Conference Paper

A.R. Luria: Ideas and Prospects of Their Development in Pedagogical Psychology of the Twenty-first Century

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Abstract

A.R. Luria’s ideas are well-known and recognized both in Russia and abroad. Scientists from different countries are actively working in neuropsychology, a part of the psychological science developed by A.R. Luria. The author has shown the relevance and importance of the neuropsychological approach to the pedagogical psychology problems and the availability to choose an adequate educational and nurturing strategy from these standpoints. The study seeks to rethink and assess the importance of A.R. Luria’s main ideas from the modern pedagogical psychology’s standpoints. The characteristic of the main theoretical provisions has been set forth based on the analysis of A.R. Luria’s academic papers and the main directions and prospects for the development of A.R. Luria’s ideas in the modern psychological pedagogical science have been determined. A.R. Luria’s academic papers most sought by the modern researchers have been noted. The study is based on the materials of the thesis researches on the pedagogical psychology problems conducted in the beginning of the twenty-first century, A.R. Luria’s papers, the publications of other researchers who have studied his contribution to the psychological science. The study results show that A.R. Luria has significantly contributed to the development of the pedagogical psychology problems. A.R. Luria’s ideas on the interaction of the humanitarian and science knowledge in the human comprehensive study, the cultural and historical understanding of the psychical functions development, and the language evolution in the music language study for the musical education development seem most promising for the pedagogical psychology development. Note has been taken of the importance of A.R. Luria’s ideas for the elaboration of the relevant problems of the training and development of a person at any age; the study of individual and typical features in mastering a foreign language; the study of the semantics of speech and means of coding meanings in the context of professional training of psychologists and teachers, specialists in the field of artistic creativity. The analysis of A.R. Luria’s main ideas facilitates the deeper understanding of the modern problems of the pedagogical psychology theory and practice.

Keywords: pedagogical psychology, A.R. Luria, musical education, professional training of psychologists, education in senior age, psychological service

1. Introduction

A generalized analysis of the scientific heritage of A.R. Luria showed the relevance and modernity of the theoretical propositions he developed for pedagogical psychology. In the research papers of A.R. Luria, many of the most important problems of psychopedagogical science were posed and promising ways of their solution were outlined. Much of that, which has been done in that period of time, preserves not only historical significance, but it is also actual now ([24–27], etc.). The analysis of the works of native and foreign scientists makes it possible to understand the specifics of the development of the pedagogical psychology and to elucidate the influence of A.R. Luria’s ideas on the development of psychological and pedagogical science and practice.

Analysis of the influence of the main ideas of A.R. Luria on various areas of Italian psychology and neurology allowed Papagno & Glozman (2012) to identify common theoretical approaches to psychological research. Common positions consist of a cultural and historical understanding of the development of mental functions, the recognition of the limitations of physiological psychology and the important role of personal and social experience in the formation of higher mental functions. Researchers (Papagno & Glozman) noted the main features of the scientific heritage of A.R. Luria. Among them, the most valuable from the standpoint of pedagogical psychology, in our opinion, are the philosophical basis, the theoretical framework, the openness to new ideas and approaches.

Puente (2012) reflects on the influence of ideas A.R. Luria on clinical neuropsychology in North America. He notes that for a long time western clinical neuropsychology largely ignored the socio-historical perspectives in understanding the functioning of the human brain and its disorders. However, under the influence of the spread ideas of A.R. Luria clinical neuropsychology in the western hemisphere has largely recognized the influence of culture on neuropsychological functions.

The significance of the cultural–historical theory, one of the founders of which was A.R. Luria, for psychological science in Brazil was revealed in the research of Prestes et al. (2012). They identified the problem of the scarcity of research papers of A.R. Luria, etc., translated directly from the Russian language. Translations of Luria, Vygotsky and Leontiev’s papers, which are coming to Brazil, the authors of this research emphasize, often contain a rather superficial picture of the thoughts of Russian scientists, a distortion of the basic concepts, since they are translations into Portuguese, made from works that were first translated into English and Spanish. Currently, active work
is underway to translate the papers of Russian scientists directly from the Russian language, to deepen and introduce the ideas of cultural and historical theory in Brazil.

The ideas of A.R. Luria are widely known in Poland, states Kaczmarek (2012). Especially Kaczmarek identifies four major neuropsychological centers that are engaged in research and training. The researcher notes that in addition to neuropsychological studies, research is carried out in the field of neurolinguistics and pediatric neuropsychology.

