

## **Contributions to contemporary research of Luria's cultural-historical approach**

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### **Abstract**

This essay aims to explore the fecundity of the postulates of Alexander Romanovich Luria to contemporary research. More specifically, it will seek to elucidate the vigor of the premises, ideas, and investigation procedures adopted in his studies on mental processes in their relation to culture throughout a career that spanned almost six decades. The contributions of the Lurian approach are illustrated by the description of some of the studies he carried out last century. The text places emphasis on the promising nature of this approach for the investigation of human development, since it makes it possible to understand the phenomena in their complexity, the need to create research instruments and procedures capable of ensuring this understanding, and also the active role played by the researcher in the formulation of questions and in the conduction of empirical research. The presentation and analysis of features representative of the various themes explored by the author reveal a researcher determined to understand the complex process of the human constitution through the fertile combination of investigations on the biological roots of psychological functioning and the historical making of the human psyche.

**Keywords:** Luria – Qualitative research – Cultural-historical psychology – Neuropsychology – Culture and thinking.

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There can be little doubt that the Russian neuropsychologist Alexander Romanovich Luria was one of the 20<sup>th</sup> century exponents of the study and understanding of the psychic processes. The excerpts below testify to the place of prestige he occupies among contemporary authors interested in the human development:

I am among those who have been fortunate enough to have examined patients with Professor Luria at the Budenko Neurological Hospital in Moscow. It is an experience never to be forgotten, for his subtle capacity for bringing important material to light by ingenious questions and novel procedures is truly remarkable. It was no less so in the 1920's, when this study began. (Bruner, 1987, pp. xxiv-xxv)  
He was the most significant and fertile neuropsychologist of his time, and he elevated neuropsychology to a sophistication and simplicity unimaginable fifty years ago. What

distinguished his approach from the start and constituted a steady line in all his studies was the sense that he had that even the most elementary functions of the brain and mind were not entirely biological, but were conditioned by the experiences, interactions and culture of the individual – his belief that human faculties could not be studied or understood in isolation but had always to be comprehended in relation to the live and formative influences. (Sacks, 2008 p. 9-10)

Throughout the first six decades of Soviet psychology Alexander Luria labored to make it a science that would fit the dreams of its founders: a Marxist study of man, in favor of the people of a democratic and socialist society. Luria lived through pioneering experiences in contact with problems and insights accumulated by Psychology all around the world, since its beginning a hundred years ago. His work is a monument to the intellectual and humanist tradition, apex of human culture, which he tried to understand and perfect. (Cole, 1992, p.11)

More than thirty years after his death the seminal works that Luria created in the field of memory, language, and cognitive development – some of them already classics – continue to raise widespread attention and interest. His creativity as an investigator, appreciated in psychology, neurology and linguistics, but still little known among researchers in the Brazilian educational field, makes significant contributions that help to understand the need for preserving the wealth of human reality in all its complexity. His studies conveyed his attempts to construct a research methodology capable of breaking away from the artificiality that characterized the psychological investigations at that time, which somehow are still present today. As expressed by Michael Cole (1992), Luria

[...] sought a new method which, being synthetic, reconciled the art and the science, description and explanation. It would remove artificiality from the laboratory, whilst keeping the analytic rigor. Having made his choice, he was confronted with a series of new options related to method and theory that would make possible his attempt at scientific synthesis. (p. 11)

For this reason, in the foreword to one of Luria's work, Jerome Bruner (2006) call him a "visitor from the future", a researcher who going against the prevailing trends in psychology at his time, knew how to combine "the clinical wisdom of the outstanding physician with the theoretical shrewdness of the scientist" (p. xxii). Bruner exalts in particular the perceptiveness of Luria's insights and observations, and the fact that he produced not only an expressive work, but also a new genre of writing (which Luria named "romantic science") that succeeds in going beyond the boundaries of a

cold clinical report, to understand the complex and singular manner in which the subject lives his/her human condition:

I suspect that in fact the invention of the new genre also reflects a change of mind in philosophy, a new chapter in the struggle to free human sciences from the tedious captivity of 19<sup>th</sup> century positivism. Explanation of any human condition is so bound to context, so complexly interpretive at so many levels, that it cannot be achieved by considering isolated segments of life in vitro, and it can never be, even at its best, brought to a final conclusion beyond the shadow of human doubt. For the human being is not actually 'an island'. He lives within a web of transactions, and his possibilities and tragedies originate in his transactional life. (p. xi-xii)

