

Unity of Vygotsky-Leontiev-Luria within Diversity: Understanding the Past to Shape the Future of Russian Activity Theory and Cultural-Historical Theory

(Unpublished Paper)

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Introduction

The focus of this paper is on the Russian background of psychology, viewing the strengths and weaknesses in the history of this approach. Clearly, Vygotsky's strengths were in defining the genetic-developmental trajectory, semiotics, Marxist "cell" interpretation, aesthetics, internalization, mediation, defectology, social interaction, methodology, defectology, inter alia; in short, a new dialectical, non-classical psychology. The strengths of Leontiev were in establishing an activity theory related to life, all of which was also contingent upon the political realities of the Soviet period from the 1930s until his death in 1979. Luria, a lifelong admirer of Vygotsky, continued his research within the framework of cultural-historical theory, including neuropsychology, defectology, and theories of language, ultimately bringing that knowledge back to the understanding of normal mental development.

The purpose here is to begin to view the differences and problems within Russian psychology, to then reestablish their unity. It is claimed that there is one school of thought within the theories of Vygotsky, Leontiev, and Luria, with many varying trajectories and branches that ultimately complement each other. To avoid any risk of misunderstanding: there is no attempt to place all of these theories into one larger, all encompassing theory. In other words, at a meta-theoretical level, there is a unity of thought; however, at other levels, these theories remain connected but also separate. The goal of this paper is very different than debating for or against a direct bridge of traditional Russian cultural-historical and activity theory. At the same time, there are questions that need to be answered honestly within a historical context. Many of the leading professors of psychology today at Moscow State University take the position of a higher level of unity of historical thought within Russian psychology, certainly

discussing the contrasting opinions of various historical figures in this tradition. 1 The basic focus of this paper is to devote time to describing Russian activity theory from various perspectives, offered as a continuation of the celebration of the centennial of the birth of A. N. Leontiev, 2003.

Historical Views of Russian Psychology

One of the fundamental misunderstandings regarding the Russian psychological tradition, following Vygotsky's death, has revolved around debates arguing whether or not scholars of traditional Soviet activity theory (via the Kharkov School) were/are the true followers of Vygotsky. There are various facets of this debate: Some claim that traditional activity theory is a bridge and continuation of Vygotskian thought (to be referred to as cultural-historical theory), while others argue that it has abandoned Vygotsky's core issues. Certainly, there was a difference of focus between the Kharkov school and Vygotskian cultural-historical theory (as stated by D. Leontiev, E. Sokolova, and V. Zinchenko, 2002) , and it is for this reason that a review of the history of Soviet activity theory is necessary to better understand the past. Dmitry Alexeevitch Leontiev (2002), grandson of A. N. Leontiev , states that "activity theory is neither an alternative to cultural-historical theory, nor, strictly speaking its offspring. The same theoretical ideas and propositions appear as a part of cultural-historical theory, on the one hand, and as a part of activity theory, on the other" (p. 58). And, Alexei Alexeevitch Leontiev (2003), son of A. N. Leontiev, makes a claim of unity, stating that:

The so-called " Vygotsky School " consisted of Leontiev, Luria, Bozhovich, Galperin, Elkonin, P. Zinchenko and some other scholars. There exist two similar opinions on this school both having nothing in common with the historical truth. The first one: Vygotsky's school had nothing to do with Vygotsky himself, it was a group of psychologists having a quite different orientation. The second one: Part of the Kharkov group led by P. Zinchenko was the real " Vygotsky School " but Leontiev with his Moscovite colleagues was not. In my book about Vygotsky (1990), I tried to demonstrate the inner community and integrity of the entire Vygotskian school, and the continuity of Vygotsky's ideas in the views of his school. This continuity is very clearly seen in the recent book by A. N. Leontiev composed of Leontiev's manuscripts mostly from the late thirties. (pp. 3-4)

The basic historical narrative within Vygotskian theory has been guided by various related trends, including the thoughts of L. S. Vygotsky [cultural-historical theory], A. N. Leontiev [Russian activity theory], A. R. Luria [Russian/international neuropsychology, and cultural psychology],

American/international sociocultural theory, and European Activity Theory. There are many other branches of this school of thought such as European activity theory, and Central/Latin American sociocultural theory. The goal of this paper is to view the historical situation in Russia, in order to better grasp the meta-level of theory derived from the thoughts of Vygotsky, while comparing the differences in these various areas.

