turned into a conventionally poetic language for expressing the feelings and characters of the characters, especially in the culmination of dramatic action. The dance's heyday flourished at the end of the 19th century (M. Petipa's ballets): the feelings of the characters were summarized

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[1] There is no doubt about this when it comes, for example, to children's visual activities, however, in relation to the dance creativity of preschoolers, such a statement of the question is not obvious to everyone.

in large dance ensembles, and pantomime scenes explained the plot. At the beginning of the 20th century, reformed choreographers (M. Fokin, A. Gorsky) tried to create a choreography in which dance was filled with mimic expressiveness, and pantomime was imbued with the dynamics of dance (the principle of choreographic drama) [25]. Their views were greatly influenced by the art of A. Duncan [9; 26], which enriched the lexis of the new dance due to the natural positions of feet and the free drawing of the hands. This made it possible to bring closer the conventionality of the dance and the everyday gesture in the ballet performance: the dance was freely born out of pantomime, emotionally and aesthetically developing the theme set in it [25].

As the dance moves became more and more conventional, they did not become meaningless "schemes", but in each of them one can see a more or less generalized meaning. "The movement carries a certain content, has only its inherent own imagery, which can be strengthened or weakened, ... but cannot be changed to the opposite" (F.V. Lopukhov [30, p. 27]). The generalized imaginative meaning of this or that movement becomes the "key" moment in the construction of the composition ("text") of the dance: for the expression of the general idea, the dramatic development, precisely those movements are selected that most clearly contribute to such expression. In an integral composition, this plastic-generalized symbolism, due to its genetic connection with real expressive movements, gives rise to certain figurative associations in the viewer, allowing him to understand the content of the dance in the system of its own language without verbal explanations [5].

In the second half of the 20th century, a new flowering of Russian ballet, the next round in the development of expressive language (in the productions of Y. Grigorovich) are associated with the development of new thematic material (love, heroism, the struggle for freedom), which became a powerful source for dance dramaturgy.

In Russian ballet of the 21st century, the significance of the theme and plot of dance is also confirmed, including "from the opposite": more and more choreographers refuse to speak the language of dance about the global themes of the modern world, choosing "an infantile strategy associated with the embodiment of purely personal emotions and feelings on a stage" [6, p. 25]. "The plot has become an old-fashioned tool in the working kitchen of modern choreographers", which "allows modern dance to talk about nothing" [6, p. 24].

Thus, the highest achievements of dance art prove that the reflection of images of reality, starting with the choice of theme and plot idea is the source of dance imagery, the development of the language and dramaturgy of dance.

L.S. Vygotsky writes: "Russian ballet is one of the greatest creations of the creative spirit" [11, p. 199]. He emphasizes the opportunities of classical ballet to convey a deep meaning that is far removed from the depiction of a particular experience [perezhivanie], and juxtaposes it with music, considering them as "equal scale" kinds of arts. According to him, the language of classical dance is not meaningless, it builds a special world of great, spiri-

tual meaning [11, p. 199], which outstanding dancers reveal each in own way.

These propositions, not directly, but in a certain approximation, can also be applied to the dance creativity of preschoolers, in which children (at a level accessible to them) will be able to convey a meaning richer than the expression of their spontaneous emotions to music. Using the language of dance, the movements of which have generalized-imaginative meanings, it is possible to compose "remarks", "phrases", "to tell stories" — at the level of composition and meaningful performance.

Music in Dance

Turning to the origins of dance and music, one can see that in folk dance music is merged with word and gesture, movements are combined with music due to the archaic (simplicity) and syncretic nature of all expressive means [37]. Ballet as an independent art form took shape in the 17th century; As it developed, the role of music in a ballet performance changed step by step.

Choreographers of the period 17th — early 19th centuries more often used ready-made musical works (as a rule, of low quality) or were content with musical accompaniment convenient for dancing in a preset tempo, character, and metro-rhythm. The music and choreography existed as if on their own; most of the performances resembled disparate dance fragments with "applied music" [32].

It was only beginning with the ballets of P.I. Tchaikovsky and A.K. Glazunov in music began to be developed *dramaturgy of the dance image*. This was prepared by the period of romantic ballet, when the search for expressive means of dance required new musical "solutions", as well as by the symphonizing of music in the operas of M. Glinka and M. Mussorgsky. P.I. Tchaikovsky made a revolution *in ballet music* by symphonizing it according to the principle of end-to-end musical action [29; 32], unified in style, figurative system, with a truly dramatic character — this stimulated the search for new means of expressiveness of the dance language.

At the beginning of the 20th century, A. Duncan began to use symphonic works for her dance improvisations, which also influenced the ballet theater [37]: the search for an organic combination of music and dance intensified; as a result, the following concepts began to be distinguished: dance "on music", "under music", "into music", etc. [37; 30], — related to the historical stages of the development of the connection between choreography and music. "Dance *on* music" (superficial following music) is characteristic of the initial development of classical ballet: the movements approached the music, but not all of them coincided with it. "Dance *under* music" is a more accurate following of music (in the second half of the 19th century). "Dance *into* music" (complete coincidence with music) is aimed at to convey the character and expressive features of a musical work through pure movement, without conventional gestures and facial expressions (the genre of "symphonic ballet"); but, according to the fair opinion of critics, if the dance is

completely subordinated to music, it will be reduced "to the level of musical illustration" [37].

Interestingly, A. Duncan, who called to learn rhythm and harmony from music, was looking for opportunities to make dance autonomous, including freeing it from music [37, p 55].

Both extremes – "dance into music" and "dance without music" – are obviously exceptions, confirming that the driving force of the development of ballet and dance is dramatism, plot, reflecting images of reality on the basis of musical dramaturgy.

In the review by L.S. Vygotsky [11] a very important point is noted: the music and the movements of the dance do not prevail over each other; in dance music and movement should be unity with the common goal of embodying figurative content.

Thus, the analysis of the literature allowed us to identify a number of defining properties of the dance art, independent of the complexity of its forms, — these are: dramaturgy embodied in the plot, the relationships of personages with different characters, coordinated with the development of musical images; the use of both dance and pantomimic movements as expressive lexis [20, p. 23].

Analysis of Domestic Theoretical Approaches to the Development of Dance Creativity of Preschoolers

The method of "Musical Movement" was developed in the studio "Heptachor" at the beginning of the 20th century under the influence of free dance by A. Duncan, but did not continue its tradition, but took shape in an original pedagogical system, which is still developing [1; 2; 36].

"Heptachor" has developed its own unique method of holistic musical and aesthetic education of the personality, which goes beyond the "narrow task of teaching dance". The basic principles and methodology of the "Musical movement" were developed on the basis of the experience of dance studios (for adults and children) and within the framework of musical education in kindergartens, as well as on the basis of psychological comprehension [35] and a description of this method as a specific practice of aesthetic education [1; 2; 23] with an attempt to provide a theoretical justification for the method [35; 36].

In the "Musical Movement" method, the main thing is music, and movement and dance are the means of its active aesthetic experience and perception. Here, music comes first, and movement is in a subordinate position. The goal of the approach is to develop children's musicality, the ability "...to experience the content of the musical process in its entirety" [1; 2, p. 7; 23]. The authors of the method emphasize that music is a source of imagery of movements (other sources are not mentioned or taken into account). The motor image, which is understood as "...an expressive form of movement that embodies the content of music" [35, p. 149], entirely depends on the features of music [35, c. 149]. In order for the experience [perezhivanie] of music in motion was acquiring an aes-

thetic character, classical instrumental works are chosen that are accessible to children's perception [36; 25].

A system of exercises has been developed here, in which certain movements are correlate with certain musical fragments, expressiveness of the movements is specially "worked out" in order to "turn the body into an instrument for perceiving music... Only by cultivating a response similar to a reflex reaction, ... the dancer will be able to fully "do what the music tells him to do" and only then will his movements become expressive" [37, p. 62]. Proponents of the "Musical Movement" considered musical and rhythmic education according to the Dal'croze method to be unemotional, hindering the formation of the "correct musical-motor reflex" [37, p. 63].

The necessary motor skills, such as readiness for movement, muscular feeling, and "*breathfullness*", ensure the development of expressiveness of movements and the musical-motor image as a whole [1; 2; 23]. The means of its creation are flowing freely movements: pantomimic and natural (steps, running, jumping, etc.). In the absence of requirements for the performance of movements according to the given canons, nevertheless, the reflex motor response to music is consistently worked out.

The strategy of that approach is to move from improvisation in response to the sounding music through the comprehension of the primary emotional-motor reaction to the step-by-step formation of an integral musical-motor image (by means of its clarification and deepening) in order to more accurately embody the content of music [1; 35; 36; 23].

The effectiveness of the development of creativity according to the "Musical Movement" method is determined by the observations of teachers (and when working with adult participants, their self-reports are also used).

Traditional approach was founded at the end of the 60s of the twentieth century (N.A. Vetlugina [7]). Subsequently, it was widely used in musical education in mass kindergartens. N.A. Vetlugina speaks about the reflection of reality in musical and movement images inherent in dance art; However, in the transition to children's "musical-rhythmic movements", it recognizes imagery and plotting only for round dances and children's musical games with singing, where verbal texts are illustrated by pictorial movements, secondary to music and words. The characteristics of preschooler's dance are reduced only to the use of dance movements and their combinatorics; dance is considered only as a means of active-motor perception and transmission of the features of the musical image (tempo, metro-rhythm, general character), but not as an independent artistic activity of preschoolers [22].

Definitions of creativity in dance are contradictory. On the one hand, it "is manifested in the ability of children to combinate familiar elements of dance, to create their own movements, to come up with a simple dance such as a polka" [8, p. 122], and on the other hand, — in an attempt to convey his attitude to music [8, p. 93]. The possibility of dance creativity is mentioned only in relation to children of the preparatory group. The graceful, rhythmic performance of dance movements is probably

seen as expressiveness of the performance (although it is not formulated in this way).

Approach strategy: first master the technique and musical and rhythmic execution of individual dance movements; learn to reproduce them in dances, the compositions of which are built as a random alternation of movements, without semantic connections, only on the basis of combination with the character of the music; and only on the basis of this experience to move on to free dance improvisations to music.

In dances (for learning and also accumulating dance experience) dance music was used in two or three parts, according to the tempo rhythm, dynamics, character, and change of which it was necessary to change the dance movements ("heels" ["kabluchki"[2]], stomps, turns, and other). An insignificant exception (in the 1980's) were figurative (characteristic) dances, such as: the dance of several (identical) parsley, the dance of snowflakes, and so on [22], in which all children simultaneously reproduced the same learned composition of movements with attempts to convey the characters of the same personages, their usually cheerful mood (outside a plot).

For creative tasks there was used a dance music (Russian folk, waltz), which had a certain character (without the development of a musical image); and the child was suggested: "Dance as you want" or "As the music tells you".

Practice has shown that most of the children who coped with the task of reproducing movements according to the pattern and verbal instructions turned out to be helpless in the situation of a creative task [20].

Author's approach was created in the late 1980s as part of an experimental study [20] as an alternative to the traditional approach; then the methodological manual was published [21; 22].

The author's approach was also not without contradictions: dance was considered as a type of musical movement [20, p. 7]. In addition, despite the mention of two of Vygotsky's theses about the nature of children's imagination and play as the "root" of creativity [20, p. 15], cultural-historical theory as a whole was not considered as a methodological basis. Now all this needs to be clarified.

Still, a number of provisions of this approach are very productive. The possibilities of children's dance to convey with the help of dance and pantomimic movements the relationships and experiences of different characters, due to the development of the plot, are shown. Movements in dance are considered as the main means of conveying figurative content (in the absence of verbal texts, theatrical costumes and other "auxiliary" means). The sources of the imagery of the dance are the images of the surrounding reality and the possibilities of the language of movements to artistically embody them. Conditions for this: the use of a story dance with a given imaginary situation and exercises with plot elements; music for story dances and exercises, built on the prin-

ciple of musical dramaturgy; mastering the ways of pair interaction of partners — depending on the characters whose images are conveyed by children according to the roles and with the jointly embodying plot; as well as a dictionary of movements with a description of generalized-imaginative meanings of dance and pantomimic movements [20; 22; 23]. Generalized-imaginative meanings of movements are understood as figurative content, which (potentially) can be expressed by one or another element, gesture in the structure of a holistic dance movement. For example, "kabluchki" (putting the foot on the heel) can express cheerful perkiness, boasting, "podkovyrivanie" (mockery), mechanicalness, angularity, etc. — specific meanings are determined by the combination of this element with the peculiarities of posture, positions or movements of the hands, facial expressions, etc. (see picture).

Picture. "Kabluchki" (placing the foot on the heel) as an expressive element of different imaginative meanings

Creativeness in dance is understood as improvisation — the simultaneous composition and performance of musical-motor images. Such a division, as well as the definition of the content of each of these types of children's dance creativity, was proposed for the first time [18; 20]. Compositional creativeness is the embodiment of images through the language of movements, performed in ways unfamiliar to children in their training. Its components are the choice of movements, elements corresponding to the meaning (of the plot of dance and music); originality, variability of movements, their combinations; the originality of the trajectories of movement in space, with a mandatory condition that they correspond to the development of the musical image, plot and actions of the characters, including in interaction with a partner [21, pp. 16—17; 19]. Performing creativeness is an expressiveness, artistry, emotional living of musical-motor images, individual manner of transformation into characters' images [18; 21; 23].

Creativeness is understood not only as a result, but also as a method of teaching (starting from the middle group): the "co-creation" of the teacher with the children in a joint improvisational dance with the characteristic plasticity of different characters; fragments of creativity in simple exercises with plot elements; later, with additions and complications, they were used in the compositions of plot studies and dancing performances (at an older age) [22].

The strategy of the approach: from acquaintance with the generalized-imaginative meanings of dance and pan-

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[2] The transliteration from the Russian names of the movements and some figurative expressions was used because adequate translation it in English were not find.

tomimic movements to their meaningful choice and emotional living in exercises, etudes to convey the personages' relationships and them characters according to the roles, the plot of the dance and the peculiarities of the music; and then — to the dance improvisation of the musical-plastic, dance image, where the combination of movements as coherent sequences is "directed" by the logic of the image-character, the context of the imaginary situation and peculiarities of musical dramaturgy [23].

Mastering the technique of movement does not preclude the development of expressiveness but follows it: meaning forms the character of the movement [23].

For the first time within the framework of pedagogical research a diagnosis of the features of preschoolers' dance creativeness was developed, which made it possible to prove a direct significant connection between the meaningful mastery of the movement language in the transmission of the figurative content of dance — in one side, and in other — of productive imagination, the levels of compositional and performing dance creativeness of preschoolers [20, p. 8].

Current Trends in Approaches to Dance Creativity of Preschoolers

Over the past quarter of a century, significant changes have taken place in domestic preschool education: the development of variable programs, standards of preschool education; development of additional education, the spread of choreographic studios for children, including preschoolers; development of an innovative movement of practitioners, etc. Access to translated literature on bodily and dance-motor practices, with attempts to adapt them to the capabilities of children, has been opened. All of this has had an impact on modern approaches to the development of dance creativity of preschoolers.

A relatively new (2022) textbook on the theory and methodology of musical education of preschoolers [33] reflects modern trends in understanding the nature of children's dance and dance creativity of preschoolers. Its authors continue to defend the main positions of the traditional approach [33, p. 165], although the influence of the other two approaches also takes place. In particular, the imagery of dance is recognized, which is not limited only to the peculiarities of music, it is pointed out that dance has its own expressive language, which children need to master from early childhood. However, this is only declared without explanation of how exactly to realize it in practice; children's dance is still considered as a type of musical and rhythmic movements; there are no characteristics of the nature of children's dance creativeness, etc. All taken together speaks of the eclecticism and contradictory of the provisions, which are characteristic of the currently prevailing approach to the dance creativity of preschoolers. One of the main reasons for these problems is the absence of methodologically guidance, the need for which L.S. Vygotsky spoke [13, p. 292].

Some influence on domestic approaches was exerted by foreign publications about children's creative dance.

We will describe them very briefly (leaving a detailed review for a separate publication).

Creativeness and dance education are increasingly becoming the object of attention of foreign researchers, who believe that dance education plays a decisive role in the development of children's creativity; internationally, there is growing community of researchers in dance education [41; 42]. There is a wide range of "methodological" approaches, which are understood as a set of research methods (including diagnostic, pedagogical) and differ in the basis of definitions of creativity — cognitive, psychological, sociocultural, etc. [41]. Most often, the purpose of research is to study the impact of dance education on the development of a child's personality in order to increase his academic performance, motivation for learning and creativity, that is, a dance is considered as a psychotherapeutic tool (which partly echoes the position of domestic supporters of the "Musical Movement" approach [1; 2]). Much attention is paid to the pedagogical practices of dance training and creativity, as well as the training of dance education teachers. Children's creative dance is considered as a means of self-expression of the child to music, contributing to physical, intellectual, aesthetic development and the release of resources for initiative and productive activity in the community of peers.

When teaching dance to preschoolers in kindergarten, not theoretical foundations are considered, but "effective strategies for the development of children's creativity" [42, p. 133], including the development of the ability to imitate (based on a sample demonstrated to adults, analysis of the process of dance movements, their differences in strength, amplitude, rhythm, etc.), enrichment of creative imagination children; the development of their musical perception; the combination of dance education with methods of developing creative abilities that are fascinating for children [42].

In general, it can be said that despite the great attention of foreign researchers to children's creative dance, the methodological foundations of their research are not distinguished by the unity of theoretical approaches. Apparently, a psychological crisis, the historical meaning of which L.S. Vygotsky had written [13], continues and is very clearly manifested in theoretical questions about children's dance creativeness.

The solution to the problems of children's dance creativity in modern domestic preschool education is seen not only in the development of an integral theory, but also in the dissemination of methods corresponding to this theory, which involves both the preparation of methodological manuals and the training of teachers and music directors of preschool education. However, formulating a holistic theory is the first and key step on this way.

Conclusions

The contradictions inherent in each of the three Russian approaches to the theory of dance creativity of pre-

schoolers indicate the insufficiency of the development of an integral methodological basis in each of them.

The application of the provisions of cultural-historical psychology in the analysis of these approaches has shown its productivity and the possibility of using it as a systematic methodological basis for solving the problems of the theory and practice of dance creativity of preschoolers.

The need to develop a balanced, consistent theory of dance creativity of preschoolers on the methodological basis of cultural-historical psychology, the system of provisions of which sets the direction and basic positions of such a theory, has been revealed. In particular, children's dance creativeness should be understood as a reflection of images of reality on the basis of the connection of imagination and emotions in improvisational action through the language of movements in an imagi-

nary situation with a double affective plane, under the following obligatory conditions: using the plot structure of dances with the interaction ("dialogue") of personages with different characters through the language of dance and pantomimic movements; selection of musical works for such dances, reflecting the development (dramaturgy) of dance images.

Dance creativeness of preschoolers is an independent artistic activity, not limited only to the tasks of active perception of music and the development of musicality of movements. With the improvisational nature of preschool children's dance creativeness, it is important to differentiate two it's kinds: composing and performing, each of which receives intensive development if children consciously master the language of movements (dancing and pantomimical) as the main expressive means of dance.

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Variations on the Subject of Developmental Education

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The article raises the problem of developmental teaching (education) from the standpoint of cultural- historical methodology, the origins and scientific foundations of it its basic principles and widespread practical systems. The author's aim is to discover the general and specific features of existing models of developmental instruction, both theoretical justifications and practical recommendations for the organization of real school education. It is suggested that there is one system of developmental education based on the ideas of L.S.Vygotsky about the correlation between education and mental development and there are various theoretical approaches and practical models based on it. We tried to compare different attitudes to the correlation between education and mental development. We analyzed work made by Galperin, by research teams led by Elkonin and Davydov, and rby esearch teams led by L.V. Zankov. Special attention is paid to Repkin's research on the psychological organization of educational material, it illustrates the interpenetration of two approaches: Galperin's ideas about the developmental effect of instruction and Davydov's theory of learning activity. The author's hypothesis needs a theoretical and experimental verification, which will have not only a narrow scientific value, but also determine the directions of changes in the content of school education in accordance with the psychological laws of assimilation.

Keywords: the correlation between education and mental development, Vygotsky's cultural-historical psychology, Galperin's theory of the gradual formation of mental actions and concepts, Elkonin and Davydov's system of developmental instruction, Zankov's didactic system.

Вариации на тему развивающего обучения

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В статье с позиций культурно-исторической методологии поднимается проблема развивающего обучения (образования): его истоков и научных оснований; ведущих принципов; получивших распространение практических систем обучения. Автором поставлена исследовательская задача обнаружения общих и специфических особенностей существующих моделей развивающего обучения, а также поиска возможных точек пересечения, как их теоретических обоснований, так и практических рекомендаций при организации реального школьного обучения. Высказано предположение о наличии единой, базирующейся на идеях Л.С. Выготского о соотношении обучения и умственного развития системе развивающего образования, которая получила свое конкретное воплощение в различных теоретических подходах и практических моделях. Предпринята попытка сравнительного анализа подходов к решению проблемы соотношения обучения и умственного развития П.Я. Гальпериным, исследовательскими коллективами под руководством Д.Б. Эльконина и В.В. Давыдова, под руководством Л.В. Занкова. Специальное внимание уделено исследованиям В.В. Репкина по психологической организации учебного материала, которые иллюстрируют взаимопроникновение двух подходов: представлений П.Я. Гальперина о развивающем эффекте обучения и теории учебной деятельности В.В. Давыдова. Высказанная автором гипотеза нуждается в тщательной теоретической и экспериментальной проверке, которая не только будет иметь узко научное значение, но и определять направления изменений содержания школьного обучения в соответствии с психологическими закономерностями усвоения.