We understand that his effort and persistent interest in understanding the human subject in his/her totality and complexity, just as his attitude as a researcher – extremely bold for his time –, are still valid and seem to offer a profitable alternative path to face the problems and dilemmas that contemporary science has hitherto failed to solve. With the objective of contributing to the knowledge and dissemination of the Lurian approach, we have in this essay tried to analyze some of the aspects of his trajectory and of the scientific program he developed during nearly six decades of uninterrupted and intense work. In order to explore some topics we selected as central in Luria's work we opted to refer to his published works in Brazil aiming at offering the reader a survey of the works available in Portuguese, and at the same time locating in these works thematic, theoretical and methodological issues that characterize the work of the author as a whole.

In this short text we have no pretence of making a comprehensive presentation of the vast work of Luria, which comprises more than a dozen books and hundreds of articles published in several languages. Our aim here is, more modestly, to analyze some of the aspects representative of the various themes explored by the author throughout his research trajectory, with the objective of examining the foundations upon which his theoretical formulations rest, and, above all, to highlight features that the straightforward reading of assorted texts sometimes fails to reveal. Taking as a point of departure the wider context in which his concerns and productions can be inserted, we seek to elicit aspects that are implicit or presupposed in his propositions.

**Luria and his circumstances:** a complex man living in a complex time

I began my career in the first years of the great Russian Revolution. This single, momentous event decisively influenced my life and that of everyone I knew. In comparing my experiences with those of Western and American psychologists, there is one important difference. [...] The difference between us lies in the social and historical factors that influenced us. [...] My entire generation was infused with the energy of revolutionary change – the liberating energy people feel when they are part of a society that is able to make tremendous progress in a very short time. (Luria, 1992, p. 23)

Alexander Romanovich Luria loved the bitter irony in a joke popular during those times: “What is happiness? It is to live in the Soviet Union. And what is misfortune? It is to have such happiness”. He perfectly understood that his own life was full of such paradoxes”. (Cole, Levitin and Luria, 2005, p. 256)

Among many stimulating productions, Hannah Arendt (1987) wrote biographical texts about personalities of her time and of the past. In these writings the author told stories of people who were strongly involved in the tensions, dilemmas and accomplishments of their time. Her interest was to reflect on how those individuals moved around in the world and on how the world influenced their existence. It was, therefore, the intertwining of life with the context in which it was lived that interested Arendt. Through these life stories, she tried not just to save them from oblivion (to her, writing a biography meant bestowing immortality upon that which, by its own nature, is fleeting and perishable: human life), but also to create a moment of clarity in a world that was going through “a dark time”, marred by genocide, totalitarian practices and other barbarism. She believed that biographies were a good opportunity to understand not only the thought and work of the biographee, but also the unpredictable ways in which their realizations were made in the face of the context in which they lived.

It is under this perspective that we shall comment on some of the aspects of Luria’s life and work, whilst recognizing, alongside other authors (Dosse, 2009; Bourdieu, 1996, for example), that the life of any individual always exceeds the words about it. As a genre, all (auto)biographical writing seeks to impose linearity, coherence, and continuity onto experiences that are always dispersed, multifaceted, fragmentary, and discontinuous. No (auto)biographical narrative – however good – is capable of translating in all its wealth, complexity, and multiplicity, the life of a person.

A complex man living at a complex time. That is how Michael Cole and Karl Levitin (2005) define Alexander Luria. We can expand on this definition: a complex man, living at a complex time, whose main interest was of unveiling the complexity of the

constitution of typically human psychological processes<sup>1</sup>. The examination of some features of his academic and professional trajectory, as well as of the philosophical and epistemological assumptions underlying his theses, corroborates this definition. Luria was born in 1902 in Kazan, a small university town near Moscow, and died in 1977 in Moscow, of cardiac failure. He was the son of a distinguished physician, who also lectured at the Medical School in Kazan, specializing in stomach diseases, and nurturing an interest in psychosomatic medicine. Thus, Luria had early access to the most important productions of psychology at that time (such as the works of experimental psychology, and Freud's and Jung's theses). The fact that he knew German, and took part, with his family, in intellectual circles whose members studied outside Russia, meant that he was not restricted to Russian translations (Cole, 1992).