In general, there has not yet been a complete study of Soviet activity theory as it related to Marxism and the "socialist personality," and there are very few critical views regarding Soviet activity theory during the period between 1934-1966, and 1966-1991 in contemporary journals.

During the 1930s in Russia, there were many case histories that remind us that scholars such as M. M. Bakhtin and A. F. Losev were exiled during this period, G. G. Špet and E. D. Polivanov were arrested and shot, David Vygotsky was sent to his death in a Gulag in 1938, with many other similar examples. During the dark days of this period, A. R. Luria had his luggage packed, ready to be arrested (but never was), and "in 1930, circumstances forced Aleksei Nikolaevich to leave both the Academy of Communist Education and the All-Union State Institute of Communism" (A. A. Leont'ev, 1984, p. 14), as well as having to resign his position at the State Institute of Cinematography in 1930 (Kozulin, 1986b, p. 269). Regarding the fate of Vygotsky, van der Veer (2002) states that:

The publications also make clear that Vygotsky's position had become increasingly difficult by the time of his death. The posthumous criticism and additional circumstances (e.g., the search of his widow's house by the secret police and the confiscation of his books, the disappearance of his publications from libraries) strongly suggest that he would not have been able to continue his work after 1936. Moreover, had he lived on, he might have been arrested and perished in the Gulag Archipelago. It is probably that his death from tuberculosis in a way saved him from a more horrible death. (p. 8)

The political climate in Soviet Russia from the 1930s through the 1950s was threatened to various degrees by any real freedom of speech. Therefore, it will be almost impossible to separate the wishes, hopes, and dreams of the Kharkov school in implementing its research agenda, against the constraints of Soviet political realism, including the "correct" versions of Marxism. In fact, Marxism itself was forced upon people in a tremendously distorted way as a philosophy, and in 2001, V. Lektorsky stated his views about this approach in contemporary Russia :

Some ten to fifteen years ago all our students were still required to learn Marxist-Leninist philosophy, which claimed to have solved the deepest philosophical problems with the help of the only possible

"scientific" method. It is natural that an imposed philosophy, entirely lacking in the main features of genuine philosophy . . . provoked disgust among our intellectuals with respect not only to the philosophy taught at the time but to philosophy in general. Philosophy could not be popular at that time in Russia . (p. 2)

To return to the 1970s, critical opinions were finally being voiced regarding the unity of Vygotsky's theories and those of activity theory. "It was the other philosopher of psychology, Georgy Schedrovitsky, who, addressing the Colloquium of Vygotsky in 1979, challenged the myth of succession and suggested that Leontiev's theory substantially deviated from Vygotsky's program" (Kozulin, 1986b, p. 273). Another voice was that of V. Zinchenko (in Veresov, 1999, p. 110): "As for the relations between the cultural-historical theory and the activity-oriented approach, nowadays in Russian and Eastern literature there is some research which strongly casts doubt on any serious claim to speak of the unified school of 'Vygotsky-Leont'ev' (Brushlinsky & Polikarpov, 1990; Garai & Kocski, 1990; Kozulin, 1996, p. 99-122; Yaroshevsky, 1992, p. 92-98; Zinchenko & Wertsch, 1995, pp. 37-55), and even that some ideas of cultural-historical theory were lost in the theory of activity."

With the fall of communism in Russia , it is now time to begin a reflection of the history of Soviet/Russian psychology in an objective and concrete way, with newer parameters that will bring Vygotskian followers to a more complete understanding of the origins and history of Russian psychology as the basis of newer international theories. It is time to take a Vygotskian approach of unity and synthesis (without reductionism) in better understanding the fundamental aspects of activity theory, as the direct heir to Vygotsky.