Important from the standpoint of pedagogical psychology, in our opinion, is the work of Paramonova (2009), aimed at researching of the development of scientific knowledge about the child in the native psychology of the late nineteenth–early twentieth centuries. The ideas of A.R. Luria are reflected in the study of Paramonova, set forth in the works ‘Psychoanalysis as a system of monistic psychology’ (1925), ‘Stages of the traversed path. Scientific autobiography’ (1985).

In the study of the peculiarities of the formation of Russian pedagogical psychology in the semiotic space of humanitarian knowledge of Solovyova (2009) on the basis of semiotic, transformational approaches shows the dynamics of the formation of pedagogical psychology, taking into account the diverse changes in its types, forms and essential characteristics, the idea of the interaction of humanitarian and natural science knowledge in the holistic study of man, presented in the work of A.R. Luria ‘On the historical development of cognitive processes’ (1974).

Research of the scientific heritage of A.R. Luria and the research papers of domestic and foreign scientists, continuing the development of his ideas, makes it possible to fully and objectively assess the impact of scientific works of A.R. Luria on the formation and development of pedagogical psychology ([2, 3, 8, 10, 12, 14, 21, 35], etc.). In this regard, while developing the concept of research, we sought to show continuity in the development of pedagogical psychology, to find arguments that confirm that the main works of the scientific heritage of A.R. Luria are relevant for solving the problems of pedagogical psychology of the 21st century, and give modern pedagogical psychology a new theoretical potential.

The relevance of our study is connected, on the one hand, with the need for rethinking the main ideas of A.R. Luria from the standpoint of modern psycho-pedagogical science. On the other hand, it is related to the importance of implementing these ideas in psychological and pedagogical practice. Neuropsychological approach to problems in any sphere and at any stage of education will contribute to the selection of an adequate strategy of education and upbringing.
2. Methodology

The purpose of our study is to analyze the main theoretical positions of A.R. Luria on the problems of pedagogical psychology, assessment of the significance of the heritage of A.R. Luria for the development of modern pedagogical psychology.

Objectives of the study:

1. To characterize the initial theoretical guidelines and determine the contribution of A.P. Luria to the development of problems of pedagogical psychology.

2. To determine the main directions and prospects for the development of A.R. Luria’s ideas in modern psychological and pedagogical science on the basis of the analysis of research papers written by A.R. Luria and the studies of recent years in the framework of pedagogical psychology.

3. To draw attention to the research papers of A.R. Luria, most in demand by modern researchers in the context of the problems of pedagogical psychology.

The methodological basis of the research is the general scientific principles of objectivity, scientific character and historicism, which make it possible to present the current state of psychological and pedagogical science from the standpoint of refraction and realization of the main ideas presented in the scientific papers of A.R. Luria.

To solve the set tasks, logical, analytical and comparative methods of studying the scientific heritage of A.R. Luria, the study of modern researches, reflecting and developing the ideas of A.R. Luria, the study of the papers of the scientist on the problems of pedagogical psychology were applied.

3. Results

The ideas of Alexander Romanovich Luria set forth in his famous research papers: ‘Language and consciousness’ (1998), ‘The main problems of neurolinguistics’ (2007), ‘The development of speech and the formation of mental processes’ (1959), ‘Fundamentals of Neuropsychology’ (2008), ‘On the pathology of grammatical operations’ (1946) were reflected in works of domestic and foreign scientists of recent years and are of undoubted interest for modern pedagogical psychology. Study of the role and significance of understanding in the development of self-knowledge of children of primary school age in the teaching and cognitive process [39]; the study of psychophysiological features of perceptual learning in the perception of emotional intonation of speech [11];
experimental-theoretical study of individual psychological features of mastering the German language by Russian-speaking migrants in the conditions of stay in the country of the studied language [15]; studying the features of the structure and semantics of inner speech [22]; the study of the difference in the decoding of visual-figurative and logical connections of musical utterances among musicians and people not familiar with the musical notation by [13]; The study of linguistic markers of verbal creativity of preschool and primary school children [46]; study of the features of understanding of logical and grammatical constructions by children with a lag in the development of the cognitive sphere [40]; the study of individual differences and talents for art in the context of the problem of interhemispheric asymmetry and interhemispheric interaction of adolescents – students of the College of Music and Theater Arts [23].

In the research of Sorokoumova conditions that promote the development of self-knowledge of children of primary school age on the basis of the relationship of cognitive and personal and semantic aspects of understanding are identified and experimentally tested.