Luria spent his childhood in Kazan, living under the oppressive restrictions of Czarism. He was fifteen when the 1917 Revolution broke out. At that time, the atmosphere was one of enthusiasm with the profound and promising transformations that were taking place in Soviet society. In an autobiographical writing of the 1970s Luria (1992) says:

The content and the style of our lives changed almost immediately. [...] The limits of our restricted, private world were broken down by the Revolution, and new vistas opened before us. We were swept up in a great historical movement. Our private interests were consumed by the wider social goals of a new, collective society. (p.25)

The new social conditions also altered the path of his formation. In 1917 he had completed six of the eight years comprising the gymnasium. Instead of finishing the regular course, he obtained his certificate in the following year, thereby making, as many of his colleagues, an abridged course. Soon after graduation, therefore, when he was approximately seventeen, he entered the Faculty of Social Sciences of the University of Kazan. At that time universities were going through a chaotic period, because they began to accept, without any kind of adaptation, thousands of students from various secondary schools, with widely varying levels of preparation. As described by Luria (1992), "there was shortage of every kind. Perhaps the most

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<sup>1</sup> More complete information about Luria's scientific career and on the relations between his life, his work, and the conditions of the historical and social context of the country in which he lived can be found in Cole; Levitin; Luria (2005) and Homskaya (2001).

important of them was the shortage of teachers prepared to teach under the new conditions” (p. 25). The discussions about the need for reformulation and updating of the curriculum and of the dynamics adopted in the classroom mixed with other issues such as politics and the directions of the “new society” under construction, and involved pupils as well as the teachers.

Luria begins then to participate actively in these discussions and also in meetings of scientific associations. According to his own assessment, it was at this time that he began to be interested in utopian socialism with the intent of understanding the problems of his time, and particularly the issues related to the role of man in the shaping of society. It was also at this point that his interest in the field of psychology sprung up, and his project of “developing a concrete psychological approach to the events of social life” (Luria, 1992, p. 26) begins to take shape, albeit incipiently. Such interest increased as he got in touch with the formulations of the pre-revolution academic psychology then prevailing at the universities (strongly influenced by German philosophy and psychology):

I was depressed by how dry, abstract, and removed from reality all those arguments seemed. I wanted a psychology that would apply to real people as they live their lives, not an intellectual abstraction in a laboratory. I also found academic psychology terribly unattractive because I could see no way to connect such research to anything outside of the laboratory. I wanted a psychology that was relevant, that would give some substance to our discussions about building a new life. (p.27-28)

Luria obtained his diploma in Social Sciences in 1921 at the age of nineteen. Despite being already drawn to the themes related to psychology, he started his Medicine course in that same year, encouraged by his father, and he also began his training at a pedagogical institute:

At that time it was possible to be enrolled simultaneously in more than one school. So, I began taking medical classes and completed about two years of medical school before interrupting my studies, which were resumed only many years later. Simultaneously I spent time at the Pedagogical Institute and the Kazan Psychiatric Hospital. (p. 30)

Luria’s studies in the field of Medicine were resumed only in 1936, and he graduated in 1937. At the same time he did a doctorate at the Institute of Psychology of Tbilisi,

with a thesis that was a reformulation of the text *The nature of human conflicts* published in 1932.

He started his research activities by the late 1920s, working at the Institute of Psychology of Moscow. At that time, Russia was undergoing profound changes. This historical circumstance drove and marked vividly all his scientific endeavors. Later, since 1924, when he was simultaneously a colleague and disciple of Lev Semionovich Vygotsky (1896-1934), he took part with Alexei Nikolaievich Leontiev (1904-1979) in a group of intellectuals involved with the creation of “a new psychology”, a theory of human intellectual functioning grounded on dialectic materialism. The group’s research program, which years later would give rise to the so-called cultural historical psychology expressed, as considered by Luria, the aspirations, the idealism, and the cultural effervescence of a post-revolution society:

With Vygotsky as our acknowledged leader, we undertook a critical review of the history and situation of Psychology in Russia and in the rest of the world. Our purpose, overambitious as everything else at that time, was to create a new, more encompassing, way to study human psychological processes. (Luria, 1988b, p. 22)

His first works were, therefore, developed during the first years of the Russian Revolution. Afterwards, more mature, and in accordance with the climate of enthusiasm of a post revolution society, he dedicated himself more intensely to the project of building a new psychology which, incorporating the principles of dialectical historical materialism, would be able to integrate under a single perspective the human being as body and mind, as a biological and cultural being, as member of an animal species and participant of a historical process. Between the 1930s and the 1950s, for three decades, therefore, he had to endure the obscurantism, the censorship and political persecution that followed the exacerbation of the Stalinist dictatorial regime. In the last decades of his life he worked intensely under a climate of political opening, thanks to the dissolution of the Stalinist regime, and had his work disseminated in the West especially through the contribution of North American researchers who had been his students in periods of their professional training in the Soviet Union.