Overview of Russian Activity Theory

G. V. Burmenskaia (1997) has stated that the traditional focus of Western psychology has been dualistic with two factors normally being analyzed: heredity and environment. Within Russian activity theory there has been an analysis of the activity of the child/adult within the social experience, which is then related to the mental development of the child/adult. Psychological aspects such as habits, conditioning, socialization do not take center stage within activity theory, with the concept of activity being positioned against the concept of passivity. There is, however, a focus on areas such as development, social mechanisms, mastery, image, motives, operations, and goals. It is clear that certain areas of traditional activity theory certainly cross reference with Vygotsky's method, and that the Kharkov school

and its followers based some of their ideas within Vygotsky's context. One of the ways to distinguish these two forms of understanding can be viewed from this perspective:

The main difference is that for cultural-historical psychology, the central problem was and remains the mediation of mind and consciousness. For the psychological theory of activity, the central problem was object-orientedness, in both external and internal mental activity. (Zinchenko, 1995, p. 41)

The Russian word for activity (*deyatelnost*) represents " . . . a coherent system of internal mental processes and external behavior and motivation that are combined and directed to achieve conscious goals" (Bednyi & Meister, 1997, p. 1). This definition stands in direct opposition to American behaviorism, where only the external is viewed; and it also stands in direct opposition to American cognitivism, where only the internal, innate is considered. Van IJzendoorn & van der Veer (1984, p. 37) state that traditional activity theory produced a fusion between seventeenth century Rationalism (i.e., focus on the subject), together with a focus on Marxism, and empiricism (i. e., focus on the object, where the subject is viewed as a *tabula rasa*). Hegel was the philosopher who wrote about activity [*Tätigkeit*] within labor as representing the unity of subject and object. "We must remember here that Hegel's system does not concern the activity of the individual but that of the world spirit, with the individual as its tool" (van IJzendoorn & van der Veer, 1984, p. 38). It is with that view in mind that traditional psychological activity theory in the Soviet Union/Russia can be understood within a Russian, not Western systems approach. "When we use the word system , we are not using the term as it is used in, say, systems analysis. We are using it in a dialectic, Marxist sense of system, as a system of development in which a state of the system is a moment in its movement " (A. A. Leontiev, 1998, p. 32). In beginning an interpretation of traditional activity theory it is important to grasp the nature of human needs and motives that help generate activity, and these aspects must then be differentiated. For example:

Needs may be transformed into motives only in those cases in which they acquire the capacity to induce an activity of a person to achieve a particular goal. Motives may derive not only from needs, but also from desire, intention, aspiration, strivings, when these induce our behavior toward particular goal achievement. The more important the goal, the more motivated the worker will be to attain it, and the more she will expend physical and psychological energy toward achieving the goal. As can be seen, one goal may occasion different motives. (Bednyi & Meister, 1997, p. 4)

Alexei Alexeevitch Leontiev and Dmitry Alexeevitch Leontiev state that Vygotsky was known for his ideas of consciousness and communication, and A. N. Leontiev was known for his ideas of life and activity (Rückriem, 2001, p. 308). Sometimes this dichotomy appears to reflect the logic of setting up a

strawman, until one comprehends the theoretical differences between Vygotsky and Leontiev. To better understand these differences it is important to begin with a general definition of activity:

Activity is the nonadditive, molar unit of life for the material, corporeal subject. In a narrower sense (i.e., on the psychological level) it is the unit of life that is mediated by mental reflection. The real function of this unit is to orient the subject in the world of objects. In other words, activity is not a reaction or aggregate of reactions, but a system with its own structure, its own internal transformations, and its own development. (A. N. Leont'ev, 1981, p. 46)

Leontiev's activity system indeed maintains its own structure and development, its own internal transformations, and it is a part of a system of social-interpersonal relations, although Leontiev has been criticized for not elaborating on the last point. Vari-Szilagy (1988) stated that "the 'social being' as the target and at the same time the active participant, and mediator of interpersonal relations and interactions did not stand in the front of his [A. N. Leontiev's] scientific interest" (p. 242). And Davydov, (1993) claimed that "there is also little doubt that an 'activity theory' developed by Vygotsky would have included semiotics and social interaction as a central component in a way that existing theory has as yet failed to do" (p. 50).