> The science of learning well is one of the most mysterious areas of human life.
>
> *S. Soloveichik. "Learning with passion"*

Alittle more than a quarter of a century ago, V.V. Davydov's article "On Theories of Developmental Training" [13] was published, the very name of which involuntarily prompts reflection both on the ambiguity of the phenomenon of developmental training itself, and on the diversity and possible inconsistency of the approaches describing it. According to V.V. Davydov, "many theoretical and practical problems of modern educational psychology and psychological pedagogy can be successfully solved depending on how seriously and deeply the problems of developmental education are developed" [13, p. 8]. At the same time, he notes that "educator-scientists, teachers, and methodologists do not have sufficiently clear ideas about developmental education, its various types and forms, moreover, they do not have clear ideas about the basic theories that one way or another interpret the question of the relationship and possible connection between schoolchildren's learning and development" (our italics — M.S.) [13, p. 8]. Turning to what V.V. Davydov said, we can only add that over the past years the situation has not changed, moreover, another trend is gaining strength: the number of those who easily consider themselves supporters of developmental education without sufficient grounds is growing. The position formulated by L.S. Vygotsky about the crisis of psychology in the first quarter of the twentieth century [5], manifested in the contradiction between science and practice, and further clarified by F.E. Vasilyuk to the statement about the schism of our science at the end of the twentieth century [4], when science and practices live a parallel life, today they sound hardly more relevant than in the times of L.S. Vygotsky and his followers.

In the current situation, the question of the principles, criteria and distinctive features of developmental education becomes especially significant. Perhaps it would not be a great exaggeration to say that this is primarily necessary for psychologists involved in education [see, for example, 34], since the subsequent choice in favor of certain teaching methods will depend to a large extent on the developmental effect they discovered (or its absence) of the pedagogical system. V.P. Zinchenko drew attention to this, referring to the accumulated experience of joint work: "... work on the theory and prac-

tice of developmental education, even regardless of its effectiveness, is a worthy example of cooperation between teachers and psychologists... Feelings of guilt and responsibility for failures and joy for both sides experienced success" [19, p. eleven].

This publication is devoted to the problem of developmental education, aimed at discovering the common features that unite its supporters. The author does not pretend to provide a comprehensive coverage of this fundamental problem; Our task is more modest, although not as simple as it may initially seem — to understand the foundations and origins of developmental education from the standpoint of cultural-historical methodology and further determine the uniqueness of existing approaches. This general task involves the following:

• identification of the scientific source of developmental education;

• detection of features of existing approaches;

• search for points of intersection of approaches.

It should be noted that in recent works V.V. Davydov turned to the concept of developmental education, which "links together developmental training and developmental education" [15, p. 82]. This was due, on the one hand, to the study of not only issues of education, but also education: "if you educate someone, then it means that in this education you teach something" [15, p. 80], and on the other hand, the development of issues of continuity between preschool and school education [16]. In our subsequent presentation, these two concepts — "developmental education" and "developmental education" — will be used as synonyms.

Origins of developmental education

The origins of developmental training (education) both as a theoretical approach and as an educational system go back to the problem posed by L.S. Vygotsky of the relationship between learning and mental development, which he approaches historically and analyzes three possible approaches to solving it. In some theories, training and development act as two processes independent from each other. In other theories, learning and de-

velopment are identified: a step in learning corresponds to a step in development: the child is developed as much as he is trained. Finally, the third group of theories tries to combine two points of view, and development is understood dualistically: there is development as maturation and there is development as learning.

L.S. Vygotsky contrasts these theories with his own, according to which learning and development are not two independent processes or the same process; there is "unity (our italics — M.S.), but not identity of learning processes and internal development processes" [6, p. 389]. It is neither correct to identify the processes of learning and development, nor to assume that the development process occurs independently of the learning process. L.S. Vygotsky claims that there is a complex relationship between learning and development doctrine: "... learning is not development, but, properly organized, ... brings to life a number of processes that would otherwise become impossible without learning. Education is... an internally necessary and universal moment in the process of development in a child of not natural, but historical human characteristics" [6, p. 388].

His words sound like parting words to his descendants: "Tracing the emergence and fate of internal lines of development that arise in connection with schooling is the direct task of pedological analysis of the pedagogical process" (our italics — M.S.) [6, p. 389].

L.S. Vygotsky not only proposed a new look at the problem of learning and mental development, but also emphasized its qualitative originality. If, from a traditional point of view, the assimilation of a new word or mastery of a new operation marks the end of the processes of its development, then from a new point of view, on the contrary, only from this moment does development begin. However, not all learning awakens developmental processes to life; it only becomes genuine when it runs ahead of development, in other words, it is in the zone of proximal, and not actual, development of the child. L.S. Vygotsky's introduction of the concept of the zone of proximal development turned out to be revolutionary for psychology: this is "the best, most direct evidence of the leading role of learning in the development of thinking" [11, p. 310], noted P.Ya. Galperin and D.B. Elkonin.

Types of learning and mental development

Based on the ideas of L.S. Vygotsky, P.Ya. Galperin paid special attention to the issue of the influence of education on the mental development of the child. According to the fair remark of I.M. Arievich, the research carried out by P.Ya. Galperin made it possible to identify the "mechanism of human learning and development" (our italics — M.S.) [2, p. 58].

P.Ya. Galperin drew attention to the fact that traditional teaching involves control mainly based on the

final result, which the student arrives at by touch, which explains the variation in school performance. It should be specially said that P.Ya. Galperin, already in the very first publications on the theory of the gradual formation of mental actions, emphasized that differences in abilities exist, but they should not serve as an excuse for pedagogical marriage [7].

According to P.Ya. Galperin, it is urgent to find out "the conditions under which the student will act as he should" and will inevitably come to pre-planned results" [9, p. 3—4]. This system of conditions was called the systematic, step-by-step formation of mental actions and concepts and included four large groups of conditions:

— formation of adequate motivation for the student's actions;

— ensuring the correct execution of a new action;

— education of its desired properties;

— formation of action in the desired form.

Thanks to this organization of the learning process, a new action is formed much faster and easier than with traditional forms of learning. The advantages of the new teaching method were demonstrated on various subject material: writing letters, basic grammar concepts, basic physical and mathematical concepts, etc.

However, it is well known that not all training meets these requirements. Therefore, P.Ya. Galperin identified three types of teaching, each of which is distinguished by "its own orientation in the subject, its course of the learning process, the quality of its results and the attitude of children to the process and subject of learning" [9, p. thirty].

Incomplete training in type I training, the absence of a significant part of the conditions necessary for the correct execution of a new action, becomes the cause of trial and error. The latter arise where there are no instructions or landmarks; the action itself is oriented by the subject only towards a given end result. Independent compensation for missing conditions is always incomplete, which leads to a wide range of academic performance. Right action happens by chance. With such training, interest in the learning process remains external, not related to cognition; this determines its direction and stability. The majority of children studying in type I learning accumulate narrow subject knowledge and skills. The development of thinking and abilities occurs as if in addition to learning.

Type II training involves obtaining complete guidelines for a separate action in a ready-made form, which practically eliminates trial and error. Systematic education of the desired qualities allows you to achieve the intended results without significant scattering of academic performance. Such learning is based on the characteristics of individual specific objects, and transfer to new objects or new conditions is limited by their external similarity. The main disadvantage of this type of teach-

ing is the formation in students of an attitude towards ready-made knowledge, and not towards the discovery of the unknown, which fosters not a substantive, but an applied interest in knowledge.

When learning according to type III, an object is revealed not in isolation and not only in its difference from others, but as a particular phenomenon of the general system. The orientation scheme is drawn up as a result of preliminary independent research of objects in this area. Mastering p As a child, the method of research opens up unlimited perspectives, just as the knowable reality itself is unlimited. P.Ya. Galperin specifically emphasizes that the III type of orientation requires deep processing of educational subjects, which causes the main difficulty in its implementation.

The main thing in type III learning is the stimulation of cognitive activity, the strengthening and development of cognitive interest, which results in the exclusion of other types of motivation. "For a student who has a method of successful movement in a subject, the latter is revealed as a limitless field of productive activity, the results of which, even only promising ones, bring specific satisfaction of cognitive needs" [8, p. 33]. The specificity of such cognitive motivation itself, which arises as a result of the student's personal involvement in the learning process, was very accurately described by W. James. Addressing the teacher, he wrote: "... when teaching, you must simply arouse in the child such interest in what you intend to tell him that no other subject can penetrate his consciousness, then present the subject being presented in such an expressive form that he forever imprinted on the mind of the student; finally, instill in the child a yearning desire to find out what further follows from this subject" [17, p. 19].

It can be said without exaggeration that P.Ya. Galperin discovered precisely this method of constructing an educational subject according to type III, when the features of the indicative part of the action being formed not only ensure a high level of its execution, but also contribute to the emergence of cognitive interest.

P.Ya. Galperina raises the question of the connection between types of learning and general mental development. In type I training, there is no positive connection between training and mental development, and mental development not only does not depend on training, but, on the contrary, determines its possibilities. When training according to type II, there is also no effect of training on mental development. And only in type III of learning is there an effect of general development, which manifests itself not only in the spread of learned techniques to sections of the same subject, but also in different forms of intellectual activity. P.Ya. Galperin sees the explanation for this in the following: "... such training equips the child with clear means of distinguishing and assessing the internal structure and properties of objects and generates a strong and ever-increasing in-

terest in their study" [9, p. 40]. The powerful developmental effect of type III training "seems understandable and... quite natural" [9, p. 40].

However, P.Ya. Galperin's contribution to psychological science is not limited to this. P.Ya. Galperin's interpretation of the problem of the relationship between learning and mental development reveals the psychotechnical nature of his approach, which fits within the framework of the psychotechnical methodology of L.S. Vygotsky [36], which allows us to consider school education through the prism of the psychotechnical approach. P.Ya. Galperin managed to theoretically substantiate and experimentally show how the content and organization of education determine the cognitive development of the student, in other words, how the teacher becomes responsible for the child's intellectual acquisitions. It would not be an exaggeration to say that the position on types of learning developed by P.Ya. Galperin turned out to be in the zone of proximal development of Vygotsky's concept and contributed to solving the problem of the relationship between learning and development at a specific psychological level.

Thus, the theory of P.Ya. Galperin, psychotechnical in its methodological basis, is adequate for "psychological (as opposed to pedagogical) analysis of school teaching and the subsequent organization on its basis of real practical inclusion in the learning process" [36, p. 28]. This provision illustrates the possibility of carrying out a proper psychological analysis of the educational process in accordance with L.S. Vygotsky's understanding of its content.

Developmental learning as educational practice

A comparative analysis of the approaches of L.S. Vygotsky and P.Ya. Galperin to solving the issue of the relationship between learning and mental development was the subject of our scientific research [see, for example, 32, 33, 35], but in this case, taking into account the posed problem of developmental education as of the pedagogical system, it is of independent interest to turn to the works of V.V. Davydov.

According to V.V. Davydov, L.S. Vygotsky's hypothesis about developmental learning began to be tested extensively and on a broad experimental basis from the late 50s. The twentieth century, two scientific and practical teams — the team of L.V. Zankov and the team of D.B. Elkonin and V.V. Davydov. V.V. Davydov wrote: "Both of these teams were able to transfer the results of their many years of experimental work into the practice of mass schools and formalized them in the form of integral systems of developmental education" [13, p. 13].

Based on L.S. Vygotsky's hypothesis about the sources and psychological patterns of child development, Elkonin's periodization of child development, Davydov set

the task of "establishing the role and significance of primary school age in the general system of children's ages." n" [13, p. 13] and discovered that traditional primary education does not create zones of proximal development, but only consolidates and trains the mental functions that emerged in preschool age. He set the task of organizing training for younger schoolchildren that would contribute to the development of their cognitive and personal spheres. The basis of such training is the assimilation of knowledge and skills in the form of educational activities, the uniqueness of which lies in the assimilation by schoolchildren of theoretical information in the process of systematically solving educational problems, which requires an orientation towards the essential relationships of the subjects being studied.

It seems important both theoretically, and even more so in a practical sense, V.V. Davydov's conclusion that any reasonably structured education contributes to the development of children's thinking and personality, but the type of developmental education under consideration is aimed at developing theoretical thinking and creativity in younger schoolchildren as the basis personality. Such qualities are not formed in the conditions of traditional education, but "one cannot talk about developmental education "in general" — it is necessary to clearly identify and compare its different types, correlate them with well-defined historical conditions of their occurrence and with well-defined ages of a person" [13, p. 17].

The didactic system of D.V. Zankov, as well as that of D.B. Elkonin-V.V. Davydov, is based on L.S. Vygotsky's ideas about the relationship between learning and mental development. At the same time, L.V. Zankov draws attention to the difference between psychological and pedagogical approaches to solving it: if in psychology the center of gravity is shifted to the study of development itself, then in pedagogy the task is set of developing a system or teaching methods. L.S. Vygotsky considered the problem of the relationship between learning and mental development as psychological, and L.V. Zankov set the task of building a didactic system that would ensure the overall development of schoolchildren; this system was defined by the author as experimental, as opposed to traditional.

In developing the pedagogical problem of the relationship between training and development, L.V. Zankov proceeds from the leading role of training and education in development, which occurs not through special exercises, but in the course of mastering the fundamentals of science. Accordingly, the educational process should be structured based on the task of developing students, and not as focused solely on the acquisition of knowledge and skills. "The central idea of the experimental system is to achieve the highest possible learning efficiency for the overall development of schoolchildren" [18, p. 31]. The following principles contribute to ensuring the unity and consistency of the parts of the experimental didactic system:

• a high level of learning difficulty, which presupposes knowledge of the essence of the phenomena being studied, the connections and dependencies between them;

• studying program material at a fast pace, which hides the constant enrichment of new knowledge, the refusal to monotonously repeat what has been learned;

• the leading role of theoretical knowledge (mastery of terms and definitions, dependencies and laws), which does not reduce the importance of skills and abilities, but presupposes their formation on the basis of general development;

• students' awareness of the learning process — this principle corresponds to the general didactic principle of awareness of learning, that is, not all parts of the educational process are covered;

• purposeful and systematic work on the development of all students in the class.

The didactic system of L.V. Zankov caused critical comments from V.V. Davydov as not providing, in his opinion, the development of children beyond the limits of their empirical thinking and consciousness: "In this system there is no concept of educational activity as the true basis of the mental development of children schoolchildren; There is also no detailed understanding of the uniqueness of theoretical thinking (the presence of such thinking is recognized, but in inextricable connection with empirical thinking)" [14, p. 381]. While, according to the theory of developmental education by D.B. Elkonin—V.V. Davydov, "the content of developmental primary education is theoretical knowledge (in its modern philosophical and logical understanding), the method is the organization of joint educational activities of junior schoolchildren (and before in total, the organization of their solution of educational problems), the product of development is the main psychological new formations inherent in younger schoolchildren.

A comparison of this system with the system of L.V. Zankov reveals their fundamental difference. It is revealed both in the expected result of development and in the ways of achieving it" [14, p. 384—485]. It can be assumed that V.V. Davydov and L.V. Zankov put different content into the concept of "theoretical thinking", however, even discarding this assumption, one has to think about what was said by V.P. Zinchenko, who, as is known, after the death of V.V. Davydova became President of the International Association "Developmental Education". He wrote: "I'm not sure that V.V. Davydov and his colleagues formed theoretical thinking in schoolchildren, but what he strove (and achieved) was for his students' reason to prevail over reason — this is beyond doubt. I think that this predominance contains the core of theoretical thinking" [20, p. 278].

Developmental education: unity in diversity

In general, presented are 1) P.Ya. Galperin's approach to understanding the relationship between training and development and the requirements formulated by him for the organization of developmental education itself (III type of teaching), 2) D.B. Elkonin—V.V. Davydov's system of developmental education in the unity of theoretical and educational aspects and 3) the didactic system of L.V. Zankov as the pedagogical embodiment of the theoretical approach represent different options for solving the same problem.

As expected, the question arises about the relationship between these approaches, which can: a) either coincide (in whole or in part); b) either fundamentally differ and thereby contradict each other; c) or represent different models united by a common origin. This question has faced researchers before, and it should be noted that whatever the answer, it cannot be of a narrowly scientific nature; it is followed by specific practical conclusions, like a shadow behind a cast object.

Since all of the above researchers relied on the ideas of L.S. Vygotsky, then, apparently, the following statement of V.P. Zinchenko will be key in the search for an answer to the question posed: "Vygotsky's school today is a kind of cultural and historical code, since many of its followers themselves created their own scientific schools in psychology and education" [19, p. 409].

V.V. Davydov wrote about several theories of developmental education: about the developmental significance of the spiritual community of teacher and student in the pedagogy of cooperation of Sh.A. Amonashvili, in which the content-evaluative basis replaced traditional school grades; the school of "dialogue of cultures" by V.S. Bibler, when understanding is achieved by simultaneous consideration of natural phenomena or a work of art from the point of view of different cultures.

From the standpoint of developmental education, one can also consider the common sense pedagogy of A.A. Leontiev [22, 23]. According to D.A. and A.A. Leontiev [24, 25], from 1988 to 1991 A.A. Leontiev was a member of the Temporary Research Team "School", and since 1997 he has been the scientific director of the Interregional public organization "School 2000" (later — "School 2100"). Analyzing the accumulated experience, A.A. Leontyev came to the conclusion that "School 2100" was an attempt to develop "an educational system that:

firstly, there would be a system of developmental education...,

secondly, it would be accessible to mass schools...,

thirdly, it would be developed as a holistic system... of textbooks, programs,... teacher training systems...,

fourthly, it would be a system of holistic and continuous education" [28, p. 5—6].

A.A. Leontiev emphasized the uniqueness of the approach he developed in comparison with the developmental education systems of D.B. Elkonin — V.V. Davydov and L.V. Zankov. In particular, he drew attention to an important point in practical terms: if the directions of developmental education "create, as it were, a new school next to the mass one" [22, p. 4], then common sense pedagogy is aimed at developing a "model of developmental education for the transition period" [22, p. 4]. This statement by A.A. Leontyev has not lost its force, since the transition from a traditional mass school to a different model of education (not by chance called experimental) still quite rightly raises many questions, most of which have not received a substantiated answer.

A brief review of approaches to developmental training (education) suggests that researchers and practitioners can attach different meanings to the very concept of "developmental education." A similar idea was expressed by V.V. Davydov, noting that "the term "developmental education" remains empty until it is filled with a description of the specific conditions for its implementation according to a number of essential indicators" [13. With. 18]. The latter include the following:

• the main psychological new formations of a given age that arise and develop in this age period,

• leading activity of a given period, determining the emergence and development of relevant neoplasms,

• content and methods of joint implementation of this activity,

• the relationship of this activity with other activities,

• a system of techniques that can be used to determine the levels of development of relevant neoplasms,

• the nature of the connection between these levels and the characteristics of the organization of leading activities and other related activities.

If V.V. Davydov focuses on the specific content of the selected indicators, then V.P. Zinchenko formulates the general principles of developmental education, resulting from an understanding of the relationship between learning and mental development. He turns to the perspective of theoretical and practical work in the field of developmental education and develops the psychological foundations of developmental education and the principles of psychological pedagogy. V.P. Zinchenko writes that D.B. Elkonin and V.V. Davydov began building b cultural-historical pedagogy, and "the phrase cultural-historical pedagogy, like cultural-historical psychology, obliges" [19, p. 7]. According to V.P. Zinchenko, D.B. Elkonin and V.V. Davydov successfully combined in their approach the achievements of cultural-historical psychology and psychological theory of activity and developed their own version of a system of developmental education for junior schoolchildren, the core of which is ideas about educational activity . He notes that this theory "is not easy to understand, but even more difficult to implement in school teaching" (our courses — M.S.) [19, p. 411].

V.P. Zinchenko formulates the principles of psychological pedagogy, which "is both science and practice, and ideally technology" [19, p. eleven]. The principles of psychological pedagogy, in his opinion, go beyond the theory of D.B. Elkonin and V.V. Davydov. These are the principles of cultural-historical, or, as V.P. Zinchenko calls it, cultural-event theory and practice of education.

1. The main principle is the uncontrollability and creative nature of development.

2. The leading role of the sociocultural context or social situation of development.

3. Orientation of training towards sensitive periods of development.

4. Joint activity and communication as a driving force of development, as a means of training and education.

5. Leading activity, the laws of its change as the most important basis for the periodization of child development.

6. Determination of the zone of proximal development as a method for diagnosing abilities, understood as methods of activity.

7. Acceleration of child development as a necessary condition for the versatile upbringing of a child.

8. The enduring value of all stages of child development.

9. The principle of unity and asymmetry of affect and intellect.

10. The mediating role of sign-symbolic structures, words, meaning and myth in the formation of objective actions, knowledge, and personality development.

11. Interiorization and exteriorization as mechanisms of development and learning.

12. Unevenness (heterochrony) of development and formation of mental actions.

13. Embracing all others: freedom "in choosing your own model or "ideal", even imitating, to retain complete freedom of creativity, deepening, transformation, overcoming your "models"" [19, p. 418].

According to V.P. Zinchenko, the listed principles should form the basis of any modern reasonable and humane system of education and upbringing, since no reasonable alternative has been put forward to this entire system or set of principles. The task is to develop and operationalize them — to create appropriate methods, psychotechnics, and cultural pedagogical technologies.

Thus, based on the analysis, the following conclusion can be drawn: L.S. Vygotsky's ideas about the determining role of learning in development served as the scientific basis for the theoretical and experimental research of D.B. Elkonin, L.V. Zankov, P.Ya. Galperin, V.V. Davydova. According to our assumption, there is every reason to talk about a unified system of developmental education based on the ideas of L.S. Vygotsky, which has received its concrete embodiment in various theoretical approaches (systems). The most famous of

them are P.Ya. Galperin's ideas about the types of learning and their connection with mental development, about the developmental effect of learning according to type III; developmental education system of D.B. Elkonin and V.V. Davydov; didactic system of L.V. Zankov.

Teach wisely

At the beginning of the publication, the issues to be discussed were identified. If the first two — determining the common source and discovering the specific features of each approach — have already been the subject of discussion, then the question has come about the points of intersection of approaches to developmental education. Above we discussed V.V. Davydov's critical attitude to L.V. Zankov's system; the analysis of the relationship between these two approaches is the subject of a separate study, and accordingly, the statement about the presence, as well as absence, of points of intersection remains hypothetical for now.

An illustration of the mutual enrichment of approaches to developmental education, in our opinion, can be seen in the works of V.V. Repkin, devoted to the psychological organization of educational material, in other words, "the use of its special "proper psychological" properties for the purpose of regulating educational activity" [31, p. 4].