The results of the research broaden the scientific understanding of the role and significance of understanding in the development of self-knowledge of children of primary school age in the teaching and cognitive process, and allow a broad approach to solving the problems of humanization of education. The rationale for the need of developing self-knowledge at an earlier stage of ontogenesis will allow us to redesign the content of education in an elementary school, to change the strategy and tactics of teaching students of pedagogical universities in the direction of their mastering the methodology of developing self-knowledge of junior schoolchildren in the process of training in educational institutions of various types.

At the same time, Sorokoumova stands for a number of problems, the study of which can and must be continued. In particular, this is the study of how the teacher develops and improves in the process of developing children’s self-knowledge, what are the mechanisms for developing self-knowledge, how the process of self-knowledge of adolescents is developing on the basis of the relationship between the cognitive and the personal-semantic aspects of understanding.

The main provisions presented in the papers of A.R. Luria, ‘The Brain of Man and Mental Processes’ (1963), ‘The Development of the Constructive Activity of a Preschooler’ (1995) allowed Matyash (2000) to develop a holistic psychological and pedagogical model of the project activity of schoolchildren in the structure of technological education. This model includes the main structural elements of the project
activity and the links between them, serves as the basis for further theoretical research and practical organization of the process of education.

In the research of Matyash a set of theoretical provisions that reveal the psychological essence of the project activity of schoolchildren is defined. The conceptual framework are outlined and a psychological analysis of the content of the project activity of schoolchildren in relation to other relevant and pertinent concepts was made, which made it possible to single out the project activity of schoolchildren as an independent psychological category.

A holistic psychological and pedagogical model of the project activity of schoolchildren in the structure of technological education is developed, which includes the main structural elements of the project activity and the connections between them, which serves as the basis for continuing theoretical research and practical organization of the learning process.

Analysis of the results of the study allowed Matyash to prove that the project activity of schoolchildren is one of the structural units of the process of technological training and meets the requirements of the flexible model of the organization of the educational process, aimed at creative self-realization of the student’s personality.

As Matyash believes, the conducted research, does not claim to exhaustive consideration of the problem, given its complexity and interdisciplinary nature. In this regard, Matyash notes that next questions require further studying: particular qualities of the formation and transfer of skills in traditional and project training; the problem of identifying features and levels of project skills and abilities; determination of the effectiveness of mastering knowledge in various types of project activity, their quantitative and qualitative characteristics; creation of cognitive maps of the project activity and their transfer to the perception of the surrounding world; achievement of social and communicative competence through project activities, etc.

The following prospective directions for further research of the problem, according to Matyash, can be listed: consideration of project activities as a process of interaction between the teacher and the student, who are its equal subjects; analysis of the system of ideological components of the project consciousness; manifestation of the over-the-situation and over-normative activity of the individual in the project activity; the ratio of creative and reproductive components in the birth of ideas and the realization of creative projects.

In the studying of scientific heritage of L.V. Zankov and his influence on the development of pedagogical and special psychology by Kalinina (2001), it was noted the importance of the developed ideas of Luria, A.R. & Vinogradova O.S. (1969) in the field
of pedagogical and special psychology, presented in the work ‘Objective study of the meanings of the normal and mentally retarded child’.

Developing the ideas of A.R. Luria outlined in the work ‘Neuropsychology and the problems of teaching in the general education school’ (Luria, & Tsvetkova, 1996) on the conditions for the success of solving exercises by students, Rogova (2012) discovered another important condition. According to Rogova this condition is the memorization of the question, the answer to which is the goal of this task. As a result of her research, Rogova concludes that remembering and retaining the question is a prerequisite for developing a strategy for solving problems of a higher level of complexity.

Analysis of trends in the development of the service of practical psychology of education in the modern megalopolis, conducted by Kobozeva (2002), based on the main ideas set forth in the papers of A.R. Luria ‘Fundamentals of Neuropsychology’ (1973), ‘Mentally retarded child’ (1960), ‘Neuropsychology and the problems of teaching in the general education school’ (Luria, & Tsvetkova, 1996) showed that the effectiveness of the development of the service is ensured, first of all, due to the increasing differentiation and specialization of the psychological care system.

As a result of the analysis of the development tendencies of the service of practical psychology of education, Kobozeva concludes that today a single psychological space for the activity of the service of practical psychology of education is being formed, its structure is being formed, its goals, functions, forms and methods of work are being specified. The content of a psychologist’s education activities at the modern stage of the educational experimental psychology has been differentiated and must comprise a broad range of tasks (e.g., diagnostics and correction of the intellectual, personal, and emotional-volitional characteristics of students; recognition and elimination of the psychological causes of different disorders, etc.).