**Luria in Brazil:** theory and research

Although Luria is known in Brazil, particularly in the areas of Psychology and of Education, more as a colleague and disciple of Vygotsky, his works were disseminated here before those of Vygotsky (whose first book was published here in 1984) and they followed initially and independent trajectory. The first two texts by Luria published in Brazil in 1979 and 1981, respectively, *Curso de Psicologia Geral* (Course on General Psychology) and *Fundamentos de Neuropsicologia* (Fundamentals of Neuropsychology), both out of print, give us an idea of a very central dimension of his work and of the way his ideas were disseminated in Brazil. Such dimension relates to his production as neuropsychologist and explains the fact that he was initially known mainly to Brazilian scholars of the areas of biological sciences, medicine, and phonoaudiology. The text *Curso de Psicologia Geral* was translated directly from the Russian by Paulo Bezerra and consists in a kind of introductory manual in four short volumes, originally targeted at Psychology students. It is organized in such a way as to go didactically through the following themes: the brain, the evolution of psyche and conscious activity; sensations and perception; attention and memory; language and thought. It is a general introduction to the study of psychology as a discipline with clear reference to the materialist bases of the cultural historical approach. Grounded on his studies on the problem of the organization of psychological functions carried out with healthy and injured subjects, Luria explores the brain as an open biological system in constant interaction with the physical and social environment in which the subject is immersed. The concept of brain plasticity, that is, the idea that typically human superior mental functions are constructed along the evolution of the species, of the social history of Man, and of the development of each subject, plays here an important role.

The book *Fundamentos de Neuropsicologia* was translated from the North American 1973 edition, *The working brain*, and is perhaps the most important reference on Luria for students of neurology and related areas in Brazil. Apart from the importance of the concept of brain plasticity, this book brings the central notion of a functional system. This notion refers to the fact that brain functions are organized around the action of several elements that work coordinately and that can be located in different areas of the brain, that is to say, they are not necessarily found together in specific points of the brain or in isolated groups of cells. Based on the concepts of functional

system and brain plasticity, Luria distinguishes three units of brain functioning whose participation is necessary to any psychological activity.

The first unit, dedicated to the regulation of brain activity and of the state of vigilance, guarantees the maintenance of the level of activity and alertness appropriate to the needs of changes in behavior and of its directing to the demands of the specific situation in which the organism finds itself.

The second unit is for the receiving, analysis, and storage of information, and is initially responsible for the reception of information through the sense organs. The specific data so obtained are analyzed and integrated into more complex sensations, which will later be synthesized into even more complex perceptions. Such perceptions involve information coming from the various sensory modes, and allow the construction of conceptions of scenes, events and situations that develop in time and space. All these information, from the more simple to the more complex, are stored in memory and can be used by the subject in latter situations.

The third functional unit postulated by Luria addresses the programming, regulation, and control of the subject's activity. The alert organism – that receives, organizes, and stores information – eventually forms intentions, building programs of action, and carrying out these programs through exterior, motor acts, or interior, mental acts. This third unit is responsible for these complex tasks, and also follows up the ongoing actions, comparing the effects of the actions taken with the initial intentions.

It is important to emphasize that any form of psychological activity is a system involving the simultaneous operation of the three functional units. Visual perception, for example, involves the adequate level of activity of the organism (first unit), the analysis and synthesis of the information received by the visual system (second unit), and the subject's intention of looking at a given object with a given purpose and the corresponding mobilization of the body (head positioning, eye movement) so that the full perception can take place (third unit). Also fundamental in Luria's statements is the fact that the three functional units operate together throughout the life of the individual, and that the relations between them are transformed in the development process, always in interaction with the cultural historical context in which the subject finds him or herself. Because it is an open system, the brain is prepared to accomplish several functions depending on the different modes of insertion of man in the world. The exploration of the various systems at work in the brain and of their

relationship to psychological processes, grounded on Luria's clinical and research experience, represents a fundamental dimension of his work, and it is worthy of note that it was the first subject to raise the interest of his students in Brazil.

