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НАУЧНАЯ ЖИЗНЬ

Toward the Results of the International Congress "L.S. Vygotsky and A.R. Luria: Cultural and Historical Psychology and Issues of Digitalization in Social Practices"

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The international scientific community turned to cultural-historical psychology to find solutions to the issues caused by the introduction of new tools into social practice — digital tools and artificial intelligence, embodied in the international congress: "L.S. Vygotsky and A.R. Luria: cultural-historical psychology and issues of digitalization in social practices". The cross-cutting theme was the definition of the place of the digital medium in human life. Summarizing the results in a brief form, we identified five areas: defining the essence of the digital medium, its limitations and possibilities; highlighting the limits of its use; irrationality and rationality in relation to the "machine"; the role of the adult in learning and communication with the child when using digital media; the requirements for digital media in the boundaries of safety. In each area, the main provisions of cultural-historical psychology are examined in depth through the prism of their applicability to contemporary reality. The notions of "social situation of development," tool and sign, interiorization and zone of the nearest development, age and its features, mediation and others showed not only their theoretical viability, but also the practical necessity of their application.

Keywords: cultural-historical psychology, digital tools, tool and sign, mediation, development.

К итогам Международного конгресса «Л.С. Выготский и А.Р. Лурия: культурно-историческая психология и вопросы цифровизации в социальных практиках»

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Обращение международного научного сообщества к культурно-исторической психологии для поиска решения вопросов, вызванных внедрением в социальную практику новых средств — цифровых средств и искусственного интеллекта, воплотилось в международном конгрессе: «Л.С. Выготский и А.Р. Лурия: культурно-историческая психология и вопросы цифровизации в социальных практиках». Сквозным являлось определение места цифрового средства в жизнедеятельности человека. Обобщая в краткой форме результаты, мы выделили пять направлений: определение сущности

цифрового средства, его ограничений и возможностей; выделение границ его применения; иррациональность и рациональность по отношению к «машине»; роль взрослого в обучении и общении с ребенком при применении цифровых средств; требования к цифровым средствам в границах обеспечения безопасности. В каждом из направлений глубоко рассмотрены основные положения культурно-исторической психологии сквозь призму применимости их в современной реальности. Понятия «социальная ситуация развития», «орудие и знак», «интериоризация и зона ближайшего развития», «возраст и его особенности», «опосредование» и др. показали свою не только теоретическую жизнеспособность, но и практическую необходимость их применения.

Ключевые слова: культурно-историческая психология, цифровые средства, орудие и знак, опосредование, развитие.

The picture of the world of "fantasy societies" in the context of historical time has a place for its realization. Our mental images, underpinned by convictions and goal-directed actions, are the point from which the "meeting of the motive with the object" takes its distance.

The desire of human society to raise as its future man of culture, which means honoring traditions and developing through his work the well-being for himself and subsequent generations, without disrupting social existence, is the filter through which what is created and created is deposited in culture. Science fiction of "a century ago" with its first words about the robot is already realistic today. The questions that excited Karel apek, Stanislav Lem, Isaac Asimov and others are being addressed today by digital means and artificial intelligence, by introducing the cultivation of a cultured person into our life activities, economic organization and social practices.

At the international congress on cultural-historical psychology "L.S. Vygotsky and R.A. Luria: Cultural-Historical Psychology and Issues of Digitalization in Social Practices" (November 15—17, 2022.) was devoted a lot of time to discussing in sections, round tables, master classes, meetings, sessions and plenary session the issues of what we have already encountered as contradiction, boundary, permissible possibility, destructive consequence, optimal condition, etc., more precisely questions of what we have created, for what, and what are the consequences?