V.V. Repkin's first experiments concerned the formation of spelling skill as a mental action based on the psychological concept of P.Ya. Galperin. V.V. Repkin came to the conclusion that "the method of forming mental actions should be considered as the theoretical basis of the methodology for teaching spelling"]29, p. 141]. Further research was completed in his Ph.D. thesis. At the same time, it is interesting to note that the dissertation, completed at the Department of Psychology of Kharkov State University under the direction of P.I. Zinchenko, was defended at the Faculty of Psychology of Moscow State University. M.V. Lomonosov, and in the Kharkov period of his work V.V. Repkin, in alliance with D.B. Elkonin and V.V. Davydov, was involved in organizing training and experimental work in the field of developmental education [see. about this: 21].

In his Ph.D. thesis, V.V. Repkin raises the problem of psychological organization of material, by which he means "the use of its special "proper psychological" properties for the purpose of regulating educational activity" [31, p. 4]. These actual psychological properties of the material are the features of the goal set in the task for students and the conditions under which this goal must be achieved. Depending on the content of the goal, cognitive tasks differ, when the goal is to identify a new property of an object and a new way of acting with it, and practical tasks aimed at transforming the object. Within cognitive tasks, there are theoretical tasks re-

lated to identifying a system of essential properties, and empirical tasks related to identifying individual properties, regardless of the degree of their significance.

The conditions for achieving the set goals allow us to talk about task-problems and sample tasks.

The system of tasks characterizes the method of psychological organization of the material, which does not coincide with either the subject-structural characteristics of the material or the characteristics of the "method of presentation."

It is the method of psychological organization of the material, according to V.V. Repkin, that determines the nature of the influence of the material on educational activity. If there is a natural connection between the method of psychological organization of material and the structure of activity, then it can be assumed, writes V.V. Repkin, that there is an optimal system of tasks, the use of which should ensure the formation of educational activity of the highest type (type 3 teaching according to Galperin).

The hypotheses put forward received experimental confirmation in studies by G.V. Repkina on students (based on the ability to solve problems "lining up objects for service") and by V.V. Repkina on seventh and third graders (based on the syntax of the Russian language). As a general conclusion, V.V. Repkin notes that "the psychological organization of material is one of the main means of programming educational activities... the effectiveness of such programming is determined by the method of psychological organization of the material" [31, p. 17]. The classical idea of assimilation as a process proceeding according to the scheme "perception-understanding-memorization-application" was contrasted with another "scheme of assimilation: "orientation-step-by-step formation of actions — knowledge and skills"" [31, p. 12].

Even a very cursory acquaintance with the results obtained by V.V. Repkin is enough to detect in his research an internal connection between the theoretical approach of P.Ya. Galperin with the approach of D.B. Elkonin and V.V. Davydov.

V.V. Repkin identified a method of psychological organization of material, according to which the main time is spent on mastering a system of theoretical concepts: the content of an academic subject was considered "as a factor that determines the characteristics of the assimilation process and the quality of its results" [30, p. 39].

P.Ya. Galperin in the article "Reasonableness of actions and the subject of science" raises the problem of the content of concepts acquired by students: "on the first approaches to science, at the first acquaintance and even the first meetings with it, a clear identification of its subject is especially important and constitutes an imperceptible, but irreplaceable condition its further study" [10. With. 555]. Science, according to the conviction of P.Ya. Galperin, should not be presented to the student as a set of individual facts, rules and laws, and using the example

of mathematics, grammar, history, literature, he showed how the subject of science can be distinguished: "you cannot teach intelligently if you yourself the subject is presented unreasonably" [10. With. 566]. At the same time, the identification of the subject of science is a process that is performed by the cognizing subject himself, and as a result, the subject is presented as a "new field of his intellectual activity. It is systematically differentiated and freed from confusing influences from what is empirically connected with it... the identification of a specific subject of science produces a bipolar effect: in the subject it opens up optimal possibilities for its study, in thinking it outlines a qualitative shift in its development" [10. With. 566].

The question remains open about the relationship between, on the one hand, P.Ya. Galperin's understanding of the reasonable construction of a separate academic subject, and on the other, the development of requirements for the psychological organization of the material (V.V. Repkin), which "does not coincide with the subject-structural characteristics material, ... nor with the characteristics of the "method of presentation" ... regardless of its content" [31, p. 4]. In this regard, it is interesting to turn to the dissertation research of V.V. Davydov, carried out under the guidance of P.Ya. Galperin on specific educational material in mathematics [12]. A similar attempt was already made by L.F. Obukhova in 2010. Speaking at a symposium dedicated to the 80th anniversary of the birth of V.V. Davydov with a report on the topic "V.V. Davydov — a scientist from the scientific school of V.V. Davydov," L.F. Obukhova addressed the author's abstract V.V. Davydov and including the notes subsequently made in the margins of the abstract by P.Ya. Galperin in order to demonstrate the continuity of two approaches: P.Ya. Galperin and V.V. Davydov.

A comparative analysis of the approaches of P.Ya. Galperin and V.V. Davydov cannot help but encounter difficulties, one of which is the difference in their research programs. P.Ya. Galperin, as a general psychologist, was aimed at defining the subject and method of psychological science, but at the same time emphasized the importance of this issue for practice, therefore, the psychological analysis by the author of the mathematics program Ya.I. Abramson [1], built in accordance with with the requirements of type III teaching. V.V. Davydov entered the history of our science primarily as the author of the theory of educational activity. How does the mathematics program in the developmental education system differ from Abramson's original program? This is another direction for future research.

In Vygotsky's logic

To summarize, we can talk about various options for developmental training (education), based on the ideas

of L.S. Vygotsky about the relationship between learning and mental development. A thorough comparative analysis of its various models pursues two goals: firstly, theoretical, since its result is a reflection of the principles of developmental education, and secondly, practical, since it contributes to solving issues of organizing school education in accordance with the psychological laws of learning.

V.V. Davydov drew attention to the differences in developmental education systems depending on the importance attached to educational activities. He emphasized that if the system of D.B. Elkonin—V.V. Davydov is based on the concept of "learning activity", then other systems — L.V. Zankova, Sh. Amonashvili, V.S. Bibler — did not set themselves the goal start from the concept of "learning activity". He wrote: "Nowadays, only the followers of Vygotsky, and then Leontiev and Elkonin, can say that the basis of their understanding of developmental learning is the concept of educational activity. The famous Zankov, a student of Vygotsky, moved away from his teacher back in the mid-30s... Zankov never used the true concept of activity, much less educational activity... And for us, without this concept, it is simply impossible to approach developmental education" [15, p. 52]. Is the criterion chosen by V.V. Davydov sufficient to determine belonging to developmental education? A.N. Leontiev in 1957 in the article "Training as a problem of psychology" wrote: "... any teaching of knowledge, for example, teaching the basics of science at school, is at the same time a process of forming mental actions in students" [26, p. 13].

To what extent do the positions of V.V. Davydov and A.N. Leontiev contradict each other, given that actions constitute the unit of analysis of activity?

Who today can be considered a true follower of L.S. Vygotsky? L.I. Bozhovich, considering the cultural-historical psychology of L.S. Vygotsky as containing a number of ideas for building new original concepts, emphasized: "... it seems especially important to trace the logic of the thought of L.S. Vygotsky himself, and, without going beyond the framework created them the concept, to continue its research precisely in their own logic" (our italics — M.S.) [3, p. 357]. The words of D. Merezhkovsky have not lost their power: "Great people have no more dangerous enemies than their closest students — those who lie close to their hearts, for no one knows how to distort the true image of the teacher with such innocent deceit, with love and reverence" [27, With. 403].

We invite everyone interested to a joint discussion.

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DEVELOPMENTAL PSYCHOLOGY
ПСИХОЛОГИЯ РАЗВИТИЯ

Student Actors of Different Generations: Invariance and Variability of Personal Characteristics

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The task of the study: a comparative analysis of the personal characteristics of student actors of different generations so we can identify vectors of change and invariant personality structures. The study used data from 172 respondents: student-actors, of Russian Institite of Theatre Arts, GITIS, study period 1976—1979 (3rd year, N=14); student-actors, Moscow Theater College, study period 2010-2018 (3rd year, N=91); student-actors, Russian Institite of Theatre Arts, GITIS, study period 2022 (4th year, N=38); student-actors, Institute of Contemporary Art, study period 2023 (3rd year, N=49). We used the Kettell 16 PF questionnaire. We compared mean personality profiles of students who studied in 1976-1979 with student-actors who studied in 2010-2018, 2022, 2023.. Factor analysis was conducted to identify structural features. We revealed trends of changes in the expression of personality characteristics of student-actors who studied in the 1970s compared to those who studied in 2010-2018, 2022, 2023: a decrease in the indicators of the F (expressiveness), M (dreaminess) scales and an increase in the indicators of the H (courage) scale, significance level p≤0.05. Invariant combinations of scales common to all subsamples were described as following: "anxiety — emotional stability", "normativity of behavior — dreaminess", "emotional leadership", "radicalism — diplomacy", "public communication — nonconformism". The study reveals the interpretations of these combinations from the point of view of specifics of professional training and actor's activity.

Keywords: actor's talent, generational differences, personality characteristics, structural features, actor's psychology, Kettell's questionnaire, factor analysis.

Студенты-актеры разных поколений: инвариантность и изменчивость личностных характеристик

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Изменения социокультурного контекста в течение последних 50 лет отразились, в том числе, на специфике профессиональной деятельности актеров. Можно предположить, что лежащие в основе механизмов актерского перевоплощения психологические особенности остались неизменными. Задача исследования: сравнительный анализ личностных характеристик студентов-актеров разных поколений для выявления векторов изменений и инвариантных личностных структур. В исследовании использованы данные 172 респондентов (студенты-актеры, ГИТИС, 1976—1979 гг. (3-й курс, N = 14); студенты-актеры, Московский театральный колледж, 2010—2018 гг. (3-й курс, N = 91); студенты-актеры, ГИТИС, 2022 г. (4-й курс, N = 38); студенты-актеры, Институт современного искусства, 2023 г. (3-й курс, N = 49). Использован опросник Кеттелла «16 PF». Проведено сопоставление средних личностных профилей студентов, обучавшихся в 1976—1979 гг. с выборками студентов-актеров 2010—2018, 2022, 2023 гг. Для выявления структурных особенностей проведен факторный анализ. Выявлены тенденции изменений выраженности личностных характеристик у студентов-актеров с 1970-х гг. по сравнению со студентами 2010—2018, 2022, 2023 гг.: снижение показателей по шкалам F (экспрессивность), M (мечтательность) и рост показателей по шкале H (смелость), уровень значимости $p \leq 0,05$. Описаны инвариантные сочетания характеристик, общих для всех подвыборок: тревожность—эмоциональная стабильность, нормативность поведения—мечтательность», эмоциональное лидерство, радикализм—дипломатичность, публичное общение—нонконформизм. Предложены интерпретации данных сочетаний с точки зрения специфики профессионального обучения и деятельности актера.

Ключевые слова: актерская одаренность, личностные характеристики, структурные особенности, поколенческие различия, психология актера, опросник Кеттелла, факторный анализ.

Introduction

Researchers from various scientific fields, including philosophers, culturologists, educational practitioners, sociologists, and psychologists, are interested in the peculiarities of the personality of actors. At the same time, the primary focus centers around the correlation between an actor, their role, and the viewer. This means that it is crucial to understand the psychological traits that define an actor's personality. The philosophical essay Paradox of the Actor by Denis Diderot initiated this discussion, which was repeatedly debated by prominent Russian theater practitioners and theorists in the early 20th century (including K.S. Stanislavsky, V.E. Meyerhold, M.A. Chekhov, A.Y. Tairov, and E.B. Vakhtangov). Unfortunately, there are relatively few psychological studies in this area based on empirical material.

It is important to note that the study of personality traits characterizing predisposition to stage activity is important for both psychological science and pedagogical practice. Experts in the field of theater psychology state that during training for the acting profession, special attention is given to developing not only individual mental processes such as stage attention, affective memory, imagination, volitional qualities, and thinking, but also professionally significant personal characteristics [2; 6; 16; 18]. Empirical studies have shown that qualities such as plasticity and endurance in working and communicating with people, ability to predict the consequences of behavior, sensitivity to nonverbal and verbal expression are important for professional acting activity [8]. There are also specific psychological characteristics that indicate a predisposition to acting: sociability, courage, willingness to take risks, emotional sensitivity, tendency to artistic perception of the world [3; 11; 12; 12; 13; 13; 14; 14; 15; 17; 18; 20], demonstrativeness, rich imagination, femininity, intellectual flexibility [5; 10].

Similar tendencies are noted in the works of foreign authors. Thus, comparative studies of personality traits of actors and individuals in other professions using variants of the Big Five scales indicate that actors possess certain intrinsic qualities such as openness, extraversion, neuroticism, as well as higher levels of social intelligence and tolerance to uncertainty [21; 23]. Additionally, actors are found to possess great empathy and the ability to understand the mental state of others [22]. Furthermore, several studies have shown that there is a set of distinct personality characteristics that can be regarded as "specific abilities" that determine the success of influencing the audience, which cannot be attributed to mere training [24].

At the same time, in our opinion, the issue of an actor's personality cannot be viewed in isolation from the cultural and historical background in which they develop and become professionals [1]. It is worth noting that an actor's work is not limited to theater and film. Their participation in multi-episode and multi-season series, virtual reality projects, and online performances is also significant.

Thus, we can assume that the modern socio-cultural context suggests the development of special personal qualities in representatives of the acting profession, which, in addition to creative abilities, provide opportunities for successful professional realization. It is clear that the peculiarity of types of an actor's social activity in a new socio-cultural context changes the requirements for their professional training. It is in this regard that comparative studies of the personality characteristics of student actors of different generations may be of interest. At the same time, such intergenerational comparisons are particularly important because they not only reveal the dynamics of personality changes over time, but also help identify the universal personality traits associated with the psychological mechanisms of an actor's transformation.

Methods

**Data collection method.** The research is based on a comparison of data obtained from our multi-year studies of student actors using Cattell's 16 PF Questionnaire (Form A).

**Samples:**
• student actors who studied at GITIS on O.P. Tabakov's course in 1976—1979 (3rd year, N = 14);
• student actors who studied at the Moscow Theater College under the direction of O.P. Tabakov in 2010—2018 (3rd year, N = 91);
• student actors who studied at the Russian Institute of Theatre Arts (GITIS) in 2022 (4th year, N = 38);
• student actors who studied at the Institute of Contemporary Art in 2023 (3rd year, N = 49).

**Data analysis methods.** In this study, we used Student's t-test for independent samples to compare the average profiles on Cattell's questionnaire. The average profiles for each sample were compared to each other in pairs. The main focus of this paper is to compare the personality profiles of students who attended O.P. Tabakov's course in 1976—1979 with samples of student actors from 2010—2018, 2022, 2023.

Another line of analysis is related to the identification of common personality traits among student actors. For this purpose, a factor analysis of their individual profiles using Cattell's questionnaire (16 PF) was conducted. An initial data matrix included characteristics of students of different generations. The columns of the matrix represented 16 scales of Cattell's 16 PF Questionnaire, and the rows represented individual profiles (172 rows in total). The matrix cell (intersection of column and row) identified the value on the scale for a particular student. The matrix was factorized using the principal component method with Varimax rotation.

Results

The results obtained concern two subjects: 1) the analysis of average profiles of student actors aimed at identifying generational differences; 2) the identification, by means of factor analysis, of invariant complexes of interrelated personality characteristics common to students across different generations.

**1. Comparison of average profiles.** A pairwise comparison of mean values on the scales of Cattell's 16 PF Questionnaire revealed three scales on which all contemporary student actors (2010—2018, 2022, and 2023 samples) differ significantly from their counterparts who studied in 1976—1979. The data are presented in Table 1.

T a b l e 1

Mean values of Cattell's questionnaire scales for which significant differences were found
(sten scores, significance level p≤0.05)

Sample	F restraint-expressiveness	H shyness-courage	M practicality-dreaminess
GITIS, 1978 (O.P. Tabakov's course), N = 14	7.9	5.1	7.6
Tabakov College, 2010—2018, N = 91	5.5	7.5	5.8
Institute of Contemporary Art, 2023, N = 49	5.6	6.8	5.0
GITIS, 2022, N = 38	6.3	7.5	6.4

Student actors of the late 70s had significantly higher values on the F scale (expressiveness) of Cattell's questionnaire than today's student actors. This scale measures emotional intensity and dynamism in communication processes. Its high values capture such manifestations as cheerfulness, impulsiveness, enthusiasm, carelessness, and potential for emotional leadership [4; 19]. Hence, fifty years ago, student actors were more characterized by various manifestations of liveliness and bright emotions, whereas modern student actors have average values.

On the H scale (courage) the values of modern student actors were significantly higher than those of third-year actors 50 years ago. The H scale is a measure of social activity, and it is assumed that it also reflects temperament. A high score on this scale suggests traits such as being active, entrepreneurial, risk-taking, adventurous, able to make independent and unconventional decisions, and possessing leadership qualities. It also indicates being thick-skinned and not sensitive to criticism [4; 19].

The analysis of mean values on the M scale of Cattell's questionnaire (dreaminess) revealed that in the late 1970s, student actors were likely to possess such characteristics as a developed imagination, immersion in the inner world, and bohemianism. However, modern student actors have an average score on this scale and generally do not differ from normative values [4; 19].

2. Structural analysis. Factor analysis was conducted to identify invariant personality traits common to student actors of different generations. Table 2 shows the factor loadings of Cattell's 16 PF Questionnaire scales.

For convenience, Table 3 presents these factors as a code letter.

As shown in Table 3, the factor analysis resulted in 5 factors describing 63.0% of the total cumulative variance. Let's briefly consider the content of these factors.

T a b l e 2

Factor loadings of Cattell's 16 PF Questionnaire scales

Questionnaire scales	Factors				
	F1 19.3	F2 12.3	F3 11.7	F4 10.0	F5 9.7
A	−0.10	0.04	0.20	0.06	0.77
B	−0.15	0.08	−0.12	0.72	0.10
C	−0.78	−0.09	0.12	0.13	−0.10
E	0.20	0.06	0.81	0.15	−0.08
F	0.02	−0.56	0.54	0.18	0.11
G	0.02	0.81	0.02	0.06	0.12
H	−0.47	0.03	0.69	0.02	0.19
I	0.09	0.12	−0.24	0.06	0.69
L	0.69	−0.04	0.21	0.30	−0.11
M	0.03	−0.68	−0.09	0.32	−0.06
N	0.02	0.41	−0.10	0.51	−0.19
O	0.78	0.00	−0.09	0.17	0.13
Q1	0.01	−0.05	0.11	0.70	−0.07
Q2	−0.05	0.13	−0.48	0.07	−0.56
Q3	−0.58	0.55	−0.14	0.10	0.01
Q4	0.87	−0.09	0.05	0.03	−0.12

Note: after the factor number the percentage of explained variance is given; Cattell's questionnaire scales (positive poles): A — sociability, B — high intelligence, C — emotional stability, E — dominance, F — expressiveness, G — high normativity of behavior, H — courage, I — sensitivity, L — suspiciousness, M — dreaminess, N — diplomacy, O — anxiety, Q1 — radicalism, Q2 — nonconformism, Q3 — high self-control, Q4 — tension.

Table 3

The content of the factors (the sign "/" separates the positive and negative poles of the factor)

Factors	Cattell's 16 PF Questionnaire scales
F1	Q4 O L / C Q3
F2	G / M
F3	E H F
F4	B Q1 / N
F5	A I / Q2

Note: the legend of this table is the same as in Table 2.

Factor 1 comprises suspiciousness (L), anxiety (O), tension (Q4) on the positive end, while emotional stability (C) and self-control (Q3) are on the negative end. Together, these scales of Factor 1 reveal the emotional aspect of the student actors' personality.

Factor F2 reflects the opposition between dreaminess (M) and normative behavior (G). This factor characterizes the opposition of the tendency to escape reality and compliance with the norms of behavior.

Factor F3 is determined by the correlation between scales E (dominance), H (courage), and F (expressiveness). This set of these scales determines the subject's activity in social and interpersonal contacts, readiness to take action in uncertain situations, aspiration to emotional leadership, disposition toward risky behavior. In general, this factor reflects a person's attitude toward emotional dominance.

Factor F4 is made up of the B (intelligence) and Q1 (radicalism) scales on the positive pole, and the N (diplomacy) scale represents the negative pole. All scales included in this factor are related to intellectual characteristics. While the positive pole reflects a person's desire for intellectual independence, the negative pole is associated with a preference for building social connections.

Factor F5 is a bipolar factor that combines scales A (sociability) and I (sensitivity) on the positive pole, while the negative pole is represented by scale Q2 (nonconformism). The positive pole of this factor reflects a person's orientation toward emotional experiences, while the negative pole is associated with the dominance of self-interest.

Discussion

Generational differences. In comparison to their peers from 50 years ago, modern student actors tend to exhibit higher scores on the H (courage) scale of Cattell's 16 PF Questionnaire, while scoring lower on the F (expressiveness) and M (dreaminess) scales.

The significance of the H (courage) scale for contemporary student actors has been described in our previous works [7; 16; 17; 18]. It is worth noting that the rise of new performance formats and platforms for self-presentation, such as online platforms, social networks, and virtual reality, along with the emergence of numerous private universities and acting courses have created new demands on actors. To succeed in the profession, actors must be active, assertive, and willing to take risks. This is reflected in higher scores on the H scale among today's students.

In contrast, students in the 1970s scored significantly higher on the F (expressiveness) scale. Comparing the differences in the tendencies of the F and H scales in representatives of two generations reveals a meaningful contradiction. This contradiction lies in the fact that the F and H scales are part of the emotional characteristics group and are usually considered together as an indicator of disposition toward risky behavior when interpreting personality tendencies [4; 19].

However, we see that student actors from the late 1970s exhibit a tendency toward optimism, a belief in luck and favorable outcome of events. At the same time, they were cautious about taking risks and mostly did so when they were likely to succeed. In contrast, student actors of the 2010—2020s generation are less optimistic (lower F scale scores). At the same time, they are inclined to take risks in unfamiliar and nonstandard situations. They risk even if it could harm their health, financial stability, or reputation and do not think about the consequences (high scores on the H scale).

In our opinion, such dynamics are primarily affected by the current changes in the socio-cultural and sociopolitical context — the transition from stability and predictability to uncertainty and dynamism of events. Back in the late 1970s, student actors had a clear idea of their professional future — they would work in the theater and possibly participate in film projects. However, modern student actors look for work in their senior years and often have no definite prospects for employment.