Readers from the fields of Psychology and Education, on the other hand, have read Luria mainly as a representative of cultural historical psychology and, particularly, as Vygotsky's collaborator. Although the first texts by Luria published in Brazil clarify his contribution to the construction of the discipline of Neuropsychology, some of his other works are fundamental to understand his approach in what concerns the role of culture in psychological development.

Two of his books are particularly relevant in that respect. The first of them *Desenvolvimento cognitivo: seus fundamentos culturais e sociais*, published in Brazil in 1990, was translated to Portuguese from the North American 1976 edition. In what was then the Soviet Union, the book had been first published in 1974, more than forty years after the conclusion of the empirical work on which it is based. As explained by Michael Cole in his preface to this book, the issue of national minorities in the Soviet Union was a sensitive subject at the time of the study, because of the project of integrating all those peoples under the socialist, industrialized regime. There was not, consequently, an atmosphere favorable to the investigation of different modalities of intellectual functioning present in different social groups, and Luria's research on the cultural bases of cognitive development is targeted precisely at that question.

The book gathers data collected in the years of 1931 and 1932 by Luria and a team of researchers in Central Asia with the objective of investigating how the higher psychological processes are constructed under different cultural contexts. The region where the study was developed (Uzbekistan and Kirghizstan) had been traditionally isolated and economically stagnant, displaying high levels of illiteracy, a predominance of Muslim religion and of rural labor in individual properties. At the time when the study was conducted, however, it was going through a process of rapid social changes, specifically with the establishment of collective farms, mechanization of agriculture and increased schooling of the population. This period of radical transformations represented a unique opportunity for the search of an empirical support for the thesis that mental processes are cultural – historical in their origin.

Luria and his team conducted extensive interviews with residents of the places selected for the study, during which they presented the subjects with several kinds of

tasks: activities of perception, abstraction, generalization, deduction and inference, solving of mathematical problems, imagination and autoanalysis. The results obtained were quite consistent, demonstrating fundamental changes in the mode of psychological functioning of the subjects as the process of literacy and schooling took place, as well as the changes in modes of labor. The subjects with more schooling and involved in collective and modern work conditions usually dealt better with the generic and abstract attributes of the objects, whereas those illiterate or with little schooling and tied to traditional modes of labor normally referred to concrete contexts and particular experiences to guide their reasoning process.

This pioneering work is considered a classic in the field of intercultural studies, regarded as a basic reference for those working with the study of relations between cultural contexts and psychological functioning. Besides the undeniable, albeit controversial<sup>2</sup>, contribution offered by the results of this study, the intercultural investigation developed by Luria constitutes important groundwork for the research methodology on human development. In the first place, for its groundbreaking ethnographic approach: already in the 1930s Luria and his colleagues were trying to live for some time with the members of the community studied before beginning the gathering of data, so that only after establishing some relationship with the subjects they began to interview them in more comfortable settings with culturally significant material.

Apart from that, they made use of an instrument they called the “hypothetical opponent”, which consisted in presenting the opinion of a fictitious character to the subject as a way of provoking his reflection. For example, when a subject declared to be unable to say anything about the color of bears of a certain region based on the information given by a syllogism, an intervention such as “someone I interviewed yesterday told me that up north the bears are white” could lead the subject to express and opinion for or against that person. The use of the hypothetical opponent, along with other questionings made to the subject, consisted in a form of explicit intervention of the researcher, usually absent from the procedures of scientific

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<sup>2</sup> One of the hotly debated questions in the field of the relations between culture and thinking is that concerning the existence of more or less sophisticated modes of intellectual functioning. To some extent, Luria’s study strengthens the notion that certain cultural groups think in a more ‘advanced’ way. In his preface, Michael Cole (1990) affirms that “what Luria interprets as the acquisition of new modes of thinking, I tend to interpret as changes in the application of previously available modes to particular problems and contexts of the discourse represented by the experimental situation” (p.16).

investigation. Such intervention often resulted in changes in the subject's performance observable during the very action of collecting the data, thereby enriching the understanding of the researcher about the phenomenon under study. Promoting development processes from situations of social interactions is an idea very dear to the theoreticians of the cultural historical approach, and can be clearly related to the concept of zone of proximal development used by Vygotsky.