A. N. Leontiev's three forming elements are: the sensory fabric of meaning, sense, and perception (or of an image) (cf. Zinchenko, 1990, p. 25). Within the construct of Russian activity theory it is important to establish the difference between sense and meaning, used differently from Vygotsky's understanding of the same terms. "Vygotsky proposed that meaning be regarded as a unit of analysis of the mind, although he did invest it with features of sense. Similarly, Leont'ev proposed sense as such a unit, investing it with features of meaning" (Zinchenko, 1990, p. 39). According to A. A. Leontiev [Leont'ev] (1976), Vygotsky adapted the understanding of "sense" from F. Paulhan (1929), and in linguistic terms, Vygotsky related "meaning" to connotative signification, and "sense" to denotative signification (p. 82). Alexei Alexeevitch and Dmitry A. Leontiev (Rückriem, 2001) claim that A. N. Leontiev's understanding of "sense" was developed from his own views, stating that:

Genetisch ist Leont'evs Sinnbebriff gerade mit ihm verbunden, nicht mit Vygotskijs Sinnbegriff, der bei diesem rein semantischen Charakter trägt. [Viewed "genetically," Leontiev's concept of "sense" is definitely connected to Leontiev, not to Vygotsky's concept of "sense," which clearly maintains a semantic character (trans. D.R.)]. (p. 309)

One of the basic principles of traditional activity theory, as well as Vygotskian theory, is the system of self-regulation. Within such a system, goals and sub-goals can be formed that will include cognitive, executive, evaluative, and emotional aspects of activity (cf. Bednyi & Meister, 1997, p. 75). The integration of these aspects is combined with both external and internal processes that can lead to mastery. Within the approach of cultural-historical and activity theory, the construction of knowledge is understood from the abstract ["... an undeveloped unity of identical aspects of a representation of a thing or process" (Braun, 1991, p. 36)], to the concrete ["... a developed unity of diverse aspects of a representation of a thing or process" (Braun, 1991, p. 36)]. In short, "... abstractions must be made concrete by finding their real connections within the concrete, integral whole of learning/teaching within the societal process" (Tolman, 1999, p.77). Within the cultural-historical and activity theory traditions, knowledge is not constructed via rules of procedure, but rather by mastering the principles of methodology, which are different from methods and procedures. Experience, intuition, and intelligence are needed to establish a psychology with the individual understood as an active agent in personal and social change (cf. Tolman, 1999, p. 78).

A. N. Leontiev

S. L. Rubinshtein was the first to be concerned specifically with object-related activity as a subject for study in psychology. Later, A. N. Leont'ev further developed this approach to the subject matter of psychology. He believed that the integral activity of the subject, as an organic system in all its forms and types, in their reciprocation and transformation, was the subject matter of psychology. (Davydov, Zinchenko, and Talyzina, 1983, p. 34)

Rubinshtein was Leontiev's opponent in many areas, and his goal was to focus on the unity of consciousness and activity, attaching special importance to the concepts of activity, behavior, and deed.

S. L. Rubenshtein said . . . "Since activity is an interaction, a relationship between the subject of the activity and the surrounding world, activity itself cannot be declared to be leading and determining." . . . It is wrong, according to Rubinshtein, to "psychologize activity" and "define action and activity in terms of psychological criteria" (the relationship between motive and purpose or goal . . .). In reality, as should be clear to everyone, action and activity are, in practical terms, material processes that are not determined by psychological criteria...According to Rubinshtein, Leont'ev derived everything from

consciousness, from the mind of the subject; meanings were the material embodiment of personal sense, and goals were the material embodiment of motives. (A. A. Leont'ev, 1984, pp. 33-34)

The principle of objectiveness is an important element in understanding Leontiev's Russian activity theory, which opposes the introspectionist approach of subjectivity.

The principle of objectiveness is the key to the psychological theory of activity of A. N. Leont'ev and his followers. An object is not, however, understood as a thing that exists in itself and acts upon the subject. Thus, human activity is characterized not only by its objectiveness but also by its subjectiveness : the activity of the subject is always directed toward the transformation of an object that is able to satisfy some specific need. Activity brings together in a unity such opposing principles as object and subject. Activity has the following constituents: need ? motive ? conditions for achieving the goal (the unity between the goal and the conditions is a task), and correlated with these components: activity ? act ? operation. (Davydov, Zinchenko, and Talyzina, 1983, pp. 31-35)

At the same time, there is an important focus on the subjective, and it is claimed that:

[A]ctivity becomes an object for psychology not as a special "part" or "element," but as a fundamental, inherent function. It is the function of placing the subject in objective reality and transforming this into a subjective form. (A. N. Leont'ev in Wertsch, 1981, p. 52)

Another important principle already mentioned is the understanding of the use of activity in general, or its functionalism. It is important to also view the regressive element of functionalism within activity. For example, when an activity loses its motive it can become an action, and when an action loses its goal it can become an operation (cf. Davydov, 1985, p. 40). At this point, Leontiev linked his theory to the inner plane by stating that "from the aspect of the functional development of consciousness this change consists in the forming of inner psychological processes proper . . . The evolution of language and speech creates the premise for it". . . (A. N. Leontiev, 1959, p. 245).

Leontiev did not develop a linguistic system or any system of sense related to the higher mental functions (see Braun, 1991, p. 40), and his understanding of sense/meaning replaced a most difficult dialogue on the unique problems of describing the processes of internalization.

Moreover, when Leontiev made an attempt to outline the forms of human consciousness correspondent to activity, he chose to use the categories of meaning and sense rather than those of internalized operations (Kozulin, 1986b, p. 272).

Certainly, the aspect of sense has been developed in the last few years, with Boris Bratus (1981) introducing "the sense sphere of personality," and Vladimir Stolin (1983) focusing on "conflict sense." Elena Bassina (1986) described three levels of the sense sphere, and Fyodor Vasilyuk (1984/89) developed types of critical situations of sense that emerge in the "person-world" relationships (cf. D. Leontiev, 1994). Dmitry Leontiev (1994, pp.10-12) divided the development of sense into three stages: personal sense concept (genetic, functional, and structural); differentiation (clarification of sense); and integration (synthesis of the results of differentiation). D. Leontiev (1994, pp. 11-12) then distinguished between six sense structures: (1) personal sense as a component of a mental image; (2) actual sense set; (3) actual motive; (4) sense disposition; (5) sense construct; (6) personal value. Sense is used in this context in opposition to the foundationalist understanding, which is pre-given, and this wider understanding of sense can lead to "emergent learning" or "learning activity" in Davydov's context (see Kozulin, 1986a).

As well, it is interesting to note that Vygotsky focused on the construct of word meaning, directing his overall psychology/philosophy to an understanding of individual freedom of action, while Leontiev focused on sense, albeit within a [his] systems approach. However, both men were interested in the goal of free action for human beings, and both wrote about the role of self-regulation to that end.

The next aspect of activity theory to be mentioned is that of image, leading to one of the least developed areas of Leontiev's theory, which is motive.

What controls processes of activity is primarily the object itself and the objective world, and only secondarily its image as a subjective product of activity that fixes, stabilizes, and bears within itself an objective content. A conscious image is thus seen as an ideal measure objectified in activity; human consciousness participates in an essential way in the movement of activity...Thus, an action is not a component or a unity of activity: it is a "constituent" of activity, a moment of it. The concept of "activity consciousness" is introduced along with "image consciousness:" in general, conscious is defined as the

internal movement of its components, a movement that is part of the general movement of activity. . . Hence, the definition of an operation is somewhat different: it is the quality of an action, it is a constituent of an action. Among the problems that Aleksei Nikolaevich did not fully develop was that of motive: the concept itself had some internal inconsistencies in Leont'ev, although clearly his use of it was not contradictory . . . (A. A. Leont'ev, 1984, pp. 43-44)

One of the basic problems with the concept of motive was given by L. I. Bozhovich, who stated that "in the beginning of our inquiries, we followed A. N. Leontiev's criteria regarding needs and motives. But from the very beginning we had to change the definition of motive, because it was impossible for us to work with a term that always referred to objects of reality" (Gonzalez-Rey, 2002, p. 136).

The last aspect to be discussed here is that of goal, which is not viewed as a final result, "rather, it [the goal] is seen as an activity of goal formation, as a long process of exploring goals through actions of exploring their objective fulfillment" (Leont'ev, 1972, quoted in Zinchenko and Gordon, 1981, pp. 96-97).