As mentioned earlier, the M scale (dreaminess) reflects a rich imagination, a fascination with inner illusions, and a focus on one's ideas. Compared to student actors in the 1970s, those of today have significantly lower scores on this indicator. This scale plays a crucial role in determining how well an actor can creatively accept the given circumstances of their role [12]. It could be suggested that modern student actors' readiness to

accept the given circumstances is driven not so much by constructing an imaginary situation, but rather by attempting to replicate the stage behavior of more experienced and successful performers. In this respect, they are more oriented to copy the example. Modern student actors, like most people of their generation, are heavily involved in consuming various forms of visual culture such as TV series, movies, and videos. This could be one of the reasons for the decrease in imagination, as it is easier to mimic the performance of a successful actor than to come up with their own unique stage solution.

Structural analysis. Despite the noted differences in the expression of personality characteristics of student actors of different generations, the results of structural analysis allowed us to identify a number of invariant combinations of personal qualities that define the psychological features of an actor. Let us consider this in more detail.

We labeled F1 factor as "anxiety—emotional stability". Its structure is almost identical to the secondary factor FI (general anxiety) of Cattell questionnaire. This secondary factor describes anxiety in its usual sense, including self-dissatisfaction. It is important to note that high levels of this factor can lead to decreased productivity and even blockage of activity. Therefore, it can also indicate hypermotivation, where high anxiety about success hinders the start of activity. [4; 19].

On the one hand, the manifestation of these characteristics in student actors highlights the importance of emotional mobility. This is the psychological foundation of an actor's professional activity, which involves not only an actor's transformation but also the ability to respond to their partner and the audience. We should add that according to V.E. Meyerhold "...a necessary characteristic of an actor is reflex excitability. A person who lacks this ability cannot be an actor" [9, p. 4].

On the other hand, the high anxiety levels observed in student actors can be attributed to the public nature of their profession. Since stage performances are constantly evaluated by teachers, peers, and audiences, characteristics such as suspiciousness (scale L), anxiety (scale O), and tension (scale Q4) also indicate the importance of external evaluation for self-perception and performance satisfaction in student actors.

Factor F2 can be defined as "normativity of behavior—dreaminess". This factor quite clearly reveals the relationship between artistic creativity (M scale) and normative behavior (G scale). The ability to create new ideas, images, and artistic solutions requires a certain level of flexibility in relation to moral norms, generally accepted rules, and standards. This can be compared to having a "weak super-ego" in psychoanalytic terms [4; 19]. And vice versa, the presence of a "strong super-ego" (G scale) reflects a desire to adhere to established norms and patterns. In artistic terms, this will manifest in more prosaic, concrete, and realistic images. Thus, there are

two types of student actors who differ in their working attitudes toward a role. One type prefers to experiment and rely on their inner images, fantasies, and motivations when creating a role. The other type is characterized by their action in a specific real situation, striving to follow norms and existing examples.

The unipolar factor F3 is referred to as "emotional leadership." This factor is characterized by high values on scales H (courage) and F (expressiveness), which contribute to an optimistic outlook on life and prospects, with belief in luck prevailing over difficulties and problems. In addition, a high score on the E scale (dominance) included in this factor suggests the expression of characteristics such as perseverance, stubbornness, assertiveness, willfulness, and the desire to be admired. From the point of view of the acting profession, this factor seems to be extremely important, since emotional leadership can be seen as an individual's desire to have a direct emotional impact on others.

Factor F4 combines characteristics that describe different sides of the intellectual sphere of personality, including B (intelligence), N (diplomacy), and Q1 (radicalism). It can be labeled as "radicalism—diplomacy". From our perspective, this factor captures two possible scenarios for achieving success in an actor's career. In the first case, an actor with quick thinking, who learns easily (scale B), has a pronounced desire for innovation and experiments (scale Q1) is successful in their profession thanks to these qualities. They have an original approach to working on a role, promote the rapid mastering of skills necessary for stage tasks and related professional areas (directing, scriptwriting, producing, etc.). In the second case, diplomacy is the key characteristic that contributes to success — it is the ability to behave in society, tactfulness, perceptiveness, and the ability to find a way out of difficult situations (scale N). An actor's "social intelligence" helps to build good relationships with partners on stage, the director, and other members of the team. It creates a positive impression not only about their professional qualities but also their personal qualities. In general, this factor is an orientation to positive self-presentation in social situations and readiness to accept the position of the other.

We have labeled factor F5 as "public communication—nonconformism". The positive pole of this factor comprises qualities such as naturalness, kindness, openness, attention to people (scale A), and the ability to empathize, empathetic response, artistry, inclination to romanticism, and artistic perception of the world (scale I). This combination represents a specific personality structure that orients behavior toward a particular public artistic communication, demonstrating a willingness to express an emotional empathetic response to others.

Let us specify that the scale I (sensitivity) included in this factor characterizes personality manifestations such as attention and sympathy seeking, tendency to

act intuitively, fantasizing in conversation and alone [4; 19]. In other words, here we encounter not just a desire for public communication, but a special set of attitudes aimed at attracting attention to oneself (a kind of narcissism), which involves leaving the situation of ordinary and everyday communication for an "unreal", "fantasy" space with a special author-narrator.

The negative pole, on the other hand, reflects readiness for group interaction (scale Q2). In combination with the above-described aspiration to public artistic communication, low scores on the Q2 scale (conformism) indicate a pronounced desire for teamwork and decision-making, with a focus on the group's opinion for student actors, the group is the outer circle they seek to attract. In the professional life of actors, a certain degree of conformism can help their success in the theater or film industry.

Our factor analysis of Cattell's 16 PF Questionnaire scales is important because most psychological studies of actors, where this questionnaire was also used, are limited to describing only the manifestation of personality characteristics in a total group profile. Thus, among the specific qualities of an actor's personality there are dreaminess (M scale), radicalism (Q1 scale) [3], sociability (A), expressiveness (F), courage (H), sensitivity (I), trustfulness (L) [11]. At the same time, we emphasize that these trends are in many respects similar to those identified in our studies. However, it is the factor analysis, aimed at revealing the links between the scales, that gives grounds to speak about invariant features in the structure of an actor's personality.

In this regard, let's take a look at the results of a structural analysis of the psychological traits of student actors who studied at different courses of the theater college under the direction of O.P. Tabakov between 2010 and 2018. Cattell's 16 PF questionnaire was used to collect data during the entrance examination stage and at the end of each course of study. This data was processed using factor analysis which led to the identification of 4 invariant factors that describe the structural features of student actors' personality: "Personal anxiety / emotional stability", "Striving for public communication / nonconformism", "Emotional

impact on another", and "Artistic creativity / moral normativity" [17]. We will compare these findings with the results of factor analysis of student actors from different generations presented in the current study (Table 4).

Table 4 shows that the factors in the 2018 and 2023 studies are almost identical. The present study introduced a new factor, F4, which describes the intellectual sphere of student actors. This factor captures two types, one relating to the heuristics of solving professional tasks, and the other assuming their solution mainly through the effective application of social interaction skills.

However, the most important result for our study is that the factor structures describing the combination of personality characteristics in different generational subsamples of student actors are the same. This indicates the stability of the personal organization of an actor as a subject of professional activity, which is formed during the process of mastering the profession. This invariance is generally ensured by the stability of the pedagogical practice of the Russian theater school, both at the level of goals, and at the level of programs and teaching methods. In this regard, it is worthwhile to analyze those competencies of actor training that have remained practically unchanged from 2002 to the present [16].

Conclusions

Summarizing the results obtained, we can draw the main conclusions.

1. The changes in the manifestation of personality traits amongst modern student actors when compared to their peers from the late 1970s were revealed. It was found that current students show more courage and willingness to take risks, but have less developed imagination compared to their counterparts 50 years ago. These changes are believed to be related to the evolution of the socio-cultural context and the transformation of the features of actors' professional activity.

2. As a result of structural analysis, we identified invariant combinations of scales (factors) that describe the

Table 4

The content of the factors in the studies of 2018 (O.P. Tabakov Theater College) and 2023 (student actors of different generations)

Factors	Student actors of different generations (total)	Students of the O.P. Tabakov Theater College from 2010−2018
F1	Q4 O L / C Q3	Q4 O L / C
F2	G / M	M / G
F3	E H F	E H F
F4	B Q1 / N	—
F5	A I / Q2	A I / Q2

Note: the legend of this table is the same as in Table 2. The sign «/» separates the positive and negative poles of the factor.

emotional, intellectual and volitional aspects of personality. Interpreting these combinations from the perspective of professional training and an actor's activity allows us to refine our understanding of actor's transformation and the psychological mechanisms of actor's creativity. Additionally, it helps to identify the target orientation of pedagogical processes for acting faculties while considering the development of student's personality.

3. In general, the prospect of further analysis of the obtained material suggests the use of cluster analysis to identify different types of actor's personality during their professional training.

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Cultural Values: Their Correlations with Attitudes and Behaviors towards Senior Citizens

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In Asian societies, the quality of life among senior citizens depends on the support they receive from their younger generation. Accordingly, this study adopted the 'value-attitude-behavior hierarchy' in examining the impacts of Chinese traditional cultural values on the attitudes and behaviors of Malaysian Chinese adolescents towards senior citizens. 482 Malaysian Chinese adolescents were recruited for participation in a purposive sampling and surveys. Participants were asked to fill three scales: Chinese values survey, Kogan's attitudes towards older people, and interaction with older people. The results implied that traditional cultural values significantly impact the attitudes of these Chinese adolescents toward senior citizens. Besides, the attitudes toward older people are associated with interaction with older people. In addition, the findings also showed that attitudes toward senior citizens are statistical mediators of the cultural values impact on adolescents' interaction with senior citizens. The results supported applying the value-attitude-behavior hierarchy to better understand the influence of cultural values on the attitudes and behaviors toward senior citizens. Besides, the results also indicate that perseverance in particular cultural values will help the younger generation to improve the intergenerational relationships, especially among the younger generation whose values have been changing to individualistic ideas.

Keywords: Attitudes toward older people, cultural values, interaction between elderly and young people, Malaysia, adolescents

Культурные ценности:
их связь с аттитюдами и поведением по отношению к пожилым людям

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В азиатских обществах качество жизни пожилых граждан в значительной степени зависит от поддержки, которую они получают от молодого поколения. Соответственно, в данном исследовании была использована иерархия «ценности—отношения—поведение» для изучения влияния традиционных китайских культурных ценностей на отношения малайзийских китайских подростков с пожилыми людьми. Применялись целенаправленная выборка и методы опроса, собраны данные от 482 малайзийских китайских подростков. Участникам предлагалось заполнить три анкеты: «Опросник китайских ценностей», «Шкала отношения к пожилым людям» Кагана и опросник «Взаимодействие с пожилыми людьми». Результаты свидетельствуют о том, что традиционные культурные ценности значительно влияют на отношение китайских подростков к пожилым людям. Кроме того, отношение к пожилым людям связано с взаимодействием с ними. Результаты также показали, что отношение к пожилым людям статистически является транслятором культурных ценностей, которые влияют на взаимодействие подростков с пожилыми людьми. Результаты поддерживают применение иерархии «ценности—отношения—поведение» для понимания, насколько культурные ценности влияют на отношение подростков к пожилым людям и поведение с ними. Результаты также свидетельствуют о том, что сохранение определенных культурных ценностей поможет молодому поколению улучшить межпоколенческие отношения, особенно тем молодым людям, чьи ценности начинают сдвигаться в сторону индивидуалистических идей.

Ключевые слова: Отношение к пожилым людям, культурные ценности, взаимодействие между пожилыми и молодыми людьми, Малайзия, подростки.

Introduction

Population aging, which refers to the increasing proportion of older persons in a community, is underway worldwide [36]. As part of this global trend, Malaysia also involves a progressive increase in the older population, which the older generation is defined as people over 60 [30]. The aging population is estimated to increase from 2.21 million in 2019 to 6.89 million in 2050 [36]. Among 2.2 million older people in 2015, about 7 percent were Malays and Bumiputera, 12.1 percent were Chinese, 7.8 percent were Indians, and 11.4 percent were people of other ethnicity [26].

Malaysian Chinese have a higher aging rate than other ethnicities in Malaysia, due to their lower fertility rates, longer life expectancy, and more emigration

cases [29]. The fertility rate among Malaysian Chinese has decreased and gone below the replacement level of fertility since 2010, which indicates that Malaysian Chinese women do not give birth to enough babies to sustain their population levels. On the other hand, the life expectancy of Malaysian Chinese is longer than other ethnicities in Malaysia, extending the ratio between the senior and the fertility rate [4]. Therefore, preparing different strategies to meet the psychosocial needs of Malaysia's aging population is an apprehension of all.

An important contributor to senior citizens' quality of life is much more related to the attitudes of younger people because their negative attitudes toward senior citizens would have detrimental effects on various quality of life outcomes of these senior citizens [23]. Some studies have scrutinized various influences of culture on attitudes toward senior citizens. For example, Burnes and his collaborators [3] conducted a systematic review of 63 studies and concluded that ageism is a risk factor for senior citizens' physical and mental health. P.Hsu, P.Chong and C.Osawa [14] compared participants from Taiwan, South Korea, and Japan in their study. They reported different attitudes toward senior citizens; the Japanese reported more negative impressions of senior citizens than Taiwanese people, and Koreans were less willing to live with senior citizens than Taiwanese people.

In Asian societies, the influences of cultural values on the quality of life for senior citizens are significant as senior citizens rely upon the support they receive from their younger generation [37]. Similarly, the traditional Chinese culture may also affect Malaysian Chinese adolescents' attitudes toward senior citizens, as most Malaysian Chinese parents uphold children's education as a vital means of preserving Chinese cultural identity. Thus, they invest much effort in preserving traditional Chinese culture and education [25]. S.Ting and D.Lee [31] also found that school proximity and ethnicity-related reasons influence parental school choice of primary schools among Malaysian parents.

Accordingly, this study aims to examine the influence of traditional cultural values on Malaysian Chinese adolescents' attitudes and behaviors toward senior citizens. This study used the value-attitude-behavior hierarchy proposed by P.Homer and L.Kahle [13] as a research framework. The value-attitude-behavior hierarchy proposed that an individual's values would indirectly affect the individual's behaviors through his or her attitudes. In other words, values would act on one's attitudes first, and subsequently, one's attitudes would bestow one's behaviors.

A conceptual framework is shown in Fig. 1. It is assumed that cultural values will affect attitudes and behaviors, and attitudes mediate the relationships between cultural values and behaviors. In other words, an indirect-only mediation effect is expected.

The research hypotheses and conceptual framework are outlined as follows:

H1: Cultural values are associated with attitudes toward senior citizens.

H2: Attitudes toward older people are positively associated with adolescents' interaction with senior citizens.

H3: Cultural values were not associated with adolescents' interaction with senior citizens.

H4: Attitudes toward older people are a statistical mediator for the effects of cultural values on adolescents' interaction with senior citizens.

Methods

Design
After getting approval from the Scientific and Ethical Review Committee, a cross-sectional self-administered survey was conducted, and it took about six months to complete the data collection. A cross-sectional study was designed to select a sample and measure the outcomes simultaneously [24].
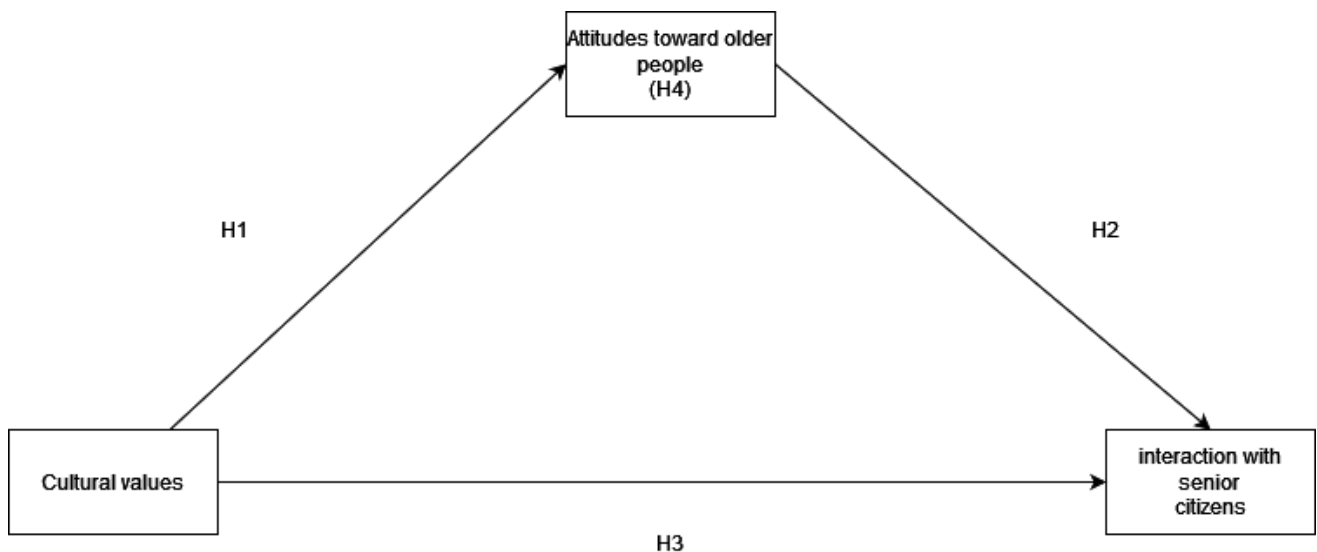

Fig. 1. The conceptual framework

Participants

A purposive sampling method was used to select participants. An inclusive criterion follows this description: The participants should be Malaysian Chinese studying in Chinese Independent Schools. They are high school students studying in Year One, Year Two, or Year Three (equivalent to Grades 10 to 12). 482 Malaysian Chinese secondary students from eight Chinese Independent Schools (average age = 16.97, *SD* = 0.89) were recruited to participate in the survey. About half of the participants were female (53.6 percent). This sample size is larger than the sample size suggested by J.Hair, M.Howard and C.Nitzl [10], and the minimum sample size should be ten times the most significant number of formative indicators used to measure one construct, which is 400.

Measurements

There are four sections in the survey questionnaire. They are the demographic information, items from the Chinese Values Survey (CVS), questions on Kogan's attitudes towards older people (KAOP), and participants' interaction with senior citizens. All the questions were in Chinese versions [6; 18].

Demographic information. In this section, participants were asked to fill in their age and gender.

Chinese Values Survey. The Chinese Values Survey consisted of 40 adjective phrases (for example, filial, hardworking, perseverance, humility, loyalty), which were used to measure the importance of Chinese Cultural Values perceived by the participants [7]. Participants were asked to indicate the level of perceived importance for each Chinese Cultural Value presented on a Likert scale with 1= "very unimportant" and 5= "very important." There is no reversed score. Following the suggestions from B.Matthews [20, p. 120], this survey included four factors, namely: (a) integrity and tolerant (17 items); (b) Confucian ethos (10 items); (c) loyalty to ideals and humanity (9 items) and; (d) moderation and moral discipline (3 items). "Integrity and tolerance" is relevant to self-development, such as working hard and self-cultivation. Confucian ethos is linked to relationships with others, such as benevolent authority and respect for tradition. Loyalty to ideals and humanity delves into social responsibility, such as patriotism, ordering relationships by status, and resistance to corruption. "Moderation and moral discipline" is about worldly wisdom, including the three values: repayment of good or evil or others, sense of cultural superiority, and wealth. Reliabilities of the four factors were reported as 0.82 for integrity and tolerance, 0.91 for Confucian ethos, 0.82 for loyalty to ideals and humanity, and 0.57 for moderation and moral discipline [20]. A higher mean score in each factor indicates that the value of that particular factor is perceived as more important.

Kogan's Attitudes Towards Older People (KAOP). This scale consists of two subscales and 34 items to evaluate attitudes towards older people [17]. Participants were requested to give their responses to the 34 items on the Likert scale ranging from "1" for "strongly disagree" to "6" for "strongly agree." The first set of 17 items includes worded negative statements (KAOP-), such as "It would probably be better if most old people lived in residential units with people of their age." The second set of 17 items was worded with positive statements (KAOP+), such as "people grow wiser with the coming of old age." The reliabilities of the KAOP+ is .80, and the KAOP- is .66 [19]. The scores of negative statements were reversed so that a higher mean score indicates that participants have a more positive attitude towards older people.

Interaction With Older People. We adapted items from the studies by M.Baranowski [2] and J.Sinnott, B.Raval and H.Shiffman [27] to form the measurement. In this section, participants were asked to rate seven items to indicate how often they interact with senior citizens in different activities, such as watching TV, watching movies, preparing dinner, and doing housework, on a 4-point Likert scale (never, seldom, sometimes, always). A higher mean score indicates that participants have more interactions with senior citizens.

Data Collection

Before the data collection, we emailed all 37 Chinese independent schools in West Malaysia to inform them about the details and obtained permission to conduct the research. The contact information of these schools was retrieved from the webpage of the United Chinese School Committees Association of Malaysia (also known as Dong Zong) [31]. The Chinese community wholly administers these non-profit educational institutions, and they are independent schools that possess complete authorization to make decisions for delivering teaching content and cultural philosophy [8]. The medium of teaching in these schools is Chinese language or Mandarin. Besides studying Bahasa Malaysia and English languages, students have to study the works of Confucius, Chinese literature, and Chinese calligraphy [8].

Among 37 schools we approached, eight schools agreed to participate, and they responded via emails or telephone calls. After getting ethical approval from the university, we assigned researchers to select participants in the respective schools. We also reminded the school teachers that only students who had obtained signatures from their parents or completed 'Guidance for Parental Informed consent forms' could participate in the survey. The researchers visited the schools at a pre-arranged convenient date and time to conduct the surveys. For schools preferring their teachers to administer the survey, we mailed questionnaires to the schools.

Similarly, students were requested to submit parental informed consent forms and needed to read and give assent to the consent form attached on the first page of the questionnaire. The consent form contained information about the purpose of the study, their rights to withdraw from the survey, the protection of their privacy, and their data confidentiality. The researchers either collected questionnaire forms from the students upon completing the survey or received the school questionnaire by post. A token was given to each participant who completed the survey.