Luria's second book, especially important to understand the role of culture in psychological development, *Estudos sobre a história do comportamento: símios, homem primitivo e criança*, was written in collaboration with Vygotsky and published in the Soviet Union in 1930, being translated into Portuguese in 1996 from the 1993 North American edition. The book brings three essays dealing with the trajectories constituting the history of human behavior: phylogenesis, sociocultural history, and ontogenesis. The first two were written by Vygotsky, and the third by Luria. The structure of the book and its contents clarify the notion of development in terms of different "genetic plans" that interact in the constitution of the human subject, and the consequent postulation of a genetic method for the study of development, which is central to understand the approach of these scholars.

When discussing the psychological development from animal to human being, from the so-called "primitive man" to the "cultural" man, and from child to adult, Luria and Vygotsky stress the idea of transformation, and move away from a naturalized conception of development. They emphasize the invention and use of instruments by the primates, the appearance of labor, and the use of signs in human history and the cultural development within the life of the child. In his essay on child development, Luria (Vygotsky; Luria, 1996) says that it is

[...] impossible to reduce the development of the child to the mere growth and maturing of innate qualities. [...] In the development process the child 'reequips itself', modifies its most basic forms of adaptation to the exterior world [...], begins to use all kinds of 'instruments' and signs as resources, and fulfills the tasks it faces much more successfully than before. (p.214)

It is also important to mention that the relevance of this publication owes also to the competent work of the North American editors Jane E. Knox and Victor I. Golod. Apart from the rigorous translations, the editors, based on extensive bibliographical research, endeavored to supply references absent from the original text, and also to

situate the authors' ideas within the context of the time at which they were produced and of the contemporary debate.

At the intersection of psychological processes and cultural development, the question of the language, especially in what concerns its relation with thinking, appears as particularly relevant to authors of a cultural historical approach. In Luria's writings this theme always emerges, more or less explicitly, under various guises. In two of his books published in Brazil language takes on a central role, from the title of the work to the content it explores.

The first of them, posthumous, is called *Pensamento e linguagem: as últimas conferências de Lúria* (Thought and language: Luria's last conferences) and was published in Brazil in 1985. It consists of a collection of conferences given by Luria in his last years to students of the Moscow University. It represents a systematization of questions related to the development of language, its neurological basis and its relations to psychological processes, which had been an object of study for Luria during his whole life as a researcher. Initially, he clarifies the assumptions of cultural historical psychology, with which he keeps a continued dialogue throughout the volume, and he then looks into more specific topics such as the regulating function of language, the development of concepts, the verbal structures, and speech problems resulting from brain damage. It is worth mentioning that the text of the conferences translated into Portuguese from a Spanish edition, despite representing a good introduction to Luria's thinking, has a few structural problems due to the fact that it was edited from stenography notes that were not reviewed by the author.

In the short book written in collaboration with F. I. Yudovich, *Linguagem e desenvolvimento intelectual na criança* (Language and intellectual development in the child) published in Brazil in 1985 the issue of the relations between language and intellectual development is explored through an empirical study carried out with a pair of identical twins who at the age of five showed significant delay in their speech progress. The twins were separated for three months and one of them was subjected to special verbal training. The situation of separation created in itself the objective need of communication with other people, thereby improving the linguistic performance of both children. Besides, the twin subjected to a reeducation process presented changes in the grammatical structure of the speech and in the development of verbal understanding, progress in playful activities, in constructing

activities, and in several intellectual operations. From these data the authors advanced a discussion of the role of cultural tools, especially language, in the organization of thought.

An important dimension of Luria's work, alongside his dedication to canonical science, is his effort to revive the so-called "romantic science". The latter attempts to escape from the reductionism inherent to the analysis of phenomena into their elementary components, making use of the art of observation and description, and preserving the wealth and complexity of reality in its totality. The conflict between these two modalities of construction of the knowledge was one of the fundamental methodological concerns of Luria and brought him closer to Vygotsky in the struggle against the so-called psychology crises of the early 20<sup>th</sup> century.

Two books are regarded by Luria as resulting from this effort. The text *A mente e a memória* (Mind and memory), published in Brazil in 1999, presents the systematic study he conducted for decades on Sherashevsky, a man who through his prodigious memory eventually becomes a professional mnemonist. His memory is described by Luria as complex and of the eidetic-synesthetic type: he converted his impressions, including words heard, in visual images associated to other sensations such as sounds, tastes and tactile sensations. Such profusion of sensory information generated at each stimulus received, alongside his difficulty in eliminating contents stored in memory, are features that turned Sherashevsky's exceptional ability into a handicap. His whole personality and behavior were somehow compromised by the peculiarity of a psychological system that prevented him from forgetting, hampering the process of generalization of information and of focusing on real situations despite his idiosyncratic mental storage.