In closing this analysis of some of the major points within Russian activity theory, the following will be offered as a conclusion:

The following components have been identified in activity: (1) the motive, the object that impels activity, that toward which the goal is directed; (2) the goal, or representation of the result of an action; and (3) the objective conditions under which the activity is carried out, among which the most important are the resources for reaching the goal. The goal, which is embedded in a specific set of conditions, comprises the task of activity. Consequently, an action must be viewed not only as a means of attaining a goal but also as the process of contact between subject and object. (Zinchenko and Gordon, 1981, pp. 96-97)

Problems and Possibilities in Leontiev's Theory

Although the Kharkov School criticized Vygotsky's thoughts as not being based in the real world, Russian activity theory developed along the lines of a systems approach, which has also been accused of not functioning in the real world. " Thus, an interplay between personal sense and socially fixated meaning,

rather than 'actual relations of reality,' was invoked by A. N. Leontiev when he encountered the problem of human consciousness"(Kozulin, 1986b, p. 272). As well, there was a fundamental problem involved in this approach with the lack of a theory of social (intersubjective) interaction. "A. N. Leontyev wrote about the significance of mediation in human activity. Nevertheless, in his theory the greatest attention was given to the relations between activity, actions, and operations; in other words, to the subjective, but not the intersubjective side of activity" (Lektorsky, 1992, p. 49). Dorothee Roer (cf. 1991, p. 26) also criticized Leontiev for having developed a theory that did not include spontaneity, irrational, or unconscious activity, viewing his activity theory as a concept of man who is asocial. She was also quick to point out that Leontiev did not discuss gender, sexuality, mother-child relationships, among other important social issues.

K. A. Abul'kanova-Slavaskaya (1982), from the Rubenshtein tradition, criticized Leontiev's theory in the following way:

The activity approach stresses the role of activity as a psychological category. As such it is defined by the relations "goal-motive-conditions-objects." However, no one has yet elucidated the differences in the methodological and theoretical levels of defining this category. Moreover, no one has demonstrated how, methodologically, the activity principle allows one to delimit just these relationships . . . The categories of activity theory are not invariant. Not all activity is positive or contributes to the positive growth of the individual. Only when the person is able to achieve a certain harmony in the overall system of activity is he able to acquire the possibility of improvement, which gives him greater freedom in accomplishing an activity and transforms the person into a subject with initiative. (pp. 14-25)

This short summary has not included many aspects of Leontiev's work, such as mediation, for example, but its purpose was to introduce a wider construction of activity theory, with its similarities and differences related to Vygotsky's approach.

A. A. Leontiev (2003) returns to a fundamental position of unity between Vygotsky and A. N. Leontiev by claiming that the stages of Vygotsky's thought evolved from cultural-historical theory to activity theory to personality theory, with the now famous quote:

Is there a psychology of activity? There is no such thing! And there never was such a thing either for Vygotsky or for Leontyev! There was "a psychology of activity , of consciousness , and of personality "...Unfortunately, contemporary psychology has to a large extent transformed itself from a science of the infinitely developing human being in an infinitely changing world, from a science of the action of the

free and creative personality, into a science of the activity of a limited and rigid consciousness. (A. A. Leontyev, 1992, p. 44)

For a number of years, activity theory indeed represented a divergence from Vygotsky's core intentions, although it was built upon Vygotsky's initial framework. A. A. Leontiev (born in 1936) has reestablished a direct link to the Vygotskian tradition of semiotics within psycholinguistics, and D. A. Leontiev (born in 1960) has established another direct link with his work on emotions, sense, and art/aesthetics. Boris Bratus (Head of General Psychology at Moscow State University) has expanded activity theory to include theories of sense, recovery from alcoholism, and lately, theories of spirituality within psychology. Vladimir Umrihin (General Psychology at Moscow State University) writes on the history of Russian psychology, and Elena Sokolova (General Psychology at Moscow State University) has worked with Dmitry Leontiev and others in publishing many books by A. N. Leontiev. Alexander Asmolov (Head of Psychology of Personality at Moscow State University) is connecting various theories to understanding the unity of human personality, and has established a core curriculum on the environment for schools in Russia . Boris El'konin and Galina Zuckerman, within the tradition of D. B. El'konin and V. V. Davydov, are involved in bringing a Russian Davydov/El'konin mathematics curriculum to the United States , where it is being adapted with success. N. F. Talyzina is currently working on a curriculum for mathematics and foreign languages within the tradition of Gal'perin, and she is one of the most translated psychologists in Russia . Also, Vitali Rubtsov is the director of the newly established Moscow University of Psychology and Education, where he is establishing a new department of Vygotskian Cultural-Historical theory, which will be working with international scholars. There are numerous examples of work in Russia that are forging a unity between areas that were traditionally separate, often because of the political situation.