Data Cleaning and Analyses

H.Kim [16] suggested that an absolute skew value larger than two or an absolute kurtosis larger than seven

may be used as a reference value for determining substantial non-normality. We examined the values of skew and kurtosis for all of the factors. The results showed that all values were within the normality range; the skew values ranged from –1.18 to 0.39, and the kurtosis values were from –0.56 to 2.01. As no questionnaire had more than 5 percent missing values in this study, a mean replacement was used to handle those questionnaires' missing data [10]. The SPSS program analyzed the descriptive results, and the SmartPLS program analyzed the partial least squares structural equation modeling. A measurement model was analyzed first to examine the reliability and validity of the scale, and then a structural model was conducted to examine the relationships among the variables [1; 22].

Results

Measurement Model
Construct Reliability and Discriminate Validity. We used composite reliability to examine the internal consistency of the scale. Composite reliability is appropriate for the examination of the Partial Least Square Structural Equation Model since the formula checks different outer loadings on the construct [10], and it is equivalence to the bivariate correlation between the construct and the respective indicator [11]. As shown in Table 1, all of the scales' composite reliabilities were from 0.74 to 0.92, exceeding the recommended value of 0.7 [10]. Correspondingly, the findings suggested that the latent constructs of all scales are acceptable. In addition, the variance inflation factor of all predictors was also below 5, indicating no collinearity issue [9].

Nonetheless, the results of the discriminate analysis showed that the factor "loyalty to ideals and humanity" is low discriminate with the factors "Integrity and tolerant" and "Confucian ethos," in which the HTML values are higher than 0.85. Thus, we do not include this factor in our further data analyses. After removing this factor, heterotrait-monotrait ratios of all measurements are below the critical values of 0.85 [12], indicating that the discriminate validities of all measurements are acceptable.

Efficient of Determination, Effect Size, and Collinearity Statistics of Measurements. Table 2 shows that middle to large effect sizes were found on KAOP and interaction with elderly, r^2 = .13 and .19, respectively. Nonetheless, only small to middle effect sizes was found among all predictors on KAOP and interaction with elderly, $f^2 < 0.15$. No collinearity issue was found as the variance inflation factor of all predictors was also below 5 [9].

Model Fit. Hair and his colleagues [11] suggested that covariance-based SEM is used to confirm or reject a theoretical model, whereas the partial least squares SEM is used to predicting and explaining a theoretical model. Accordingly, they suggested to use the coefficient of determination to evaluate the structural model of the partial least squares SEM. As shown in Table 2, middle to large effect sizes were found on KAOP and interaction with elderly, r^2 = .13 and .19, respectively. Besides, KAOP has a larger effect size on interaction with elderly, f^2 = .125, comparing to other predictors. These results indicate the inclusion of KAOP can increase the explained variance of interaction with elderly and thus the inclusion of KAOP is a better model than without the inclusion of KAOP. Ramayah and his colleagues [22] suggested the use of the standardized root mean square residual (SRMR) to test the model, that the SRMR should be less than 0.08, which is found to be 0.07 is this study. Nonetheless, Hair and his collagenous [11] doubted the appropriate of using the model fit in-

Table 1

Composite Reliability and Discriminate Validity of Measurements

			HTMT			
	Total items	**Composite Reliability**	**1**	**2**	**3**	**4**
KAOP	34	0.91				
Integrity and tolerant	17	0.92	0.30			
Confucian ethos	10	0.78	0.31	0.77		
Moderation and moral discipline	3 (1 item removed)	0.74	0.30	0.30	0.70	
Interaction with elderly	7	0.87	**0.44**	**0.25**	**0.26**	**0.15**

Table 2

Coefficient of Determination (r^2), Effect Size (f^2) and Collinearity Statistics (VIF) of Measurements

Exogenous	**Endogenous**	r^2	f^2	**VIF**
KAOP		.13		
	Integrity and tolerant		.029	.03
	Confucian ethos		.014	.31
	Moderation and moral discipline		.038	.30
Interaction with elderly		.19		
	Integrity and tolerant		.002	.25
	Confucian ethos		.012	.77
	Moderation and moral discipline		.001	.30
	KAOP		.125	.44

dex that applied in covariance-based SEM for the partial least squares SEM.

Structural Model

Table 2 shows bootstrapping results with five thousand samples revealed that only all cultural values were relevant to the attitudes towards senior citizens. Students who value integrity and tolerance were likelier to have a positive attitude towards senior citizens, p = 0.002. Students who perceived the importance of Confucian ethos were more inclined to have a positive attitude towards senior citizens, p = 0.033. However, students who perceived the importance of moderation and moral discipline were less likely to have a positive attitude toward senior citizens, p < 0.001.

Regarding cultural values and behaviors, only Confucian ethos is positively associated with interaction with senior citizens, p = 0.028. Regarding attitudes and behaviors, participants who have a positive attitude toward senior citizens are more ready to interact with senior citizens, p < 0.001.

Mediating Effects of KAOP. The Decision Tree proposed by X.Zhao, J.Lynch and Q.Chen [39, p. 201] is used to examine the mediating effects of KAOP. The results are shown in Table 2. Bootstrapping results with five thousand samples showed that specific indirect effects of the three cultural values on interaction with senior citizens are significant, ps < 0.05. These results indicate that attitudes mediate the effects of cultural values on interaction with senior citizens. In addition, as the direct effect of Confucian ethos on interaction with senior citizens is also significant, p = 0.028, these results indicated a complementary mediating effect, that both Confucian ethos and attitudes affect interaction with senior citizens. Nonetheless, the direct effects of integrity and tolerance on interaction with senior citizens and the direct effect of moderation and moral discipline on interaction with senior citizens are insignificant, ps > 0.05,

indicating a mediating-only effect. Both integrity and tolerance and moderation and moral discipline would affect attitudes first and behaviors next.

Discussion

This research adopted the value-attitude-behavior hierarchy to examine the influences of cultural values on Malaysian adolescents' attitudes and behaviors toward senior citizens. It was expected that cultural values would affect attitudes first and behaviors next; thus, attitudes mediate the effects of cultural values and behaviors toward senior citizens.

First, the results supported the influences of cultural values on the attitudes toward senior citizens among young adolescents. Among the three factors of cultural values, all were associated with attitudes. Young adolescents who perceived "integrity and tolerance" as an important trait were more inclined to have positive attitudes toward senior citizens. Since "Integrity and tolerance" were relevant to self-development, which includes values such as filial piety, working hard, tolerance with others, and self-cultivation [20, p. 119], the findings are consistent with filial piety-related findings, such as X.Dong and Y.Xu's study [7].

Besides, the results also showed a positive association between Confucian ethos and attitudes toward senior citizens. Confucian ethos upholds relationships with others, including being benevolent to authority and respecting tradition [20]. These findings are consistent with the findings of K.Hwang [15] and X.Wei and Q.Li [35], who reported that learning the values of building and keeping a harmonious relationship with others can be an appropriate way of increasing positive attitudes toward older people.

In contrast, young adolescents who perceive "moderation and moral discipline" as an important trait tended

Table 3

Path Coefficients of the Direct and Indirect Effects (One-Tailed Test)

	Hypotheses	B	SE	T values	P values
Direct effects					
Cultural values → attitudes toward older people	H1				
Integrity and tolerant → KAOP		0.22	0.07	3.18	0.002
Confucian ethos → KAOP		0.15	0.07	2.14	0.033
Moderation and moral discipline → KAOP		−0.18	0.05	3.87	< 0.001
Attitudes toward older people → Interaction with older people	H2				
KAOP → Interaction with older people		0.34	0.04	7.78	< 0.001
Cultural values → Interaction with older people	H3				
Integrity and tolerant → Interaction with older people		0.05	0.06	0.84	0.403
Confucian ethos → Interaction with older people		0.14	0.06	2.20	0.028
Moderation and moral discipline → Interaction with older people		−0.03	0.04	0.69	0.489
Specific indirect effect	H4				
Integrity and tolerant → KAOP → Interaction with older people		0.074	0.027	2.732	0.007
Confucian ethos → KAOP → Interaction with older people		0.051	0.024	2.099	0.036
Moderation and moral discipline → KAOP → Interaction with older people		−0.062	0.018	3.568	< 0.001

to be less inclined to have positive attitudes toward senior citizens. Since this factor includes a sense of cultural superiority and wealth [20, p. 119], the findings suggested that young adolescents who clung to personal loss and gain were less likely to have a positive attitude toward senior citizens. As senior citizens need more care and social support from others, young adolescents who uphold personal loss and gain would perceive older people as unvalued. These results are consistent with the findings of Y.Zhang, J.Wang and Q.Hu [38] that Chinese youth prefer independence to living together with senior citizens due to the social changes since the traditional filial piety values have been changing to individualistic ideas.

Secondly, our results showed that the attitudes of young adolescents were positively associated with their behaviors toward senior citizens. Simply put, young adolescents with positive attitudes toward senior citizens were more inclined to interact with them in different situations. These results are consistent with studies and theories that suggest attitudes are a significant predictor of behaviors [5; 28].

Thirdly, these results partially supported the value-attitude-behavior hierarchy, which proposed that value indirectly affects behaviors through attitudes. Consistent with the prediction of the value-attitude-behavior hierarchy, the results showed that both integrity and tolerance and moderation and moral discipline affect attitudes first and behaviors next. In other words, cultural values influence young adolescents' attitudes toward senior citizens, and forming such attitudes further influences young adolescents' behavioral interaction with senior citizens.

Nonetheless, the results also showed that Confucian ethos affects attitudes and behaviors, which indicates that specific cultural values may have more significant effects and thus may affect both attitudes and behavior simultaneously. However, the results of effect size suggested that attitudes still have a more significant effect, $f^2 = 0.125$, on behavior than the three cultural values have, $f^2 = 0.002$ for Integrity and tolerant, $f^2 = 0.012$ for Confucian ethos, and $f^2 = 0.001$ for moderation and moral discipline.

In a discussion of the ecological model of human development proposed by Baumeister, N.Vélez-Agosto and his collaborators [34] argued that culture is said to be a part of the macro system. However, there is no clear explanation of how the macrosystem interacts with other systems, such as how culture affects daily human activities. These findings suggested that the value-attitude-behavior hierarchy can be generalized under the cultural context to understand how cultural values affect attitudes and behaviors toward senior citizens.

Accordingly, developing positive attitudes toward senior citizens among young adolescents is a feasible strategy for improving young adolescents' relationships with senior citizens. Learning and preserving specific Chinese cultural values are strategies to maintain the relationship between the old and the young, especially for young Malaysian Chinese adolescents who are rarely exposed to these Chinese cultural values because of the school system they join. Educators may consider integrating specific cultural values in the school textbooks to inculcate particular positive attitudes toward senior citizens for these young adolescents in the school curriculum.

In conclusion, in terms of theoretical contribution, the study supported applying the value-attitude-behavior hierarchy to understand the influence of cultural values on the attitudes and behaviors toward senior citizens. Furthermore, the study revealed that other cultural values significantly influenced young adolescents' attitudes toward senior citizens. As M.Park and C.Chesla [21] proposed, focusing on filial piety and collectivism in Confucianism may interfere with exploring other cultural values. Accordingly, future studies may further investigate the influences of other relevant cultural values on the attitudes and behaviors of young adolescents toward senior citizens.

In terms of practical contribution, these findings are significant for the Malaysian Chinese community that is developing into an aging society within a decade, where senior citizens are usually cared for by the younger generation. Therefore, acquiring Chinese cultural values by young adolescents of Chinese origin in Malaysia has become a pressing act as it will help instill a positive attitude as the legacy of the community with the hope that these young adolescents will be more likely to take actions to improve quality of life of their senior citizens.

Nonetheless, the interpretation of the results should be with more caution. Although a purposive sampling method was used to recruit participants in this study, the findings may be generalized to only some young Malaysian Chinese adolescents studying in independent Chinese schools. Future studies may consider recruiting young Malaysian Chinese adolescents from national and international schools and different Chinese communities across the world, such as those of Taiwan and mainland China, to examine the robustness of the findings and to discern the relative impact of different Chinese cultural values on the attitudes toward older people in different sociocultural contexts. Furthermore, as a cross-sectional design was used in this study, it should be more prudent for the cause-and-effect interpretation. Meanwhile, an experimental design clarifies the cause-and-effect explanation of the results.

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Psychological Restoration and Nature Connectedness in terms of "Bottom-up" and "Top-down" Approaches to Understanding Interaction with Nature

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Relevance. The article presents an overview of notions about the foreign environmental psychology constructs — psychological restoration and nature connectedness. The constructs represent the effects of person's relationship with nature and are thought of as a resource of health/well-being. **Objective**. To reveal general characteristics of the constructs and to analyze them from the point of view of the "bottom-up" (evolutionary-psychological) and "top-down" (constructivist) approaches to understanding the salutogenic effects of interaction with nature. **Methods**. Analysis and generalization of theoretical and empirical research within the framework of foreign and Russian environmental psychology. **Results**. The constructs are characterized using the following criteria: basic conceptual assumptions, specific constructs, measures, empirical support. The theoretical foundations of constructs and their role in empirical studies are considered from the point of view of "bottom-up" and "top-down" approaches. Based on the review, we identified a trend towards the integration of approaches, and highlighted points that should be taken into account when studying the salutogenic effects of interaction with nature. Among them are mediation and moderation schemes, which include variables of psychological restoration and nature connectedness, they are "predisposed" to support "bottom-up" and "top-down" assumptions, respectively. When studying restorative environments, it is worth predicting the likely influence of "top-down" variables: traits, values, attitudes. In Russian studies, mostly appears the construct of connection with nature.

Keywords: psychological restoration, nature connectedness, bottom-up and top-down approaches, well-being, environmental psychology.

конструктов и их отношения в эмпирических исследованиях рассмотрены с точки зрения «восходящего» и «нисходящего» подходов. На основе проведенного обзора выделена тенденция к интеграции подходов и определены моменты, которые стоит учесть при исследовании салютогенных эффектов взаимодействия с природой. Во-первых, схемы медиации и модерации, включающие переменные психологического восстановления и связи с природой, «предрасположены» поддерживать «восходящие» и «нисходящие» допущения соответственно. Во-вторых, при изучении восстановительных сред стоит прогнозировать вероятное влияние «нисходящих» переменных: черт, ценностей, установок. Отмечено, что в российских исследованиях обсуждаемого направления фигурирует преимущественно конструкт связи с природой.

Ключевые слова: психологическое восстановление, связь с природой, «восходящий» и «нисходящий» подходы, благополучие, психология среды.

Introduction

The concept of the beneficial effects of the natural environment on human mental and physical health — such as relaxation, restoration, and vitality — has increasingly become the focus of psychological studies over the past two decades [52]. This growing interest is associated, according to experts, with concerns regarding the quality of the surrounding environment amidst advancing urbanization. This is rooted in the widely accepted notion that the environment has the potential to influence human health and well-being [13; 19; 24]. In the field of environmental psychology, research into salutogenic (supporting health and well-being) effects of nature has emerged as an actively evolving area in international science (North America, Europe, Australia, East Asia) [24; 28; 36].

This article presents a narrative review of scientific perspectives on two specific constructs within this domain: psychological restoration and nature connectedness. Each construct represents a fragment of the psychological reality influenced by human interaction with nature. Interaction can be with nature as a referent (physical reality) or with nature as a sign, but one way or another it produces certain changes in the human psyche. Both constructs are popular in environmental psychology, corresponding with specific areas of research. However, given their significance in understanding the psychological benefits of interacting with nature

[9; 32; 54], their spheres are increasingly overlapping (see Table 1).

The tasks of this article are: 1) to provide a general characteristic of constructs, 2) to examine the constructs and their possible relationships from the perspective of "bottom-up" and "top-down" approaches to understanding the salutogenic effects of nature, as the discussion of these approaches has become an area of significant focus in environmental psychology in recent years [20; 29; 40; 47; 51; 52]. "Bottom-up" theories are based on evolutionary psychological foundations and universalize the beneficial influence of the physical qualities of the environment on a person. "Top-down" theories explain the effects of nature not through the immanent qualities of the stimulus, but through a person's interpretation of this stimulus. The choice of the topic is determined by the scarcity of texts addressing these tasks in English and the extreme scarcity in Russian.

General Characteristics of Constructs

The term *psychological restoration* [32] or *restoration* [21], concerning the effects of being in nature, has become established due to the influence of well-known theories since the 1970s: Attention Restoration Theory (ART) by R. and S. Kaplan and Stress Recovery Theory (SRT) by R. Ulrich [22, p. 95]. The former focuses on restoring cognitive functions, particularly directed attention, af-

Table 1

The Number of Search Results in Google Scholar

Keywords	Year of Publication			
	1990—1999	**2000—2009**	**2010—2019**	**2020—2023**
psychology restoration nature connectedness	2	20	643	934

Note: Search Parameters: Any articles; All of these words appear anywhere in the article: *psychology*, *restoration*, and the exact phrase *nature connectedness*.

ter mental fatigue (*cognitive restoration*), while the latter focuses on reducing vegetative stress responses (*physiological restoration*) and improving emotional states by decreasing negative emotions and increasing positive ones (*affective restoration*) [43, p. 7]. Both frameworks are evolutionarily oriented and explain the effects of being in nature through the evolutionary benefits of perceiving its qualities [52, p. 38]. To some extent polemical, these theories in the 20th century demonstrated an inclination toward synthesis [27], which is now realized: contemporary empirical research often considers restoration as a complex phenomenon that combines cognitive and affective/affective-physiological recuperation [21; 30; 31; 53] (literature also includes social and other dimensions of restoration [43], yet here we adhere to the "traditional" boundaries of the concepts outlined by ART and SRT [9]). One definition of this complex phenomenon is "the recovery of physical and psychological adaptive resources depleted in the performance of daily activities" [21, p. 154].

As noted by one of the leading researchers on nature's effects, T. Hartig, the construct of restoration belongs to the framework of the relationship between an individual and their environment, which he, following S. Saegert and G. Winkel, terms "the adaptive paradigm" [22, p. 91]. Restoration is one facet of adaptation, alongside two others expressed in terms of stress and coping. The basic conceptual assumption of this construct is the need for periodic renewal of mental adaptive resources [Ibid.].

Empirical studies on the salutogenic effects of nature contact encompass various aspects of the restoration phenomenon, in other words, it's a general construct comprising several specific ones. For instance, one can distinguish between *restoration* and *restorativeness* [21]. "Restoration" emphasizes the individual's *state* as a result of their interaction with the environment. Its indicators may be subjective, such as when specific self-report scales are used (Restoration Outcome Scale [30]), or objective, in cases employing measurements of physiological (pulse, cortisol level) or cognitive (objective tests) restoration. "Restorativeness" emphasizes a person's *evaluation* of the environment. This evaluation assesses the specific restorative characteristics of the environment described by ART [27], for which specialized questionnaires are used (Perceived Restorativeness Scale [23]). One study mentioned over 10 self-report restoration/restorativeness scales [33]; no equivalent original or adapted tools have been identified in Russian psychology.

Although the heterogeneity of the listed measures leads to divergent results, the overall positions of ART and SRT are confirmed. For instance, a systematic review of 36 studies verifies the reliability of results for affective restoration, showing less consistent outcomes for physiological restoration [17]. A systematic review of 42 works confirms cognitive restoration but with a greater effect on working memory and cognitive flexibil-

ity than on attentional control [50]. A meta-analysis of 22 studies comparing restoration self-report scales confirms a more pronounced restorative potential of natural environments compared to urban ones [39].

In Russian psychology, the concept of restoration is represented in a limited manner, both in theoretical [2] and empirical research. Among the latter, one can mention organizational-psychological studies of work environments that consider natural elements and symbols integrated into office spaces as resources for psychological restoration [4; 5].

The terms used to define the second discussed general construct, nature connectedness, in foreign psychology vary: *nature affiliation* [25], *nature connectedness* [14], *sense of connection*, *relationship with nature*, *environmental identity* [45, p. 109], *human-nature connectedness* [10]. The underlying category behind these names circulates between "sense (of oneness)" [34], "relationship" [48], "identity" [45; 48]. Currently, there is no widely accepted definition; the concept is rather intuitively grasped. One definition of this construct is "sense of oneness with the natural world" [34, p. 504]. Nature connectedness can be conceptualized as *a state* induced by contact with nature [35; 41], or as *a personal trait* [35; 42], where an individual feels this connection "regardless of where one is" [9, p. 13].

Specific constructs of nature connectedness correspond to a range of psychodiagnostic instruments; empirically, their commonality is affirmed by a strong correlation of their indicators [45]. Among these concepts are emotional closeness to nature (Emotional Affinity Toward Nature scale); cognitive aspects (Implicit Associations Test — Nature); both cognitive and affective components (Connectedness to Nature Scale (hereinafter — CNS)); a combination of emotional, cognitive, and behavioral aspects (Nature Relatedness Scale); environmental identity (Environmental Identity scale (hereinafter — EID)) [Ibid.], among others. One study examines 26 tools measuring similar phenomena [49]. Russian research utilizes adapted foreign methods, such as "Шкала связи с природой" (adaption of CNS) [6], "Шкала идентификация с природой" (adaption of EID) [15], as well as original instruments: "Люди и растения" (People and Plants) [3].

The origin of the general construct is associated, on the one hand, with global urbanization [25], and on the other hand, with global environmental issues [42]. The fundamental conceptual assumption can be formulated as follows: the sense of connection with nature compensates for alienation from nature (conceptualized as a harmful deficit, "nature starvation" [25, p. 232]), and also promotes ecologically oriented attitudes and actions. In essence, this construct is conceptualized as a resource simultaneously for health/well-being and pro-environmental behavior [38]. In a systematic review of 16 meta-analyses (832 experimental and correlational

studies), it was demonstrated that nature connectedness has a positive influence on pro-environmental behaviors and values, and also positively correlates with the same phenomena and with health/well-being [10]. *Well-being*, a positive psychological aspect of health, stands as one of the most prominent variables validating the beneficial effects of nature connectedness [45, p. 113]. A meta-analysis of 30 studies indicates that a stronger nature connectedness aligns with higher levels of hedonic well-being [14], while a similar pattern is evident concerning eudaimonic well-being in a meta-analysis of 20 studies [46]. This consistent pattern is also corroborated in Russian studies concerning the relationship between nature connectedness and well-being [1; 6; 26].

Theoretical foundations of constructs

The difference between "bottom-up" and "top-down" restoration theories lies in the explanations for the restorative effects of nature contact. "Bottom-up" theories explain these effects through evolutionary mechanisms and the "universally beneficial" properties of the environment, while "top-down" theories attribute them to sociocultural mechanisms — cognitive constructs, attitudes, and values.