In *O homem com um mundo estilhaçado* (The man with a shattered world), recently published in Brazil, Luria (2008) describes the longitudinal case study performed with Zasetky, a subject who had a brain lesion caused by fragments of a projectile during World War II, and experienced difficulties related to the loss (or collapse) of specific cerebral and mental functions, including memory loss. Luria followed this subject as his patient for more than thirty years and gives us a rich combination of rigorous scientific description of the neurological sequels of the accident with a search to understand a human being in his entirety and complexity. One of Luria's main sources for this work was a journal written by Zasetky from which he extracted a

substantial portion of the published text, giving voice to the research subject himself, a methodological solution of extreme modernity.

Joining the rigorous scientific description of the pathologies with the analysis of the modes of rehabilitation of the subject, Luria endeavors to understand the alternative paths of development. Convinced of the importance of interactions, of the weight of culture in the constitution of psychic processes and of the active role of the subject in appropriating the cultural historical experience, he takes as a point of departure that the development process of each person follows a singular trajectory. The same starting point will never lead to the same end point. It is therefore necessary to see handicapped subjects as complete subjects, and to study the way in which they manage and apply the available resources, since this may allow them to compensate their specific deficits through the use of other types of resources.

The rehabilitation of the wounded during World War II absorbed Luria's efforts, as those of a large number of psychologists at that time. However, his work went beyond the more applied dimension, producing valuable knowledge about the functioning of the brain and its relation to the psyche. In those two extraordinary and extreme cases, Luria was not only interested in examining the pathology, but in describing and explaining how the life condition of these suffering men influenced their thoughts, behavior, and identities. In this perspective, instead of

[...] excluding the sick and handicapped from the sphere of human explanation, we asked ourselves, conversely, about their subjective universe, their implicit epistemology, their assumptions. They ceased to be 'cases' and became human again. (Bruner, 2006, p. x)

From the corpus of Luria's works published in Brazil, it is worth mentioning a brief article included in a collection of texts by Soviet authors edited in 1988 (Vigotskii; Luria; Leontiev, 1988a) entitled *O desenvolvimento da escrita na criança* (The development of writing in the child). At a time when the studies by Emilia Ferreiro on the psychogenesis of the written language were being highly explored by Brazilian researchers, and disseminated among teachers of the public and private school systems, particularly in the state of São Paulo, Luria's article on the history of writing in children had a significant impact, stimulating dissertations, journal articles, and lively debate among researchers.

In this work Luria describes an experimental study conducted with small children who had still not learned to read and write, exploring their production from the suggestion that they should write down the sentences spoken by the researcher so that they could remember them later. On the basis of the data obtained, Luria proposes a trajectory of development of writing that starts with the so-called “undifferentiated scribbles”, which only imitate the shape of adult writing, moving on to topographic markings (whose position on paper supplies clues for remembering the sentences to be recalled) and then to markings that reflect concrete features of the things spoken (size, shape, quantity, color), until reaching the pictographic representations, drawings with the function of representing given contents. From them on, the child will develop the resources of symbolic writing, devising ways of representing information difficult to draw (for example, a dark blot may represent sadness), and from the discovery of the instrumental nature of writing she will be ready to learn the written language properly.

Luria emphasizes the social function of writing and its uses in the literate society, particularly the need to record information for later retrieval, and the interaction of the child with the format of the writing available in its surroundings. His genetic outlook on the emergence of writing, profoundly innovative when first published in 1929, focuses on the appropriation of a cultural tool by the child immersed in a literate environment, especially based on the social functions of this tool. It is, therefore, distinct from Ferreiro’s psychogenesis of writing, whose focus is on the reconstruction at the individual cognitive level of a representational system previously constructed and available to the social group to which the child belongs.

To conclude this survey of Luria’s works available in Portuguese it is worth mentioning the book *A construção da mente* translated in 1992 from the 1979 North American edition of *The making of mind*, organized by Michael and Sheila Cole. Having worked with Alexander Luria during the last years of his life on the subject of his autobiographical texts, the Coles completed the edition of these writings after Luria’s death and published them posthumously. Organized in thematic chapters, this work is less a properly autobiographical narrative, and more a kind of panorama of his own scientific production, constituting an important source for the knowledge of Luria’s work at a whole. The foreword and epilogue written by Michael Cole at the

time put Luria's life and work in the historical context in which he lived and produced, and have been important complements to understand the author's text.