It is an amazing situation, repeated many times in history, when by collective labor something is created, and then it is understood and pondered that there is this something that begins to define human life. The creator himself falls under the power of what he has created. The effect is a well-known one in the field of art. Isn't the art of perfecting tools? Digital tools and artificial intelligence are gaining a high speed of their change, increasingly embracing and taking over the life of man, who has no time to comprehend and find an ad-equate place for these tools in his life. The machine is "running" ahead of human awareness of it. That is why the international congress, aimed at figuring out and determining the place of the new tools in the fields of practice that set the future of humanity, highlighted the problems and sought their solution on the basis of cultural-historical psychology, that psychology in which the cultural man — the individual is the peak, and, in a sense, the final point in the social practice of interaction between two and more people in the process of learning, communication and activity.

The list of issues under discussion is far from simple, and all of them are about the role of digital transformation in the life of a person, a child in particular. The very semantic content of the phrase "digital transformation" shows that we recognize the tremendous change of a person, his life, caused by the use of digital tools. The issues of psychophysiological, neuropsychological, physical, psychosomatic, personal, social, organizational changes in human life were considered during the Congress.

The Congress worked on determining the boundaries in which the digital medium works most effectively to achieve the necessary results in the practice of education, psychosocial assistance, leisure, developmental additional education and support for the development of people with disabilities. The question of boundaries is the most important, its solution was determined by the observance of the laws of development, highlighted by L.S. Vygotsky within the framework of cultural-historical psychology. Summarizing the results of the joint work of scientists and practitioners, it is possible to formulate the following.

1. According to the laws of development singled out by L.S. Vygotsky, a digital tool, like any other tool in the hands of a child and an adult, should provide for the implementation of interiorization and socialization.

By mastering a tool and talking it through, the child goes through a complex chain of forming connections between the adult, child, tool, appropriation, purpose, social forms of thinking and behavior through a process

of symbolization when it is no longer necessary to dance a ritual dance of a successful hunt around a large animal, but to draw this animal, comes to a sign form of thinking, masters a sign that carries the properties of the object it has replaced for the child.

The natural natural process of development uncovered by L.S. Vygotsky presents itself in a different way in the operation of the digital medium, thus affecting socialization, behavior, thinking and speech in general. In the discussions and reports of the congress it is possible to piece together the large-scale restructuring taking place in the relationship "adult-child", "child-play", "child-other child".

The main feature of the digital medium is high informative, responsive, symbolic and, importantly, bright and dynamic, affecting attractiveness. Weapons — a car and a doll, traditional two-century toys — have moved into the category of drawing, controlled by a button. How then can there be a process of sign formation that assumes the basis of cultural thinking and consciousness, that penetrates the essence of art, that objectifies universal values.

The total capture of the processes of mental function development by digitalization is no more than a decade old. The cultural-historical psychology of an intelligent manager, teacher, educator, etc., can lead to the right solutions for preserving the natural state of the human psyche. After all, it is not known, in its entirety, what will happen to man when symbolic forms replace the other person, communication, experience, etc. In this direction of humanity's development, drawn by science fiction writers to a human-robot, a cyber-human, in order to preserve humanity, apparently, there is no need to move forward. In order to do so, it is necessary to define an adequate place for digital tools.

2. The adequate place of the digital medium in the life of the child and adult has its limits.

At the congress it was said about the boundaries of age, time (for example, no more than 2 hours a day of work and play with a gadget for an elementary school child), intellectual, health, etc. Non-observance of optimal limits, set experimentally, can lead to various disruptions, for example, in socialization (development of addiction), in health (stress), and even to financial losses, along with the gains in the case of games and other activities provided by digital platforms.

Defining the place of digital tools in society has led to the emergence of new disciplines in teaching, such as Digital Financial Literacy, Robotics; Gamification, Artificial Intelligence Development Club activities, etc. Such forms of work as design, modeling, implemented in training, most qualitatively develop with the application of digital tools that help to optimize organizational communication.

Opportunities for the use of digital tools in human life are many and this dictates the need to develop safe-

ty rules. This direction is likely to develop in the near future.

3. The use of a digital tool is determined by the criteria of optimization, age appropriateness and enhancement of work (learning). Consequently, not only those who develop these tools, but also those who apply them, cannot be replaced by this tool.