Traditionally recognized as "bottom-up" theories are ART and SRT, along with the biophilia hypothesis by E. Wilson, which suggests that for successful adaptation, human ancestors needed to be emotionally responsive to non-threatening non-human life forms [9]. This need continues to contribute to subjective security and productivity in humans. "Top-down" or constructivist ideas are more recent. An example is the Conditioned Restoration Theory by L. Egner et al., which suggests that the restoration process follows the classical conditioning scheme: leisure in a natural environment triggers feelings of relaxation and pleasure, cementing the "nature+restoration" association [18]. Other "top-down" concepts, supported by empirical research, explain restoration through the influence of cognitive constructs (learned positive associations with nature) [20; 29] or personal variables (place attachment) [40; 51].

Among the explanations of nature connectedness, one can also recognize tendencies towards the discussed poles. On the "bottom-up" side, we find the same biophilia hypothesis [45, pp. 110, 112], while on the "top-down" side, there's the Self-Determination Theory by R. Ryan and E. Deci, where nature connectedness is seen as satisfaction a basic psychological need for relationships. Unlike the biophilia hypothesis, the sense of connectedness here is determined not "objectively", but subjectively (for individuals with autism, engaging with nature can fulfill the need for relationships) [16].

Particularly noteworthy is the recent trend toward integrating approaches. An example covering both discussed constructs is the work of G. Barbiero and R. Berto. On one hand, the authors conceptualize restoration, as understood by ART (1), and nature connectedness (2) as *two components of biophilia*, reflecting evolutionarily ingrained tendencies in humans "to *focus upon* life and lifelike forms" (1) and "*affiliate* with them emotionally" (2) [9, p. 12]. On the other hand, "top-down" explanations do not contradict the biophilia hypothesis. Biophilia is not inevitability but potential ("weak learning rules"), requiring cultivation in an individual's psyche through accumulating experience of nature contacts [8, pp. 4, 8]. Apparently, the non-realization of this potential does not deprive individuals of receiving restorative benefits. In one of the works, a hypothesis is proposed according to which the level of restoration is a product of both the nature connectedness and the "biophilic quality" (naturalness level) of the environment. A high level of restoration can be produced by a combination of high connectedness and high biophilic quality of the environment, as well as a combination of low connectedness and low biophilic quality [11, p. 14]. Thus, "bottom-up" and "top-down" logics merge at the point of implementing initial assumptions.

The other group of authors presents a similar scenario, offering *an evolutionary-constructivist perspective* on restoration: an inherent positive response to natural stimuli can be modified by "top-down" factors, such as the level of nature connectedness [29].

Another example of understanding restoration is interesting as a broad synthesizing gesture. This is *a three-level model of restoration* in urban environments, which can be adapted for natural environments as well. The first level of the model is *containment*: the absence of noise, pollution, crowds. There are no psychological changes at this level; it serves as a premise for restoration. The second level is *passive restoration*, induced by the "bottom-up features" of the urban environment, such as biophilic design. In the case of nature, these are the qualities of the environment itself. The effects of this level are the forms of restoration described by ART and SRT. The third level, *active restoration*, works through "top-down features", the personal contribution of the individual: place attachment, place memories, sense of belonging (in the case of a natural environment, this could be nature connectedness). The effects of the third level: cognitive engagement, eudaimonic well-being [12].

The other theoretical framework integrates restoration and nature connection "under the umbrella" of mindful engagement in nature experiences (both effects are supported by a practice of mindfulness). The authors distinguish between both perceptually-oriented *external awareness* and *internal awareness* of emotions, thoughts, and ideas. They note that in a "more restorative", i.e., more natural environment, the first form might be suffi-

cient for psychological benefits, while in perceptually restricted conditions (plantings in a busy city) the second one might be needed [32]. It's easy to observe here the analogy between passive "bottom-up" and active "top-down" restoration.

Relationships between constructs

Given that both the constructs of restoration and nature connectedness embody positive psychological effects of engaging with the natural environment, their convergence in research domains was inevitable.

Their relationships can also be systematized based on the distinction between the bottom-up and top-down approaches. Specifically, from this standpoint, one can consider the application of mathematical-statistical methods such as *mediation analysis* and *moderation analysis*, often used to test assumptions about the relationship between the discussed constructs. The use of mediation analysis in studying the relationships between constructs is more characteristic of the "bottom-up" approach. As noted by P. Olivos and S. Clayton, nature connectedness "could be considered a mediator variable because of its possible phylogenetic origin and a potential universal explanation of the sense of belonging to nature" [45, p. 118]. The authors discuss here the mediation of relationships between variables of nature exposure and well-being. In our view, this notion can be extended to other relevant mediation schemes as mediation reconstructs *the paths of effects* ("how or why such effects occur" [Ibid.]), representing a universalizing assumption par excellence. Along with that, moderation analysis tests *conditions* ("when certain effects will hold" [Ibid.]), which constitutes a differentiating "top-down" assumption.

For instance, the mediating role of nature connectedness in the relationship between nature perception and affective-cognitive restoration has been experimentally confirmed [35]. In other words, sense of oneness with the natural world acts as the "active ingredient" in restoration. In another experiment, affective restoration mediates the effect of outdoor walks concerning nature connectedness [41]. This means that the path from nature contacts to the sense of connectedness is facilitated through affective restoration. Both studies, despite the contrasting directions of effects in regression models, pose questions and interpret results within the framework of a "bottom-up" approach.

An example validating the "top-down" hypothesis is a study confirming the moderating role of nature connectedness in the relationship between landscape perception and affective restoration [37], where higher affective restoration was observed among individuals feeling more connected to nature. Another instance is a study where nature connectedness acts as a grouping variable (that is

conceptually close to moderation analysis). It was confirmed that the nature connectedness variable "switches modes" of restoration: the low-urban-oriented group (or nature-oriented) showed the highest restoration effect after a walk in the forest compared to the high-urban-oriented group [44].

In summary, depending on the theoretical framework and study design, we obtain arguments supporting both "top-down" and "bottom-up" logic of relationships. Such polyphony can be predictable for two reasons. Firstly, due to the complexity of constructs and the diversity of their indicators, not to mention the vast array of additional variables (socio-demographic characteristics, outdoor activity types, environmental types) beyond the scope of this article. Accordingly, different data configurations may cause different relationship patterns. Secondly, the approaches integration described above allows validating both positions.

Given the aforementioned, it could be suggested that the constructs are *interdependent*. This formulation doesn't contradict either approach, signifying that a stronger nature connectedness is observed in a more restorative natural environment, and conversely, more pronounced restoration is documented in the environment respondents feel more connected to [54]. As articulated in one recent study, restoration and nature connectedness "appear to mutually reinforce one another" [32, p. 2].

Conclusion

Psychological restoration, recovery of depleted adaptive resources through nature perception, and *nature connectedness*, sense of oneness with the natural world, are constructs used in environmental psychology to describe the psychological effects of human-nature relationships.

The theoretical foundations of these constructs and their relationships in empirical studies are examined through the lenses of both "bottom-up" (evolution-oriented) and "top-down" (constructivist) approaches to understanding the salutogenic effects of nature. A *tendency towards integration* observed in the discussed research area is highlighted. On one hand, this is integration of the approaches where the psychological effects of relationships with nature depend on both the qualities of the environment and the characteristics of a person. On the other hand, this is conglomerate of psychological effects: restoration and nature connectedness tend to be considered mutually reinforcing phenomena. Hence, in exploring the psychological benefits of nature, both constructs are increasingly taken into account in recent years.

The review's limitations include the generalizing perspective used to consider the constructs, which might

create an impression of their homogeneity. However, restoration indicators are quite heterogeneous; the construct in some cases might be represented by cortisol levels in saliva [17, p. 11], while in others by evaluating statements like "I would like to spend more time looking at the surroundings" [23, p. 182]. Although there's currently no basis to isolate any parts from the basic construct, generalizing such diverse phenomena should be approached with caution. And, of course, "bottom-up" / "top-down" frameworks cannot exhaust the topic of interaction with nature.

This article might be of interest to researchers studying recovery from mental fatigue or stress and those exploring the effects of nature contacts within Russian-speaking samples. The review allows for the identification of aspects worth considering in such research. Firstly, mediation and moderation models involving restoration and nature connectedness variables are inclined to support "bottom-up" and "top-down" assumptions, respectively. Secondly, when studying restorative environments, it's important to forecast the likely influence of "top-down" variables — attitudes towards nature, value preferences, etc.

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DISCUSSIONS AND DISCOURCES
ДИСКУССИИ И ДИСКУРСЫ

Personality Syndromes in the Light of the Historical Crisis in Psychology, a Cultural-Historical Activity Theory Position

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Following the cultural-historical activity theory guidelines, this study investigates the potential consistency between scientific methodologies and personality syndromes. By minding not falling into rough simplification and misleading generalization, our methodological assumption suggests a line of historical similarity worthy of being investigated deeply in future studies. The study looks into the consistency in the historical development of the methodologies representing 'the symptoms' of psychology as a science living through its historical crisis, on one hand, and the personality syndromes representing the 'implicit methodologies' of individuals, on the other. Such an approach allows one to draw more on personality syndromes, their taxonomy, and their root, in addition to the potential predictions of their destiny. A crucial methodological consideration that allows such dependency is that science is a special form (highly abstract and generalized) of creative activity sharing a similar nature to the daily ordinary creative activity of personality. So, science might represent an early historically elaborated version of the ordinary-daily form of activity structure, which allows us to hypothesize that personality syndromes, in their own characteristics, might share the developmental tendency of the noted methodologies rooted in the subjective-objective epistemological rupture as a ground of the historical crisis.

***Keywords*:** **p**sychology, crisis, methodology, personality syndromes, Cultural-Historical Activity Theory (CHAT).

Синдромы личности в свете исторического кризиса в психологии, позиция культурно-исторической теории деятельности

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Следуя принципам культурно-исторической теории деятельности, данное исследование изучает потенциальное соответствие между научными методологиями и синдромами личности. Не впадая в упрощение и ошибочное обобщение, наше методологическое предположение состоит в том, что существует некая линия исторического сходства, которая должна быть глубокого изучена в будущих исследованиях. В данной статье рассматривается последовательность исторического развития методологий, выявляющая «симптомы» исторического кризиса психологии как науки, с одной стороны, и синдромы личности, представляющие «имплицитные методологии» индивидов — с другой. Такой подход позволяет больше узнать о синдромах личности, их таксономии и корнях, а также сделать прогнозы на будущее. Важнейшим методологическим соображением, допускающим такую зависимость, является то, что наука — это особая, высокоабстрактная и обобщенная форма творческой деятельности, имеющая сходную природу с повседневной творческой деятельностью человека. Таким образом, наука может представлять собой раннюю исторически проработанную версию структуры обыденно-повседневной формы деятельности, что позволяет предположить, что синдромы личности могут иметь ту же тенденцию развития отмеченных методологий, берущую свое начало в субъективно-объективном эпистемологическом разрыве как основании исторического кризиса.

Ключевые слова: психология, кризис, методология, синдромы личности, культурно-историческая теория деятельности (КИТ).

Introduction

In his book "The Mind of a Mnemonist: A Little Book About a Vast Memory," Luria states that "psychology has yet to become a science that is capable of dealing with the really vital aspects of human personality...the development of such a psychology is a job for the future" [29, p.159], by defining how these syndromes are sociohistorically formed is "one important method in the approaches used" [29, p. 160]. However, mainstream psychology drowned deeper in empiricism, fragmentation, and eclecticism, under the historical crisis of psychology [46] that is neglected and remained under-referenced [10; 21], hence, tearing down psychology foundations

and threatening its coherence, leading it to be *markedly heterogeneous, and* witnessing a critical situation along with the entrenchment of realist ontology, quantitative methods, positivist epistemology, and the absence of an axiological frame (see [6; 17; 38; 44]) in addition to the lack of "knowledge of theory, theory methodology, and theory needs with respect to changing from a disunified to unified science" [41, p. 3], which transformed psychology into a mystical and depsychologized domain under two tendencies simultaneously (the naturalistic and the idealistic) governed by its epistemological and methodological crisis [10]. These symptoms as an "extreme expression of solipsism and idealism in psychology" [46, p. 259], along with the lack of a unified definition of the

object of study, appears also in personality studies (see [7]), same as in artificial intelligence as an applied field of psychology that inherited the crisis [10]. The previous condition "increased the significance of the work [Vygotsky's work]" [46, p. vii].

The noted context is crucial in how can the evaluation of scientific methodologies (and their origin) aid our investigation in personality research because it provides us with a general historical tendency of personality structure, and *personality syndromes, derived from* neuropsychological syndromes, coined by Luria [51].

However, in this paper, we will limit ourselves to laying down the methodological guidelines that allow such a similarity, and in later work, we will apply these guidelines to investigate the mainstream taxonomies of personality disorder.

In the rest of the paper, our leading hypothesis is that the *symptoms of the crisis (represented in methodologies)* that we witnessed in psychology, have a potentially similar version in the field of personality study in the form of well-elaborated syndromes under the statement: *a methodology is the implicit personality of science, while personality is the implicit methodology of the individual.*

In doing so, our methodological propositions are one, both the scientific activity and the daily-ordinary activity are two forms of creative activity. However, since scientific activity (realized in methodologies) is a *special* highly abstract creative activity (like art), therefore, it forms an early (historical) well-elaborated version of the *daily* activity (condensed in individual personality) due to that science is required to be self-aware by defining its tools explicitly: "first, science accepts as a principle that its every step has a critical basis" [19, p.56]. The second methodological proposition is that since psychology (as our domain of science) looks into the individual (especially personality) as a main object of study, the outcome of psychological schools' investigation is an abstract form of that individual. It is about individuals' motivations, goals, origins of consciousness, normality, and pathology, and more importantly, psychology studies the interaction of individual and environment, etc... In general, psychology is the human abstracted (defined) in the language of science. By building on the previous two methodological propositions, the third methodological proposition is that both psychology and personality are the representation of the worldview embedded in the mainstream ideology that shapes the epistemological starting point of science and daily activity. Fourth, the *pathological* history of psychology is a potential source of understanding the pathology in personality. By that, we are not pathologizing science, but it is a metaphor to describe the crisis as a disturbance in achieving functionality about revealing the reality's movement and laws, both in science and daily activity. In the later paragraphs, we will expand on these methodological propositions.

About *special* and *daily-ordinary* creativity

In brief, the first methodological proposition is that all human creative activities both special (art and science) and daily/ordinary, as part of the activity system,

share a mutual root of being contradictions-based functions to adapt by grasping and controlling the objective context through facing and overcoming perturbations with the goal of transforming reality, or being through becoming hence, the meanings that form the fabric of consciousness emerge (as a new quality) representing the abstraction of functional internal content (hence, allows generalization) of phenomena, that is crucial for creativity (e.g., see [10; 11; 12; 28]).

So, all the forms of mental activity are creative, both on the ordinary-daily and special levels "aimed at producing 'alternative worlds'" [14; p.95]. The only difference is in the degree governed by the components of the contradictions (see, [12]).

The similarity between special and daily forms of creative activity is at the functional and structural levels. For instance, science is a "general labor" [see, 14]. Moreover, in Vygotsky's theory of art, "aesthetics is a matter of delayed action...a vague great feeling of wanting to act and react... [and an] organization of our future behavior" [28, p. 247—8], and holding a transformative function in reality similarly to daily-ordinary life activities [e.g., 12; 28; 31].

Methodologies and personalities as instruments in different activity systems

The second methodological proposition is that psychology, as a science about the individual (and personality), and the individual personality, they both share a similar object of activity. The first (psychology) handles its own topic in scientific language, while the second (the individual) handles it relatively in the *folk psychology's* language of daily consciousness since the daily conditions rarely allow the general population to reach a high level of abstract thought [see 45]. So, since both share a similar *object* of activity, i.e., mastering the truth about personality and mastering the personality itself [see 45, p. 342], the *tool* of this activity should share a similar aspect as well. For CHAT, the object of activity requires the usage of one instrument (a tool) and not the other. For Leontiev, "the instrument is the first real abstraction" [26, p. 23] about the object itself in the context of transforming that object. Indeed, in science, the definition of methodology is "a body of methods, rules, and postulates employed by a discipline: a particular procedure or set of procedures" (see [80]), and "a system of ways of doing, teaching, or studying something" (see [4]). Methodology "refers to the diverse principles, procedures, and practices that govern empirical research" [23, p.3]. It is "the approach in which research troubles are solved thoroughly. It is the science of studying how research is conducted systematically. In this field, the researcher explains himself with the different steps generally taken to study a research problem. Hence, the scientific approach which is adopted for conducting a research is called methodology" [34, p.1].

In turn, Vygotsky considers the methodology as the representation of the objective movement of reality. He states:

"we must immediately accept that reality determines our experience, the object of science and its method and

that it is entirely impossible to study the concepts of any science independent of the realities it represents. Engels [1925/1978, p. 514] has pointed out many times that for dialectical logic the methodology of science is a reflection of the methodology of reality. He says that 'the classification of sciences of which each analyzes a different form of movement, or a number of movements that are connected and merge into each other, is at the same time a classification, an ordering according to the inherent order of these forms of movement themselves and in this resides their importance'" [46, p. 255].

On the other hand, "The personality of a man is in no sense preexisting in relation to his activity; just as with his consciousness, activity gives rise to personality" [26, p. 105].

Therefore, the self is the crystallized product of the activity processes (the practice) embedding the "logic of functioning and developing of human practical purposeful activity" [42, p. 484.], and directed to handle objects and *reality testing* (see [46] for *object relations theory* about personality). CHAT considers "the constant flow of activity as the source of mind and self" [42, p. 484]. On the other hand, the self has the role of being an orienting and regulating element, this is the functional response under the requirement of social context (e.g., see [26; 30]). It is the "embodiment of a *meaningful life project*... that reflects and also organizes the most significant aspects of one's life" [42, p. 494].

Personality is "the regulation of the self and its relationships to internal and external objects" [93, p. 199]. So, both methodologies and personality are tools formed by *the object* of the activity as *ways of doing* and *interpreting* (see [26; 42]).

Worldview both in psychology and personality

In addition to being both forms of *creative* activity, having the functional role of an *instrument/tool*, and having a mutual *object* of activity, the third methodological proposition is that both methodology and personality, in practice, represent a worldview, an epistemology. For instance, "science is philosophical down to its ultimate elements. It is permeated, so to speak, by methodology" [46, p. 293]. Also, although a worldview (ideology) in science is usually hidden, it represents the sociohistorical laws affecting science from within. However, sometimes the worldview reveals itself when the scientific idea

"*developed to its logical extremes, carried out to its ultimate conclusion, generalized as possible... show its real face... it is actually only now, reduced to a philosophical form, apparently obscured by many later developments ... that the idea reveals what it wants, what it is, from which social tendencies it arose, which class interests it serves. Only having developed into a world view or having become attached to it, does the particular idea change from a scientific fact into a fact of social life again... it reveal its social nature... but was hidden under the mask of the neutral scientific fact it impersonated*" [46, p. 242—3].

The aforementioned represents why the mainstream methodologies that represent and conserve the epistemo-

logical rupture, i.e., the subjective-objective, and idealist-materialist, are the *symptoms* of the crisis, reflecting, in the final analysis, the social rupture between the mind and the reality due to the conservative nature of the mainstream mind trying to conserve the dominant social relationships of production [6]. Additionally, Vygotsky notes that "such antipodes [idealist-naturalist] ... do not merely contradict each other, but necessarily presuppose each other's existence ... with a coincidence of the basic assumptions, starting-points and philosophical premises of dualistic idealism" [46, p. 259—260]. So, "for science as a social function reflects at present the contradictions with society" [19, p. 57] characterized by "the separation of theory and action... [as] a historical phenomenon" [19, p.53] which reveals the dependency of mastering "the truth about personality and personality itself" and mastering "the truth about society and society itself" [46, p. 342]. Furthermore, epistemology is embedded in worldview and culture that have an impact on behavior and personality formation (e.g., [2; 5; 49]), as a version of the *narrative*, including moral values and identity [20; 27]. The mainstream worldview, both in science and daily activity, reflects a rupture between the sense-making subjective space (the interpreting space of the thinking component of the mind, i.e., the *I*), and the objective meanings space (the material that requires interpreting, i.e., the *self*-related meanings) explained mainly by Vygotsky and Leontiev [see 11]. In science, it leads to what Paul Komesaroff calls *the objectivity crisis* in the age of the crisis of science, hence, threatening the epistemological commitment of science "that science no longer answers the important questions of the times [see 24, p. 371], turning "its back on the causes of the social crisis and even downgraded the means of investigating it" [19, p. 56].

On the level of the individual, the noted rupture could lead to a psychological catastrophe [see 11] when:

"*"in given circumstances, the lack of correspondence of sense and meaning in individual consciousness may take on the character of a real alienation between them, even their opposition... and then they begin to live as if in someone else's garments. It is necessary to imagine the major contradiction that gives rise to this phenomenon. This makes it possible to introduce into the individual's consciousness and impose on him distorted or fantastic representations and ideas, including such as have no basis in his real practical life experience... in itself it creates only a devastation capable of turning into a psychological catastrophe" [26, p. 91, 93   015194].*

Indeed, the problem and dichotomy of the unconscious (meanings space)-conscious (senses-making space) "is of decisive methodological importance ... [and] fundamental for our science, and its very fate depends on the way it is solved" [47, p. 110]. Overall, the epistemological rupture, as a worldview, appears both in psychological science and personality.

Pathology as the Key to Normality

The fourth methodological proposition is that since the crisis in psychology is a well-elaborated and highly abstract version of the crisis in creative activity since

psychology is the abstract explicit definition of the individual elevated into epistemological and methodological language, it provides general aspects of the pathology of the daily-ordinary creative activity. Methodologies in psychology are an abstract form of personality syndromes. It is the methodological principle of the "reverse" method noted by Marx when the mature phenomenon (methodologies in our case) is the key to understanding the lower one (personality syndromes).

"A certain stage of development and the process itself can only be fully understood when we know the endpoint of the process, the result, the direction it took, and the form into which the given process developed... Having arrived at the end of the path we can more easily understand the whole path in its entirety" [46, p. 235].