It is, however, important to mention that restrictions imposed by the Soviet regime which still dominated the 1970s/1980s placed boundaries on both Luria's autobiographical effort and on Cole's texts published in *A construção da mente*. Michael Cole and his Russian collaborator Karl Levitin, whilst involved in several events related to the celebration of Luria's centenary in 2002, observed the "sharp contradiction between what we know about the reality of Luria's life and work and the impoverished impressions transmitted by Luria's autobiography and biographies written about him", (Cole; Levitin; Luria, 2005, p. xv). They tried to overcome this situation by republishing the 1979 text with the addition of a new foreword and of a postscript, a supplementary bibliography, a DVD with interviews and archive photographs, and a website especially built to accompany the book (<http://luria.ucsd.edu>). This work is entitled *The autobiography of Alexander Luria: a dialogue with the making of mind*, and is still unavailable in Portuguese.

### **Final considerations**

The psychologist often finds himself in the same situation of the historian or archeologist, and then he acts as the detective who investigates a crime he did not witness (Vigotski, 1999, p.31).

The present article attempted to elicit the strength of the premises, ideas, and investigation procedures adopted by A. R. Luria in his studies on mental processes and their relation with culture throughout nearly six decades of activities. The presentation and analysis of distinguishing features of the various themes explored by the author reveals a researcher determined (as a detective investigating a crime) to understand the complex process of constitution of the human, who worked simultaneously as a "classical" scientist, concerned with methodological rigor and with the consistency of experimental findings, and as a "romantic" social scientist intrigued by the human drama and challenged by the many forms of constitution of the subjects.

The pioneering contributions of the Lurian approach, later strengthened by the rich partnership with Vygotsky and Leontiev – inspiring sources of the contemporary

research in several areas of knowledge – were illustrated by the description of some of his studies carried out during the first decades of the past century. In this presentation, the writings already translated into Portuguese have been emphasized. The perspectives offered by his works to current investigations, particularly within the human sciences, are, in our view, significant and fruitful. In the investigation of human development the perspectives opened by the groundbreaking works of Luria are related, among other aspects, to the possibility of understanding the socio-historic origin of mental processes, of examining the phenomena in their complexity, of drawing attention to the need of creating research instruments and procedures capable of reaching such understanding, and to the active role played by the researcher in the formulation of questions and in the conduction of empirical studies. As commented by Clotilde Rossetti-Ferreira and her collaborators (2008), the contemporary challenge in the field of the study of human development is still that of “how to face complexity in empirical studies in such a way as to avoid simplifying it and treating the parts as isolated from the whole” (p. 153). Based on Newman and Holzman (2002), these authors introduce the concept of a blacksmith researcher, which is quite useful to qualify the kind of action developed by Luria:

[...] we have, in our contemporary industrial society two kinds of instruments: those mass-made for producing a given result (a hammer to nail nails) and those projected and made by blacksmiths specifically to produce other instruments. The latter, despite having a purpose, are not categorically distinct from the results obtained by their use; they do not have any prearranged social identity independent of that activity, which is what defines the instruments and the product. Thus, differently from the user of the instruments of the ironmonger, who is guided by the specific behavior of employing instruments built for a predetermined function, the instrument of the blacksmith is neither defined nor predetermined; rather, it is involved in the typically human activity of acting upon historical totalities and modifying them, a Vygotskian notion of the social function of scientific investigation. Before such considerations, we can think about the researcher as a blacksmith. (p. 165)

For us, Luria’s works are exemplary in that sense. His studies are, above all, very inspiring examples of a vigorous and original way of researching development and of taking into account the historical, dynamic, systemic and interdependent character of the processes under investigation. We might say that he was a true blacksmith researcher who, concerned to understand men in their real process of development under determined conditions, was capable of devising instruments appropriate to

obtain the data and understand the reality or phenomenon he investigated. Luria was, therefore, an authentic representative of what Becker (1997) called an “intellectual artisan”, a builder of an “artisanal model of science” (p. 17). The way in which he managed to balance measures of creativity, boldness, and rigor in the construction of theoretical-methodological tools constitutes an important legacy to face the challenge of studying the human condition.

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