The development of A.R. Luria’s ideas within the framework of continuous education and education in senior age seems promising. As a positive trend in the Russian modern education, note may be taken of the creation of people’s university based on higher educational institutions for the purpose of teaching senior citizens. These are programs for the legal literacy, computer literacy, and personal creative development of an older person [4, 5].

The modern psychological science views aging as another development stage at which the neogeneses of a progressive personality can take shape. The purpose of Naumova’s study (2012) was finding ways of influencing a personality’s creative activity as a mean of personal stimulation for progressive flowing of aging. Naumova’s study results have shown that the creative activity facilitates the constructiveness of
development and leads to a positive resolution of the discrepancies of this period; the resolution finds expression in emotional well-being, open-mindedness, drive for self-development, independence, and ability to run the life.

The Mexican researchers, Delgado Garcia et al. (2012) were studying the assessment of emotionally colored visual impetuses when senior persons gave names to objects. The authors of this study point out that naming objects usually does not take much effort, but in some cases senior persons struggle to find proper words. The purpose of Delgado Garcia’s et al. study was the assessment of emotionally colored photographs impacting the process of giving names to objects. The results of this study allowed to draw a conclusion that the participants, in the proposed analytical tasks, showed a lower reaction time and a higher accuracy when providing emotional impetus rather than neutral and unpleasant images.

The results of Kuznetsova’s study (2005) on the history of learning the synesthesia phenomenon taking into account A.R. Luria’s ideas presented in the book ‘The Little Book about Large Memory’ (1968) allowed to make interesting conclusions. She argues that the synesthesia mentioned in medicine implies that the synesthetic has the brightness of impressions; involuntariness in the synesthesia emergence; the reality of the feelings can reach a painful sensory threshold; it is accompanied by uncanny memory that, at retrieving the material memorized, takes more time from the synesthetic than from ordinary people. Materials of the study Kuznetsova can be used to modernize the textbooks of the new generation, taking into account the characteristics of left and right hemisphere pupils, developing expressiveness of speech and communicative skills through metaphoric-synesthetic strategies, contributing to the ability to reflect, activating all the modalities of perception.

The ideas of A.R. Luria in the context of the psychology of perception are reflected in works on musical psychology and musical pedagogy, which are of great importance for the development of musical education.

Historical analysis of the development of musical psychology in the XX century, conducted by Vyshegorodtseva (2001) based on the ideas of A.R. Luria (Velichkovsky, Zinchenko, & Luria, 1973) made it possible to conclude that the development of the subject area was influenced by musical pedagogy, which arouse interest in studying the specifics of abilities and their development; and gestalt psychology, which made the perception as the object of study. The subject of studying is the personality included in musical activity, the emphasis is placed on the personal processes of the composer – performer – listener.
In recent decades, Vyshegorodtseva emphasizes, the role of applied areas of psychology has increased. The tendency toward a comprehensive, integrative study leads researchers in various fields of knowledge (psychologists, physiologists, musicologists, teachers and musicians) to understand the need for their interaction and cooperation in order to broaden the knowledge of the studied phenomena, to develop appropriate methods of research and to apply the obtained knowledge.

On the possibility of applying the ideas of A.R. Luria on language in the study of the language of music draws attention to Gilmanov (2012). He notes that the problems of the language of music and the structure of musical speech have been in the attention of foreign and domestic researchers for several decades already. However, despite the abundance of the proposed approaches (semiotic, semantic, ‘generative and grammatical’, etc.), a single psychologically sound solution to these problems has not been worked out.

Very productive in addressing these problems, Gilmanov notes, may be reliance on the ideas of A.R. Luria on the evolution of language, the idea that the language of music from the expression of sympathetic situational connections develops to the ability to express personal states and cultural meanings. In the studies of Gilmanov deep differences in the decoding of visual and logical connections of musical statements among musicians and people who are not familiar with musical notation are empirically revealed.

The ideas of A.R. Luria served as the basis for studies of the educational and professional activities of students-psychologists, the conditions for effective preparation for professional activities in the university ([1, 6, 7, 19, 28, 41, 43, 44], etc.)