Also, "the essence and nature of the phenomena studied by psychology can be revealed in their purest form in the extreme, pathological form...The key to psychology is in pathology" [46, p. 234]. So, an early highly-elaborated and abstract version of *special pathology* (in the *special* form of creative activity) might assist in understanding the *ordinary pathology* (in the *daily-ordinary* form of creative activity), which might be an answer to the question about when: "personality pathology take its lead from dimensions of normal personality?" [8, p. 26]! Vygotsky did not draw such a similarity between the methodological crisis and personality syndromes. Instead, we borrow from Vygotsky his methodological assumption that in pathology lies the key to understanding *normality*, hence, we do not consider personality syndromes as the exact copy of scientific crisis' symptoms (its methodologies), but only to grasp their similar developmental tendencies and internal laws.

Methodologies as Symptoms and Personality Syndromes

Another shared aspect between methodologies and personality syndromes is *consistency*. Methodologies have a *consistent* nature. For instance, we have the positivist, phenomenological, introspective, etc... These represent consistent ways of *behavior* in science. On another hand, Behavioral Syndromes, as defined in pieces of literature, "behave in a consistent way through time or across contexts and is analogous to 'personality' or 'temperament'" [3, p. 755], and are also conceptualized as behavioral type [22]. Additionally, "a person's personality typically stays the same over time... Personality disorders are long-term patterns of behavior" [1]. According to the mainstream taxonomy, one can find "10 specific types of personality disorders in the DSM-5-TR" and "they affect at least two of these areas: Way of thinking about oneself and others; Way of responding emotionally; Way of relating to other people; Way of controlling one's behavior" [1]. Another taxonomy, in alternative DSM-5 (AMPD), considers 5 specific types [see, 20].

Still, this consistency is only relative over time. As noted in the **Introduction**, recently in psychology, there is a lack of methodological theory, absence of an axiological frame, heterogeneity, and eclecticism (multi-

tude of methodological guidelines accepted at the same time), hence, *"threatening the coherence of psychology and watering down the foundation of scientific rationality"* [10, p. 4], representing that methodologies' consistency is shacked. On another hand, in the past decades, the personality has witnessed such a threat to coherence. Schizophrenia cases witnessed a significant increase (see [13]). This number is only according to the official record due to the low compilation of mental health statistics [13], and due to the that personality disorders (PDs) are under-recognizing in clinical practice and "not included within the policy-informing initiatives scope [50, p. 26].

Furthermore, similar to methodologies that are continuously proliferating, with no stable categorization, but developing on the continuum between the two poles of the epistemological rupture, PDs also in continuous development. These *disorders have dimensional constructs with no qualitative distinct nature*, and "can be located on a continuum" making their *separate constructs* taxonomy, e.g., in DSM-5, "has serious limitations... [and] may not be valid ... and deemed insufficient" [20, p.1]. Another aspect of PDs is the *impairment* level of personality functioning, which goes along with the *fragmentation* in methodologies. Thus, both are on a continuum and represent impairment [20], which goes with CHAT's analysis that the malfunction of the self is noted in sections Methodologies and personalities as instruments in different activity systems and Worldview both in psychology and personality [see 11]).

According to some literature [see 20], the methodological tool for investigating PDs is under debate. So, the proposed methodological position in this paper might contribute to the theoretical expansion of the taxonomy of PDs and their causal development. In a word, we say in advance that the development of PDs is also governed by the similar tension between the two poles (the idealist and the naturalistic) of the epistemological rupture governing the development of mainstream methodologies in psychology. An example is the a*sceticism-consumerism personality* (e.g., see [16; 37; 39]). *Asceticism*, by neglecting (withdrawing from) the environmental temptations, represents the idealist pole in methodology, while the other pole, i.e., *consumerism* characterized by *accumulation and consumption of material resources* [18], represents what Alberto Moravia named as the state of the *worm man* [35], is similar to the empiricist, positivist, and the pure sensualist quantitative methodologies following the formula "all we needed was more of the same" [9, p. 86]. A recent version of this tension is condensed in the individual-society rupture, due to the individualistic ideology of postmodernity that promotes disintegration, contrasting rationality, and the nihilistic negation of meanings and *truth*. It is the crisis of the individualistic project, and the disintegration of its narrative, goals, etc., leading to misery, and inauthenticity resulting in schizophrenia as a disturbance of real activity (see [13; 52]). It is the general *crisis of the mind* in modern times [12]. Due to the crisis, if the "wasteful dispersal of intellectual energies... has characterized the course of science over the last century" [19, p. 57], in the individual case, is the catastrophe in the psycho-mental

plane (see section: World view both in psychology and personality). Also, similar to mainstream methodologies when the idealist pole recalls and asks for the empiricist pole [46], in personality syndromes as well, more tension in the self-centered narcissistic pole recalls more tension in the consumerist one [40]. Thus, the current state both in science and personality and due to the crisis in the social mainstream project is "when relationships have so far developed and conflicts of interest have reached such an intensity that even the average eye can penetrate beyond appearances to what is really going on" [19, p. 55], hence, forcing both science and personality to announce the mainstream worldview that conserves the rupture, even it will lead to the disintegration of the structure of activity and mid itself.

Conclusion

Regarding the question in personality studies about "Which content area and its organizing principles—the interpersonal, behavioral, cognitive, existential, biophysical, or psychodynamic — is most fundamental?" [50, p.26], this study proposes a functional historical-comparative methodology in investigating the development and tendency of personality syndromes and their classification through the investigation of the methodologies in psychological science. By considering that both methodology and personality share a similar functionality as a tool and a similar object of activity, i.e., individual, embedding the mainstream worldview and epistemic standpoints, the paper suggests that both representing the outcome of a crisis in their domain, under the general crisis of creative activity [12], with the pathology in abstract activity (science) provides a mature and elaborated version of what less abstract activity (daily-ordinary) might become. It is not an attempt to pathologize science but to discover the historical tendencies in several activity systems when the highly abstract ones (as in science) could assist us and inform us about how the schema of ordinary-daily ones might develop. Overall, methodologies as symptoms of the crisis in science and personality syndromes as the symptoms of the crisis in individual-society interaction and considered rooted in the epistemological rupture and due to the tension between two poles of the rupture, i.e., the pure idealist and the pure naturalistic. Moreover, due to the lack of space, an extensive investigation into which personality syndromes are similar to which methodologies will be a topic for another study. Again, our concluding statement is: *a methodology is the implicit personality of science, while personality is the implicit methodology of the individual.*

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MEMORABLE DATES
ПАМЯТНЫЕ ДАТЫ

On the 100th Anniversary of Vladimir Ivanovich Lubovsky's Birth (15.12.1923—9.11.2017)

15 December marks the 100th anniversary of the birth of Vladimir Ivanovich Lubovsky, an outstanding Russian psychologist and defectologist, one of the founders of special psychology, Doctor in Psychology, Professor, Academician of the Russian Academy of Education.

V.I. Lubovsky's entire scientific biography was connected with the cultural-historical and activity-based scientific school in Russian psychology. As a third-year student, he came to Aleksandr Romanovich Luria's laboratory at the Burdenko Institute of Neurosurgery and began his research work under his supervision. In 1952, the laboratory was closed, but the Institute of Defectology created a laboratory of clinical and psychological study of abnormal children, where the teacher was followed by his students, including A.I. Mescheryakov, E.D. Chomskaya, V.I. Lubovsky. All his life, V.I. Lubovsky was grateful to his teacher for the role that A.R. Luria played in his development as a scientist and for these years of joint work.

We would like to emphasize the great importance of V.I. Lubovsky's works for cultural-historical psychology and, firstly, for that area of it, in which L.S. Vygotsky saw most of the regularities of child development, which later became the principles of the theory he created. In 1971, V.I. Lubovsky first published his article "General and Specific Regularities of the Development of Abnormal Children's Psyche" [2], in which he not only brought to a new level G.Y. Troshin's and L.S. Vygotsky's ideas about the commonality of regularities of normal and abnormal development, but also made a huge step for the creation of special psychology as a holistic science. V.I. Lubovsky valued nothing he did during his long life in science as highly as the concept of general and specific regularities of

Vladimir Ivanovich Lubovsky, winner of the Great Patriotic War, telephonist of the engineer-sapper brigade, wounded twice severely, finished the war in Prague, awarded the Order of the Patriotic War of II degree and the Medal "For Combat Merits". Closing in the line of our teachers who defended the country and defended science to the end

A.R. Luria's students, young employees of his laboratory of clinical and psychological study of abnormal children at the Institute of Defectology of the Russian Academy of Sciences (now the Institute of Special Education of the Russian Academy of Education). Seated from left to right: E.D. Chomskaya, N.N. Zislina, L.A. Novikova, E.N. Pravdina, N.P. Paramonova. Standing: A.I. Mescheryakov, V.I. Lubovsky. 1955

impaired development. His many years of research, summarized in his doctoral dissertation monograph [3], provide an opportunity to take a new look at the unity of word and action, noted by L.S. Vygotsky in "Thinking and Speech".

From the standpoint of cultural-historical theory, V.I. Lubovsky analyses M. Donaldson's views [1]; in an article published in the journal "Cultural-Historical Psychology" on the 110th anniversary of L.S. Vygotsky's birth [4], he traces the development of ideas about the diagnosis of child development, including impaired development, about ways of "growing into culture" of children with developmental disorders and ways of compensating for limitations. In his recent works, he brings to a new height L.S. Vygotsky's ideas, which he formulated in "Diagnosis of Development and Pedological Clinic of Difficult Childhood", about the need to identify the structural aspect of symptom-complexes of abnormal development [6] and about the possibilities of their diagnostic study [5].

He passed away shortly before his ninety-fourth birthday, but he had many other research plans and ideas for new articles. V.I. Lubovsky's scientific heritage and his importance for cultural-historical psychology is waiting to be comprehended.

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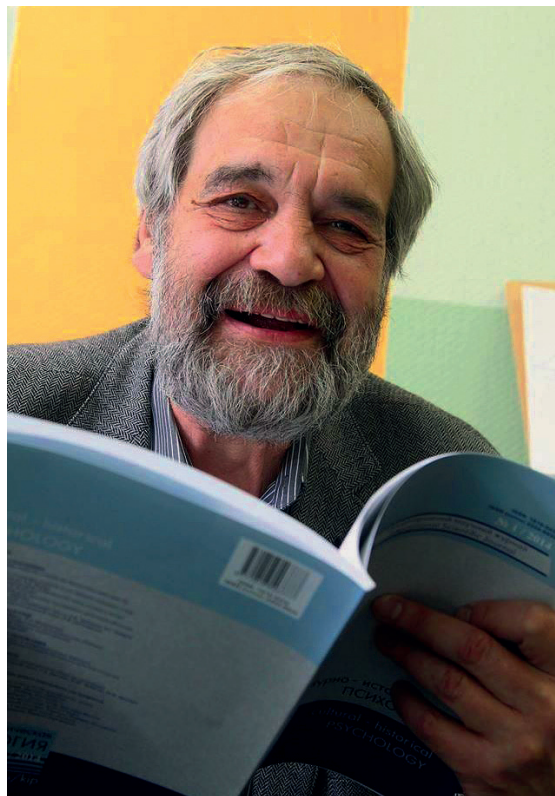# Dedication to Boris Daniilovich Elkonin (12 March 1950—14 November 2023)

Photo by A.A. Shvedovskaya

In Memory of Boris Daniilovich Elkonin

On 14 November 2023, a severe illness cut short the life of Boris Daniilovich Elkonin, our colleague and friend, Doctor in Psychology, Professor, Head of the Laboratory of Psychology of Primary Schoolchildren at the Psychological Institute of the Russian Academy of Education, President of the International Association for Developmental Learning, Rector of the Open Institute "Developmental Education", Editor-in-Chief of the journal "Cultural-Historical Psychology".

B.D. Elkonin was one of the brightest, generous, caring and beloved by MA students mentors who accompanied their work on MSUPE programme "Cultural-Historical Psychology and Activity Approach in Education".

Boris Elkonin was born on 12 March 1950 into the family of psychologist Daniil Borisovich Elkonin, a pupil of L.S. Vygotsky. He became not just an heir to the family name. Boris Pasternak wrote: "There are many talents, no spirit". Mighty spirit and great talent met in D.B. Elkonin, the continuation of their meeting was B.D. Elkonin's life. The continuation of the father's work by his son turned out to be not only organic and natural, but also extremely productive.

B.D. Elkonin's book "The Psychology of Development" (in the tradition of L.S. Vygotsky's cultural-historical theory), published in 1994 and reprinted in different versions several times, became a milestone for cultural-historical psychology. Daniil Borisovich called Vygotsky's psychology non-classical; Boris Daniilovich sharpened the meaning of his father's assessment in a special way.

The idea that human life is culturally mediated took the form of the idea of intermediation as the first form of mediation. Cultural instruments, means, tools, etc., are themselves only elements of a special environment, the nature of which we can say nothing about until we see in their bearers, manifestors, in B.D. Elkonin's terminology, living people, co-participants in the individual life of each person from the moment of birth.

Boris Daniilovich was able to read this theoretical message in Lev Semyonovich's and Daniil Borisovich's works and developed his picture of "cultural development" on this basis. A variety of developmental processes had been studied in cultural-historical psychology before him, but the mechanism and structure of the act of development, which is inconceivable outside the mediating subjectivity of the other person (including himself as the other), is Boris Daniilovich's fundamental discovery. It is the closure of any understanding and explanation within the framework of cultural-historical psychology.

Boris Elkonin himself was and remains the mediator between the non-classical psychology of our classical teachers and the science of the 21st century, the era of the global "post-ne...", where everyone will have to become disciples of the classics anew. This is the only way to prevent the disintegration of the bond of time. For times, time is not in the natural flow of events, but in the events that people create for each other, in the events that form a special history. It is this history that interests cultural-historical psychology. L.S. Vygotsky, D.B. Elkonin, Boris Elkonin's first and main teacher, and Boris Elkonin himself were its creators.

B.D. Elkonin worked on those fundamental problems of developmental psychology and developmental education, behind which stand the eternal questions of L.S. Vygotsky's cultural-historical concept and "the ultimate meanings of education", as I.M. Remorenko accurately noted (his word is published below). At the end of the 20th and beginning of the 21st century Boris Elkonin actually problematized them anew and by this breathed new life, modernity, into the cultural-historical concept and its educational implementation. Perhaps, after L.S. Vygotsky, he was the only one in this tradition who turned not just to the study of diverse developmental processes, but to the comprehension of the phenomenon of development as such, the Act or Step of development, in his terminology.

It is an indication of what and whose great deeds B.D. Elkonin achieved. After the demise of his second teacher — V.V. Davydov — Boris Elkonin was unanimously elected to the International Association for Developmental Learning founded by Vasily Vasilievich. The Laboratory of Psychology of the Primary Schoolchildren of the Psychological Institute of the Russian Academy of Sciences, headed by B.D. Elkonin, was formerly called the Laboratory of Developmental Psychology. It was under this name that B.D. Elkonin received his Laboratory of the Psychology of the Primary Schoolchildren from V.V. Davydov. It was once "handed down" from its founder, D.B. Elkonin, to V.V. Davydov... Such a continuity. After V.P. Zinchenko, the editor-in-chief of the journal "Cultural and Historical Psychology", passed away, he headed the journal, the level of which was set by Vladimir Petrovich, an old friend of the Elkonin family, who closely followed Boris Elkonin's research, highly appreciated what he found and sincerely loved its author.

Boris Elkonin brought to scientific life the teaching spirit of friendship and love. ...Truth or friend — there is no such dilemma: we make our way to the truth with friends, driven by their inspiration and love for the truth itself, which has not yet been born. Boris Daniilovich, like Daniil Borisovich, was a wonderful inspiration, in love with what he was searching for.

Condolences to all who were close to Boris Daniilovich Elkonin and loved him.

Our memory of Boris Daniilovich is thinking about what was significant for him and opened up an untravelled zone of distant development of cultural-historical psychology, which his followers will have to pass through together with his ideas.

Editorial board of the journal "Cultural-Historical Psychology"

Colleagues, friends, students about B.D. Elkonin

On the authenticity of the individual and the ultimate meanings of science, education, life

From the article "Genuine Boris Elkonin"
(Psychological Gazette, 7 December 2023)

Boris Elkonin always spoke the language of meaning, as Daniil Elkonin also spoke, as Halperin often spoke. And Boris Elkonin, as well as other "children" in the genetic and methodological sense of Vygotsky's school, "nest". They are semanticists. They had and have a unique philosophical and methodological culture. Just as Vygotsky loved Spinoza, so Boris Elkonin suffered and loved Heidegger, no matter how hard I personally feel about Heidegger on many moral grounds.

Boris Elkonin is a true psychologist because he never, at any time, just like V.V. Davydov, just like V.P. Zinchenko, in any of the most difficult situations was never threatened to become "volunteers of debasing" (writer Leskov's term).

Boris Elkonin was genuine, because for him, life itself and the profession of psychologist was his destiny. And he did not think of any other destiny for himself. He was inimitable in his honesty, conscientiousness of falling in love with psychology and in his unique ability to ask questions, coming from Leontiev's whole "nest". It is no coincidence that one of his last articles was entitled "Questioning the Psyche".

Boris Elkonin was full of questioning ideas. And when I read the correspondence of recent years with Boris Elkonin, I am amazed at his immense intellectual power and his philosophical acumen.

Lev Vygotsky said that there are two types of methodologies: shell methodology and skeletal methodology. A shell methodology is like a house on a snail. You can climb out of it and move on. It performs mainly a protective function. And skeletal methodology is our intellectual skeleton, it is the value and intellectual core that holds the body of Vygotsky's school ideology together. Each of the Vygotsky school is a unique exponent of skeletal methodology. And its exponent is such a Master, in the Bulgakovian sense of the word, as my friend, classmate, classmate... (We studied in the same group with Borya Elkonin, Lena Vygotskaya (later Kravtsova), Vadim Petrovsky, Vladimir Sobkin and others). It was a group of individuals... I could list a number of others from our group of wonderful researchers. But Borya in our group was always a boundlessly open-minded mischief-maker and intellectual bully.

Boris Elkonin has always been and remains a teenager. He lived cheerfully, he could prank, he pranked from the first to the fifth year... Each time he loved life and those with whom he came into contact. Love for life, for intellect, for meaning, for the authenticity of scientific existence is one of the brightest characteristics of such a meaning-maker, which Boris Elkonin was, is and will remain for me.

It is very difficult to be the son of this or that great scientist. It was very difficult for Alexei Alexeevich Leontiev to be the son of Alexei Nikolayevich Leontiev, and even more so for Dmitry Leontiev to be the grandson of Alexei Nikolayevich and the son of Alexei Alexeevich. It was not easy for Vladimir Zinchenko to be the son of Pyotr Ivanovich Zinchenko and literally the son of the whole family, who was loved and admired by Zaporozhets, Leontiev and Galperin.

Boris Elkonin was beloved by our teachers. Boris Elkonin is not just an extension, he is literally a completely non-scientific copy of Daniil Elkonin, because he powerfully said his own word in psychology!

When Vasily Davydov (whom my friends called Vaska Partisan, just as they called Volodya Zinchenko Lohmatiy (Shaggy)) passed away, it was Boris Elkonin who picked up the baton of Davydov's and Elkonin's theory of developmental learning. And he did the following: he turned it into practice. He made Isak Frumin, Viktor Bolotov, Igor Remorenko and many others come to education through psychology...

Boris Elkonin wrote a brilliant article together with Isak Frumin that human maturation through additional education permeates all ages of life. This was back in the 1990s.

And without Boris Elkonin, it is literally impossible to imagine developmental pedagogy, which my friends from Krasnoyarsk took as a flag: Viktor Bolotov, Isak Frumin, and Pavel Sergomanov. All of them were born in dialogue not only with Davydov, but also with Boris Elkonin.

A.G. Asmolov
academician of Russian Academy of Education
Head of the Department of Personality Psychology
Faculty of Psychology, MSU named after M.V. Lomonoso

v

B.D. Elkonin and I.M. Remorenko. Photo by M.V. Klarin

When Boris Daniilovich was invited to various conferences and seminars, one always expected from him either to make a set, framework, basic judgement, or to generalize and participate in the construction of conclusions.

Why is that so?

Because he was one of the few who could talk about the most important things, discuss the ultimate meanings of education.

I.M. Remorenko
Corresponding Member of the Russian Academy of Education
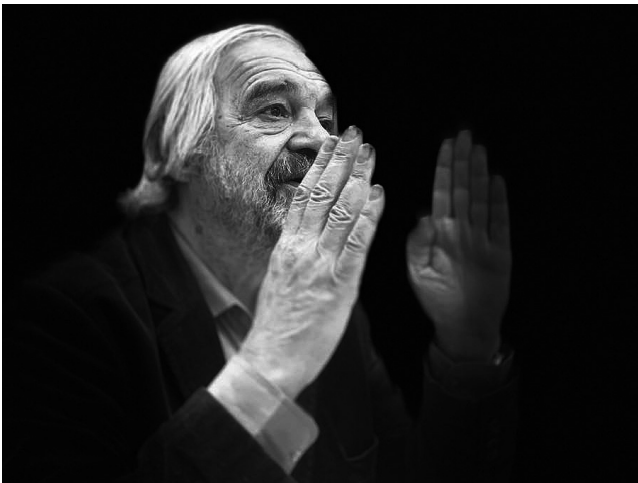*Rector of Moscow State Pedagogical University*

Photo by M.V. Klarin

From the article
"Celebrating the 70th Birthday of B.D. Elkonin.
The Mediator Between 'Non-classical' Psychologies"
(Cultural-Historical Psychology. 2020.
Vol. 16, no. 1)

...Cultural-historical psychology, in B.D. Elkonin's version, is the knowledge of how the ideal and real forms (according to Vygotsky) meet in human development, a meeting that is far from "idyllic" in itself, but is intensely contradictory, requiring a person to overcome himself in creative action. Development is not so much the child's attempt to "take a sample of culture" as to find himself in this "sample". To "recognize", to build oneself in culture as a subject of development. <...>

According to both D.B. Elkonin and B.D. Elkonin, no system of ideal cultural samples will ever replace the human image — the image of activity, which the adult reveals to the child from the moment of birth. "Appears" for B.D. Elkonin is a key word: the adult for the child is, first of all, the "manifestor" of the image of activity. And it is in the process of "manifestation" of the image of activity that he does not immediately, but gradually becomes the bearer of its model. At first we observe the primordial fusion of the image and the sample, but very soon the sample is separated and begins to live some "own" life. Mum no longer just gently strokes the baby's hands, into which human things accidentally fall from her hands, but teaches him to grasp, hold, shake, roll — in a human way, in accordance with the "established norm"...