The fears of a "machine future" drawn by literary images have no realistic and reasonable logical basis, even in perspective. The aspirations of the developers of AI and digital tools are ambitious, and the cultural-historical psychology of a hundred years can reveal the difference between aspiration and possibility, conditioned by nature itself, before which man, like before himself, does not have full power. Metaphorically one might say, "the typewriter and the doll will not come off the production line" if the rationality of "not chopping off the bough on which you are sitting" will stop the hunger, quenched not by works of art but by the informational saturation, for which "souls have no time".

4. In the process of regulating the use of the digital medium, the role of the adult is great.

It is from childhood in the generation that begins its journey with the "digital" that the adult who broadcasts the culture teaches the place, the boundaries and the adequate ways of application of this medium in the child's organization of his or her own life. The age limits are lowered for the child's self-organization, as well as for the development of reflexion, which follows the development of logical thinking; without waiting for adolescence, it should become the child's attitude towards the number as a means, not as a natural tool or a symbolic sign, but as something new, which carries this tool — a natural symbolic tool capable of positively influencing the development of abstract thinking.

Consequently, adults need to direct their educational and teaching efforts toward the development of reflexion in children, and, consequently, toward the development of logical thinking, not to the detriment of the development of visual imagery. A unique, unexplored developmental situation is taking shape for which cultural-historical psychology with its concept of development is the fundamental basis.

Age boundaries of development change in accordance with changes in the social and technical state of society, but the essence of developmental processes remains the same, as do the laws of the child's mental development. The adult organizes a "social situation of development" for the child, in which cultural forms of behavior are formed and cultural psychological functions develop.

Due to the uniqueness of the current situation, new ways of learning are to be developed in which the abilities of problematization and self-determination, choice and acceptance of responsibility can be formed at earlier ages to master the ability to control the digital medium. "Digital literacy" is not enough to meet these chal-

lenges. Rather, a set of training disciplines synthesizing knowledge of psychology, psychophysiology, medicine, pedagogy, didactics, philosophy, and cultural studies is needed to develop training programs for future parents regardless of their professional specialization. Universal literacy along with digital literacy is urgent in the care of our not-too-distant future.

5. The studies presented at the congress showed the need to make demands not only of culture, the child, the adult, the "social situation of development", etc., but also of the digital medium itself, developed by man himself for himself and his own kind.

Sometimes the category of the "Other" gets lost in the technical refinements and piles of "soldered circuits". It has been noted that the digital manufacturing giants have turned their attention to training, education and upbringing to address the discovered gap between the technical medium and the human being. Creating digital educational platforms for children and adults, their co-creation, is a step forward to a future that guarantees the preservation of the human psyche.

Putting filters on the information provided by the global network of the Internet is a condition for the safety of the mental, value, moral and moral development of the child and adult. The inclusion of controlling functions over the Internet is to protect the interests of the consumer, including the child, from unauthorized influence. The above examples are far from exhausting all the measures taken by the authorities to regulate the relationship between man and the digital medium. Such regulation is extremely necessary due to the peculiarities of this medium and the possible serious destructive effects that society has not yet experienced from other available means in its arsenal of use.

The advent of the computer has accelerated life and activity by speeding up the movement of information, which mental processes must, but should not, keep up with. Information is the engine of productive forces, and the individual must be able to cope with it as well as with the accelerated rhythm of life.

The debate unanimously affirmed the need to strengthen natural mechanisms of self-regulation through social and governmental measures in order to maintain developmental homeostasis while incorporating new (digital) means into the social practice of life.

These "red thread" issues have been acquiring foreseeable forms of proposed solutions and are included in the published proceedings of the International Congress "L.S. Vygotsky and A.R. Luria: Cultural and Historical Psychology and Issues of Digitalization in Social Practices. International Congress, November 15-17, 2022. T. E. Sizikova, G. S. Chesnakova, Ministry of Education of the Russian Federation. Novosibirsk: National State Pedagogical University, 2022. 443c.", in the special issue of the journal "Cultural-Historical Psychology" (2023. № 2) and in the special issue of the journal "Culture and Education" (Australia).

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