A. R. Luria

Luria (as both a physician and psychologist) worked within the Vygotskian tradition by comprehending the relationship between psychology and neuropsychology, concomitantly locating many of these ideas within a theory of language. He created new thoughts within the theory of systemic dynamic localization of higher psychological functions .

By reconsidering the notion of "psychological function," which, in classical psychology, signified a primarily hereditary property of psyche, Luria substituted the notion of a "functional system," which allowed him to create a coherent theory of the cerebral mechanisms underlying psychological processes . . . According to this theory, each psychological function, as a complex functional system, is carried out by the brain as a unitary whole in which every cerebral structure has its own differentiated

role. Various links of the psychological system are situated in different cortical and subcortical structures, many of which can substitute for each other. (Homskaya, 2001, p. 98)

Based on the theories of Vygotsky, Luria situated his theories within the social first, the external conditions of life. An interesting principle described by Vygotsky, and discussed by Luria, is the extracortical organization of complex mental functions, "implying by this somewhat unusual term that all types of human conscious activity are always formed with the support of external auxiliary tools or aids" (Luria, 1973, p. 31).

In traditional Russian psychology, there is a focus on the entire individual personality within a more holographic structure, whereas in Western psychology one often speaks of personality as a collection of individual factors, not related to a whole construct, such as motivation, anxiety, empathy, tolerance to ambiguity, and risk taking. Russian psychology situates the individual personality within the importance of the social environment, human consciousness, language, concept development, and activity. Luria, for example, worked with twin boys, Liosha and Yura, who had not developed linguistically or mentally. Luria changed the overall learning environment of the boys, and in the end, the improvements made could be monitored when the boys were able to separate their actions from language, hence, internalization, where meaning was then relocated and transformed within a new type of action. Luria viewed the entire environment and personality of these boys in finding answers that would help them, not just partial aspects, through the use of partial tests. The contributing factor to this development was language. "In the course of further observations we were able to note cardinal improvements in the structure of the twins' mental life which we could only attribute to the influence of the one changed factor---the acquisition of a language system" (Luria & Yudovich, 1972, p. 107). In viewing such problems, Luria would isolate ". . . a leading factor (or factors) whose damage defines the character of the whole syndrome" (Homskaya, 2001, p. 106), and he would use the principles of displacement. "In the last analysis this meant that the children were now in a position to detach themselves from the immediate situation, to subordinate their activity to a verbally formulated project and so to stand in a new relation to this situation (Luria & Yudovich, 1972, p. 87). Luria viewed his patients as whole personalities, changing the social environment in order to enhance individual development, and one of his central concepts was to go beyond innate qualities to the extracortical functions of human potentiality.

It is also worth noting that A. R. Luria's research always developed Vygotsky's principle ideas of viewing higher mental functions within their development and regression. Throughout his entire life Luria continued to focus on the basic core tenets of Vygotsky's psychology-philosophy, namely language, cognition, and the dynamic localization of higher mental functions (cf. Umrikhin, 1997, p. 32).

The main principle that united Luria and Vygotsky was the idea that psychology had to study the highly regulated forms of conscious activity (higher psychological functions) that could be described and explained through their development in historical process [sic] and through the objective principles of brain function. Luria was true to this idea all his life. (Homskaya, 2001, p. 21)

Explanations are still needed regarding Luria's role related to A. N. Leontiev's Kharkov School and later traditional activity theory. Luria collaborated with A. N. Leontiev on many articles, particularly on one very important article in English defending Vygotsky against Jerry Fodor. There is a Lurian school of neuropsychology, which is quite different from activity theory. Certainly, Luria and Leontiev were both students of one teacher, and they remained collaborators; however, with varying and competitive viewpoints. Leontiev used Vygotsky's theories to then establish his own frame of reference, while Luria established his theoretical basis built upon Vygotsky's psychology-philosophy.