This is the way it should be. But perhaps even later, in the symphonic sound we will "recognize" distant echoes of the mother's song: in the working movements of a master — the confidence of daddy's hands, in outstanding books — the continuation of conversations with wise teachers and talented friends. So that it all becomes "ours" — like mum's love, dad's reliability, like apprenticeship and friendship. Cultural meanings come into a child's life through semantic "gates" — not at all contrary to L.S. Vygotsky. As well as samples — as part of the image of activity. An image, which can only be revealed by a living, meaningful intermediary. Not just as a "significant other" (according to Harry Sullivan), but as a mirror of the child's own abilities, as D.B. Elkonin wrote.

V.V. Rubtsov
Academician of Russian Academy of Education
President of the Moscow State University of Psychology and Education
A.A. Margolis
Rector of Moscow State University of Psychology and Education
V.T. Kudryavtsev
Professor of Moscow State University of Psychology and Education and Moscow State Pedagogical University
A.A. Shvedovskaya
Head of the Department of Information and Publishing Projects, Associate Professor at MSUPE

Boris Elkonin.
Memory through the Blue Smoke

Smoking a pipe, as you know, is not a naughty thing. And if it is, it's a special kind of naughty. A cigarette is frivolous, a cigar is prim. A pipe is not. I've been smoking a pipe for a long time. For many people, it's either kitschy or a slur. Anyway, it's a purely personal matter. And who cares what kind of fun that satisfies me. Personally for me it is obvious that at some moments without a pipe the world looks different: preoccupied, dull and dreary. Yes, what's the world, I myself look duller and clumsier, dull and haggard. But that's a small thing. I can ignore them.

And so are people. Some pass by unnoticed, as if they never existed. Others seem significant. But it's not accurate. Accuracy takes time and effort. And then there are others.

I mean them.

Prominent and remarkable. Without a shadow of self-presentation. They are enough. And not just for themselves. They are seen, they are different. Something mesmerising. You expect something special. And still you squint. A kind of equivalence. If there's something to it.

A conversation begins. Saturated with meanings and shimmering halftones of meaning. The anticipation of an upheaval of understanding. Then rapture and expectation again. It's not that you have nothing to say. It's simply not necessary. Relax, immerse yourself in the inevitable intellectual feast. You don't need anything. It's just this. That's all you need. But how difficult it is to be transported into this boundless ocean of doubts and deep meanings that are in front of you and many thousands of years away.

You're being torn apart: come back here, stay there. Be there and here, be everywhere. Be everywhere. Please try. Please don't upset the Universe, you're a Human Being. So you can.

I realize you can't do everything. I realize you can't do much. But still.

Tell me you can do it. Tell me why. Tell me why you can do it. What if I can't? What happens if you don't? Will everything stop? Is it all for nothing? No. Maybe next time. Next time, there are footprints. Maybe ours. So let's make a mark.

You're a pipe smoker. Do you know how to screw the mouthpiece in? Clockwise. That's what I know. And I advise you to do it that way. Never anti-clockwise. It's possible, of course, but don't ever do that. Why? I think it would violate a very important law of the Universe. Or maybe a human law. Anyway, some important law. You don't have to think about it. You just do it and that's it.

A charming smile. A supportive squint. Not everything. Just the stuff that reeks of kindness and soul effort.

There is no practical psychology. There are practical psychologists.

PS. Every day, while filling my pipe, I remember Boris Elkonin's very words. I never screw the mouthpiece in anti-clockwise. But I could. After all, there's nothing easier to do the other way round. And now I think, how did he manage to stay by leaving? Was it through the simple act of making meaning? Yes. But not only that. Rather, through the meaning he embodied? But that's just a hypothesis, too. It's all about asking the right question.

Photo from E.A. Bugrimenko's archive

T. Yu. Bazarov
Professor Emeritus of Moscow University
Professor of the Department of Social Psychology, MSU named after M.V. Lomonosov

Answers to the "Questionnaire" of the Editorial Board of the Journal "Cultural-Historical Psychology"

While preparing this issue, we addressed the representatives of the scientific and educational community with a proposal for 2 questions:

1) What do you think B. D. Elkonin entered science and education with?

2) In which role has Boris Daniilovich entered your life?

We also asked colleagues to share Boris Daniilovich's unique archive photos, including those shared with him.

We thank everyone who responded to the editorial board's proposal and request!

At the Conference on Anthropopractices of Development (2015) in Izhevsk.
Standing (left to right): S.F. Sirotkin, T.M. Kovaleva,
S.A. Smirnov. B.D. Elkonin is sitting

1. Boris Daniilovich entered science with his Thought. He set a new horizon for cultural-historical psychology. He expanded its vocabulary, enriched it with his Word. And although he said many times that the word "event" had also become a hackneyed word, we can still say that he was building an event psychology and pedagogy, the Psychology of Event, the Event of human accomplishment in man, in the little man. He considered himself first of all a child psychologist. But in fact he set the ultimate horizon for further searches, not only within the framework of cultural-historical psychology, but in general for the whole of humanistics. He was with his vocabulary unaccustomed to psychologists, since his constant interlocutors were M. Heidegger and M. Bakhtin, and, of course, his teachers P.Y. Halperin, A.V. Zaporozhets, and, of course, L.S. Vygotsky himself, and his father Daniil Borisovich.

Boris Daniilovich accepted the baton of cultural-historical psychology development and established his indispensable and irreplaceable place in it, setting himself a new milestone in it, strengthening it by setting the ontological and anthropological horizons of CHP development.

2. He came into my life since 1995. He became a thick, juicy and deep Voice of the Author, a constant interlocutor and companion, an older comrade and friend, who did not suffer from metropolitan snobbery. Each of our meetings, of which there were many in different cities of the country, became another moment, an episode of an endless Conversation, which I wanted to prolong for a long, long time, indefinitely.

This Conversation has not been interrupted even now. And Boris Daniilovich remains my constant interlocutor, to whom you can always turn again, ask a question, and listen, listen, talk again, listen again...

Deepest gratitude.

Sergey Alevtinovich Smirnov
Doctor in Philosophy, Chief Scientific Associate,
Institute of Philosophy and Law, Siberian Branch of the Russian Academy of Sciences.
Editor-in-Chief of the journal "Chelovek.RU"
Novosibirsk

With T.N. Kovaleva in Izhevsk (2015)

1. For education, B.D. Elkonin made a fundamentally new and very important contribution (in fact, the second after Ushinsky), developing a whole direction of anthropopraxis as the practice of supporting human development. And within the framework of this approach it became possible to rethink the pedagogy of development, the very act of development, and productive action...

For several years, annual conferences on anthropopraxis were held in Izhevsk on the initiative of B.D. Elkonin (he was the Chairman of the Programme Committee), bringing together researchers from various fields of psychology, pedagogy, culturology, and philosophy who were developing and implementing the anthropopraxis approach.

2. For our scientific and practical tutor group and the whole staff of the school "Eureka-Development" in Tomsk, B.D. was a great friend and the main expert, with whom we jointly cre-

ated a polysystemic model of the school and discussed all the stages of its formation. Later, developing the tutor problematics within the framework of the Interregional Tutor Association, we constantly held annual tutor conferences and joint scientific seminars, where we discussed the specifics of the tutor's position, its resourcefulness and interaction with the positions of teachers and psychologists; the technology of the tutor's work, etc. Without B.D. Elkonin's participation in all this work, the conceptual advancement of our group would have been impossible.

Tatiana Mikhailovna Kovaleva
Doctor in Pedagogy,
Professor,
Head of the Laboratory of Individualization of Continuing Education and Tutoring,
Moscow State Pedagogical University

1. A new philosophical justification (for psychology!) of the idea of mediation and productive free action (and this is the condition (mediation) and realization (productive action) of freedom. Unlike trivial discourses like free will and freedom of choice, this reflection gives psychology the opportunity to investigate the process of freedom's genesis.

2. An older comrade, wise and ironic. Perfect form.

Nikolay Nikolaevich Veresov
PhD in Psychology, Doctor in Philosophy, PhD,
Associate Professor, Faculty of Education,
Monash University (Melbourne, Australia),
Member of the Editorial Board
of the Journal "Cultural-Historical Psychology"

Cultural-historical psychologists Boris Elkonin, Nikolai Veresov, Pentti Hakkarainen (d. 2021). Kajani, Finland, 2001

1. It is not in my status to give estimates about the contribution of dear Boris Daniilovich Elkonin to science and education, but still I would like to say that he was the Alchemist of psychology. Why, you may ask? Everything is very simple — Daniil Borisovich — his Work, Life, everything was directed on cognition of "essence of phenomena", he as an ancient Alchemist (and we remember that Alchemy, in translation from Ancient Greek contains such concepts, χυμεία — "fluid" and χέω — "pour") spreading the "fluids" of his masculine charm and charisma to others, "poured" into science Ideas about the development of fundamentally new thinking abilities of students.

2. And for me personally, Boris Daniilovich will always remain the person who explained to me how to correctly set my own boundaries of support in this difficult World and confirmed in the understanding that Development always implies only good!

Dmitry Yuryevich Kovalev
Engineer — pedagogue, MA in Psychology,
graduate of the MSUPE MA programme
"Cultural-Historical Psychology and
Activity Approach in Education"

Dmitry Kovalev's photo shows the familiar "Alchemy" of scientific communication in the Laboratory of Psychology of the Primary Schoolchildren at the Psychological Institute on Mokhovaya Street. Renovated basement room where L.S. Vygotsky lived when he moved from Gomel to Moscow. Portraits on the wall: Daniil Borisovich Elkonin, Vasily Vasilyevich Davydov, Vladimir Petrovich Zinchenko. Under the frame with a calendar - L.S.Vygotsky's associates and Lyudmila Filippovna Obukhova
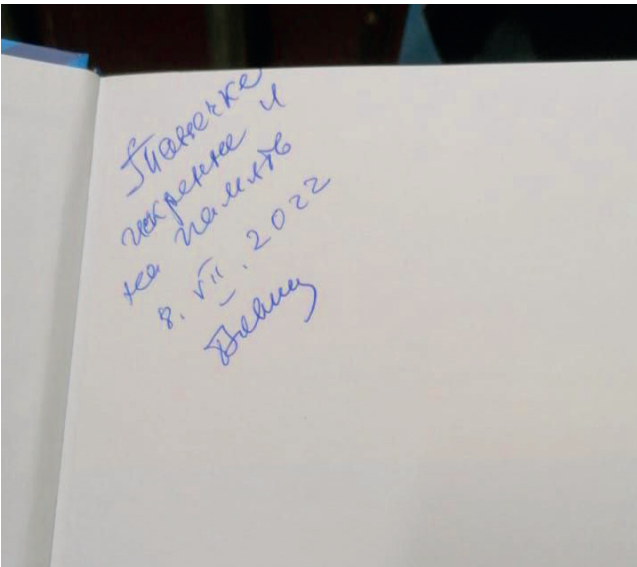
"Everyone but best friends come back..."
"The deeply human meaning of cultural-historical
psychology" in its splendid faces: Elena Smirnova
and Boris Elkonin. Photo by Maria Sokolova

1. From my point of view, B.D. Elkonin created a new cultural-historical language of activity theory, constructed new concepts of subjectivity, mediation, and probation. His theoretical language was born difficult and original, and was a product of his spiritualized thinking. His philosophical and anthropological foundations of developmental psychology continued the rebellious and deeply human meaning of cultural-historical psychology, forced a rethinking of the formalized concepts of activity theory, breathed new living meanings into them, and thus gave rise to new innovative educational practices.

2. I treasured Borya's consciousness aloud, a creative co-existence in which the event of experiencing new meanings and ideas together was born. For a while, in the early 1990s, as a simultaneous interpreter of his consciousness aloud, when I had to run ahead and speculate on emerging ideas (a requirement of simultaneous translation), I was lucky enough to experience his consciousness "glimmering" (Bunin). In each such speculation, B.D. had the responsibility to continue a cultural tradition and the creative courage to create new ideas and a new theoretical language. In my practice as a researcher, I try not to lose the voice of cultural tradition and the reprobation of trying the new.

Elina Lampert-Shepel
Associate Professor at Touro College,
New York State (USA)

1. Boris Daniilovich Elkonin introduced the principles of developmental education, but he focused not on primary school, but on adolescence, which is very close to me due to my professional activity. BD spoke about the importance of "one's" place (in this or that activity, in this or that collective; more broadly, in the Universe). In particular, adolescents need to find this place and feel significant, necessary, influential; to become "co-participants" in planning the learning process; to think critically, to evaluate their activities, to find and correct mistakes independently, etc.

2. B.D. was my lecturer at the MSUPE MA programme "Cultural-Historical Psychology and Activity Approach in Education". We adored his lectures, jokes, manner of speaking. (Reading the book he gave me, I can clearly hear his low voice). He often used the words "endure" and "question" and I loved it. He did not stop questioning himself, showing a keen and sincere interest in our research.

I am very grateful to Boris Daniilovich for his warm, parental support at my seminar before the defence of my MA thesis; for his interest in my work and for the time he spent with me. His participation and attitude made me feel relevant and significant. I will never forget his kind face, smile, delicate compliments, careful and subtle remarks (more like wishes) and very precise and necessary recommendations when discussing my work.

Thank you, Boris Daniilovich!

Tatyana Nikolayevna Voloshko
Editor-in-Chief of the electronic newspaper "News of Education",
MA in Psychology, graduate of the MSUPE MA programme
"Cultural-Historical Psychology and Activity Approach in Education",
co-researcher of the UNESCO Department "Cultural and Historical Psychology of Childhood", MSUPE

I met Boris Daniilovich by chance, although I had previously been trained as a teacher in the system of Developmental Education (back in college, in the distant 90s). And then I went to study at postgraduate school (the emptiness about difficult affective childhood, when there was nothing to answer to the remarks of bloggers-journalists, replicating foreign approaches... and they had already entered our walls and dictated the working conditions to us — qualified specialists).

The traditional "analysis should weigh, not count" did not work, more concentrated knowledge was needed, with a developed system of conceptual means. By that time I had a long period of work with such children (closer to 20 years old), I had seen a lot of things, but I did not know the FORM OF THE WORD. And then, one day, one of the students of the Master's programme "Cultural and Historical Psychology" — Alexey Gontarenko, said: "Come to our lecture, everyone is allowed there". I got curious. We went. And here — a quote from "Thinking and Speech" in the rhythm of "easy breathing": "IN THE BEGINNING WAS THE WORD"... It pierced me... Everything in my head was immediately re-structured: situations from practice, concrete examples of syncretism in the thinking of children with autism began to pop up, and everything spun.

Photo by E.N. Soldatenkova

And later there were lectures on "Cultural-Historical Psychology" at the Higher School of Economics, discourse seminars at the Psychological Institute, where topical reports with discussions were made. Everyone waited for Boris Daniilovich's final WORD and it was always BEAUTIFUL. CONSCIOUSNESS WITHOUT WORD was gradually gaining ground under its roots: bloggers began to receive sane answers to their remarks, and parents of children with autism (more than 78% of children with autism in preschool age do not speak) received appropriate recommendations for their work.

Another surprising thing was that once I needed a review of a course. It seemed like a trifling matter, but no one responded. But Boris Daniilovich wrote it, and he wrote it well: it seemed good, but the phrase "high probability of its success" made me think.

He was able to set a task, creating a mediating situation. I kept thinking, WHAT WAS WRONG? And then the publication of the article "Axis. Support. Field" and discussions in PI RAE. Something caught quickly, something slipped away, and the participants of the CLUB of the TWO B's (Boris Daniilovich and Boris Alexeyevich Arkhipov), supported by L.I. Elkoninova and E.A. Bugrimenko, looked at each other and smiled at the presentation of our reports.

Later, we also began to catch erroneous statements (most notably "Seminar is not a place for discussions"), double and triple messages: several action plans and navigation became easier, which was not the case with the seminarians who had just joined. At the same time articles were being written (rewritten), a dissertation (36 versions) was being written, and assistive technologies in work with children were being created. Boris Daniilovich always gave feedback, through any channel, even on holidays, and I was always happy: "Oh, I found the right WORD". The work of recreating the traditions of the experimental-genetic method, the conditions for organizing cumulative/mediated action was fascinating. Together with Boris Daniilovich came L.S. Vygotsky's eight, participants of the Zagorsky experiment (though with a different kind of ontological disability, but... overcoming as a key concept of the genesis of the HMF remained), artists and poets came. He especially liked to quote to us O. Mandelstam "I FORGOT THE WORD that I wanted to say..." and each reference gave birth to a sea of associations: Stygian shadow, reflected subjectivity in a child with ASD...

And later there were seminars: "Activity Approach in Education", conferences "Modern Didactics" and so on.

"And slowly grows as if a tent or a temple..."

He warned that the activity approach "is not a banner, but a subject of consideration and, if we are lucky, reconstruction". He made it clear why personal and meta-subject results are formed only on the basis of activity practice, not functional behavior analysis and ABA-therapy, which imagines itself to be evidence-based practice ("They shout like victory, about forging Gods out of copper... the statues stand for a short time and the lava of the first volcano melts their castings"). The crisis of science and practice became even more apparent thanks to him: methodological recommendations for working with children with autism are still written in the language of primitive functional analysis of behavior, the restructuring of the ways of implementing the unformed function is in no way reflected in the work of practitioners, and children remain at the level of mastering (have they mastered?) ALTERNATIVE communication (NOT SPEECH)

"We are near, yet also far away..."

It is difficult to say WHAT the man who accompanied you for a DAY gave you. In fact, he gave (not only to me, but also to others) a whole WORLD, an OPEN WORLD and a REAL authentic BEING and WORD.

It is also difficult to single out the most significant of his works, but for me, one of the last ones is particularly important: "Towards a Questioning of the Psyche: A Chain of Questions"[1] where he presented the psyche as "a triangle with state, image and movement at its vertices, and in the center (at the intersection of the bisectors) the CONCEIVED WORD":

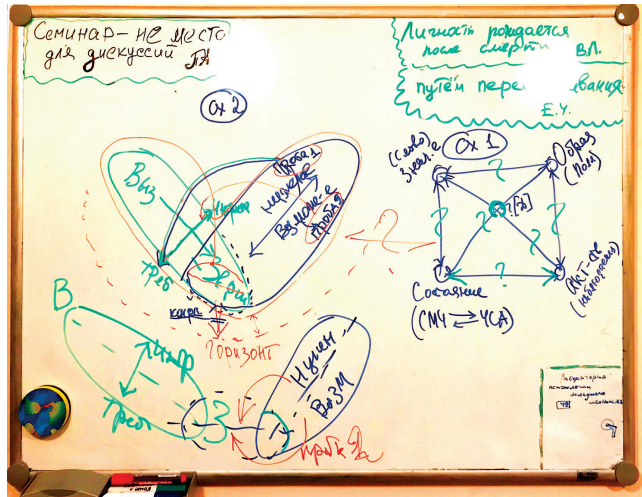"SAVE MY SPEECH FOREVER as the flavor of unhappiness and smoke"...

Elena Nikolayevna Soldatenkova
Pedagogical Psychologist of MSUPE Federal Resource Centre for Complex Support of Children with ASD,
PhD student of the Department of Age Psychology named after L.F. Obukhova
Faculty of Psychology of Education, MSUPE

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[1] https://psy.su/feed/11036/

With E.V. Chudinova

B.D.'s contribution to psychology is a new understanding of mental development, a new understanding of Action, and also a bright and lively energy of L.S.Vygotsky's school, stretched out, passed on from the older generations to the younger ones.

His contribution to education is the rethinking of what has been done in developmental learning in primary school and the breakthrough of developmental learning in basic and high school, the unique project "Teenage School" with the ongoing scientific and educational results generated by the project, and most importantly — thousands of people involved in the DE-VELOPMENT of education.

I have been blessed in my life to live near and work alongside a man of great soul.

Elena Vasilievna Chudinova
PhD in Psychology,
Leading Researcher of the Psychological Institute
of the Russian Academy of Education

With V.A. Lvovsky

"Great things are seen at a distance": it will be possible to speak confidently about B.D.'s contribution to science and culture in decades to come. But in human terms, his main contribution is to the people he communicated with, taught and learnt from. And he always taught one thing — trial-and-productive action. To feel the axis, to have supports and to see the field of possibilities. For me personally, B.D. is not just a senior friend and teacher, he is the air of the DE (Developmental Education. — *Ed.*) school, and I could never have spent many years inventing a developmental physics course.

Vladimir Alexandrovich Lvovsky,
PhD in Psychology, Associate Professor,
Head of the Laboratory of Designing
Activity-Based Educational Content
Institute of System Projects,
Moscow State Pedagogical University

Photo by M.V. Klarin

I remember in one of the experiments where you had to compare the length of two rubber bands, the child answered as best he could and Boris patted him on the head.
It was a formative experiment which shaped human interest, warmth, love.
Conventional experimenters don't pat children on the head.

Mikhail Vladimirovich Klarin
Corresponding Member of the Russian Academy of Education,
Doctor in Pedagogy,
Chief Researcher of the Research Institute of Urbanism
and Global Education,
Moscow State Pedagogical University

I met Boris Daniilovich on the 1st of September 1978, when I came to work at school 91 and after lessons I visited their laboratory...

Many vivid memories are associated with this pure-hearted and great man.

A few years ago, Boris Daniilovich spent a year teaching our pre-school children. It was a great joy and happiness to watch it. Our six-year-olds listened to Big Daddy with their mouths open, twirled around him and even tried to hug him (the bravest ones).

Another vivid memory is the Hawaii conference and visiting local lessons together. Then I had to translate a lesson analysis made by Boris Daniilovich. That was hilarious.

In general, I participated in such a marvellous unforgettable story only thanks to Boris Daniilovich.

It was so soulful and warm...

Natalia Lazarevna Tabachnikova
Maths teacher at school no. 91 (Moscow)

"It was so soulful and warm..."
B.D. ("Big Daddy") with Galina Anatolievna Tsukerman
and Natalia Lazarevna Tabachnikova