In the work of Kurilovich (2008), aimed at the formation of dialogical interaction in the educational and professional activities of students-psychologists the main ideas of A.R. Luria, set forth in his book ‘Experimental Conflicts in Man’ (1930) are reflected. As a result of the conducted research, Kurilovich singled out and substantiated the main conditions and criteria for increasing the effectiveness of the formation of dialogical interaction between students and psychologists in the context of educational and professional activities; has developed, experimentally tested a step-by-step model of the formation of dialogical interaction, as a system of conditions and criteria that ensures the transition of pedagogical interaction to a more qualitative level.

to define and describe the psychological and pedagogical conditions for the formation of the image of the body in the minds of students-psychologists.

Psychological determinants of development of communicative abilities of students-psychologists have been revealed by Anikeeva (2012) based on the main provisions of the theory of A.R. Luria, set out in his research paper ‘Fundamentals of Neuropsychology’ (1973). Analysis of the results of the study allowed Anikeeva draw the conclusion that communicative abilities represent a complex hierarchical system, on the one hand, included in the overall structure of human abilities, on the other hand, acting as a part of individual psychological characteristics of personality, ensuring the effectiveness of communication with other people and psychological coherence in joint activities. They are dynamic, develop in the corresponding activity under the influence of internal and external factors.

The ideas of A.R. Luria, as one of the founders of the cultural–historical theory, set forth in his work ‘On the historical development of cognitive processes’ (1974), can be traced in the acmeological concept of the school psychologist training in the university Vishnyakov (2006). In his study Vishnyakov argues that professionalization takes place in the professional, cultural and educational environment presented to the student by psychology teachers as a collective subject. Vishnyakov emphasizes that teachers embody the social group ‘psychologists’ and are the bearers of the culture of professional psychological activity. This culture includes a system of norms of regulation of interaction with another person and ways of psychological influence on him. Collaborative research (teacher and student) professional psychological activity and the process of professionalization of the school psychologist activates a reflection of the student – Vishnyakov considers. It is aimed at the content of methods of psychological activity and stimulates awareness of the purpose and result of psychological influence on another person, shapes the use of scientifically grounded criteria for the effectiveness of the work of a psychologist, stimulates awareness of the formation of professionally important individual, personal and subject qualities. This impact of scientific research activates the process of professionalization and the formation of subject technology in the student.

Improvements in the training of psychologists are also facilitated by the findings of the study of Malyavina (2003) of the problem of individuality in domestic psychology. Malyavina believes that the generalization of the results of previous studies in the Russian differential psychology allows to make clarifications in the programs of educational classes of the history of psychology and opens new prospects for modern work in this field, the effective application of an individual approach in
various spheres of public life (pedagogy, psychological practice, sports and etc.). In
her study, Malyavina paid much attention to the theoretical propositions of A.R. Luria,
represented in his works: ‘About the natural scientific foundations of psychology’
(1978), ‘About the nature of psychological functions and its variability in the view
study of disorganization of human behavior’ (2002), ‘Development of the constructive
activity of a preschool child’ (1948).

Interesting and relevant in the context of training of psychologists we see the study
of Sobkin (2012) of coding sense means in the learning process of student actors in
the course of rehearsal work on excerpts. This research is based on the analysis of
acting psychotechnics as a means of coding the meaning presented in the article ‘Ways
and Means of Coding the Meaning’ by Knebel, & Luria (1971). This article analyzes the
peculiarities of mastering the text in the situation of teaching students to acting skills.

4. Conclusions

The generalized analysis of the scientific heritage of A.R. Luria, showed the importance
of the theoretical propositions he developed in the field of pedagogical psychology.

A large number of domestic and foreign scientists carry out research within the
framework of pedagogical psychology, relying on the theoretical propositions of A.R.
Luria; many researchers have developed the theoretical foundations of learning, which
particularly favorably affect the development of the intellectual, volitional, emotional,
motivational sphere of the learner’s personality.

The theoretical propositions of A.R. Luria are promising for investigating the prob-
lems of pedagogical psychology, which reflect the idea of the interaction of humanitar-
ian and natural science knowledge in the integral study of man, the cultural and histor-
ical understanding of the development of mental functions (their social determinism),
the possibility of applying the ideas of A.R. Luria about the language in studies of the
language of music for the development of musical education.

The conducted research testifies to the significant contribution of the scientist to the
development of the problems of pedagogical psychology. Luria’s ideas are important
for solving a number of the topical psychological and pedagogical problems: training
and development of the person at any age; studying individual and typical features
in mastering a foreign language; the study of the semantics of speech and means of
coding meaning in the context of professional training of psychologists and teachers, specialists in the field of artistic creativity.

The presented analysis of the main ideas of A.R. Luria promotes a deeper understanding of theoretical problems from the point of view of modern science and psychological and pedagogical practice.

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