In comparing A. N. Leontiev and A. R. Luria, related to Vygotsky, T. V. Akhutina has stated the following:

A. N. Leontiev's activity theory was based on certain ideas of Vygotsky from his first, mostly philosophical period (before 1930), whereas A. R. Luria's work was devoted to the development of Vygotsky's ideas appearing later, primarily concerning the organization of systems and the dynamic localization of mental functions. This allowed Luria to reveal the inner structure (set of functional components) of such higher functions as speaking, speech comprehension, writing, and so on. Leontiev's theory of personality was more connected to Vygotsky's third period, although it was quite abstract and general. This theory describes certain phenomena as a hierarchy of motives within a person. (September 10, 2001 , E-mail correspondence)

In closing these thoughts on Luria, Oliver Sacks (1972) stated the following:

His [Luria's] earlier studies—on the development of language and mind in the child, on play, and on cross-cultural cognitive development—were, indeed, essentially "Vygotskian." But then, feeling that studies of the development of mental function needed to be supplemented by studies of their breakdown, Luria turned in the late 1930s to the classical method of clinical analysis, which was to occupy him for the remainder of his life . . . Through Luria's radically new concepts of and approaches to brain and mental functioning, new ways of understanding neurological processes were opened up . . . (pp.viii-ix)

L. S. Vygotsky

"Cultural-historical psychology is connected with what Solov'ev called the 'spiritual vertical,' what Pasternak called 'spiritual equipment,' what Mandel'shtam called 'the vertical section' of time, what Aleksandr Ukhtomskii and Bakhtin called the 'Chronotope,' and so forth" (Zinchenko, 1995, p. 41). Vygotsky's cultural-historical theory takes the highest explanatory principle of philosophical consciousness, expanding it both outwards and inwards beyond psychology to include art, aesthetics, poetry, theater, semiotics, Marxism, Spinozist philosophy, and defectology (the study of mental and physical handicaps), while synthesizing and unifying the relationship of these and other disciplines to the understanding of the unconscious/subconscious. Vygotsky's focus includes a dialectical (not dualistic) vision within Spinozist and Marxist monism. Working within the tradition of German/Russian philosophy and psychology, Vygotsky took consciousness (in the real world, not just in philosophy)---related to human personality---as his highest explanatory principle. The Vygotskian approach is not based on linear, non-dialectical, Cartesian dualism. His basic meta-psychological-philosophical focus is on the connection between the dialectic (representing the relative) and Spinozian monism (representing the hologram model). Holographic theory, in this context, is a meta-theoretical model that can be offered in today's frame of reference, where the whole is imprinted within the parts, with both aspects being necessary for growth and development at all levels. This is a reason why Vygotsky juxtaposed the whole together with units and not elements . Van der Veer (1997, p. 372) states that "the analysis into units breaks down a whole into the smallest possible component parts which retain the properties of the whole." On the other hand, when elements are broken down they lose the properties of the whole.

Within Vygotsky's method, there is a complete and constant connection between the individual and society that cannot be deconstructed into analyzable elements without losing the characteristics of the whole. It is the focus on the individual/social and internal/external that makes Vygotsky unique and holistic, not the reverse; however, this only makes sense when understanding that there is no culturally self-regulated individual without social structures emerging first. This point is very important, because Marxist philosophers have traditionally understood the "social" first, without a genuine focus on the individual, although Marxism was one of the philosophies attempting to place emphasis on individual activity via work, instead of focusing on idealized abstractions. Vygotsky's extension of the Marxist "method" recaptures various tenets of Marxism that are important for a future reevaluation of the cultural-historical framework, while simultaneously incorporating the essence of individual, internal mechanisms. Internalization is one of the core values of cultural-historical theory, not representing the external/internal as the same isomorphic phenomena (as in activity theory), nor replacing it with conscious (versus subconscious) elements of mastery and appropriation (as in sociocultural theory). Rather, internalization is the dynamic, asymmetrical process of incorporating the social component and

blending it with the mystery of conscious and subconscious cultural sign mediation within our own lives, eventually producing individual self-regulation. Vygotsky did not want to return to the problems of introspectionism (i.e., non-objectified understanding only), nor to the problems of empiricism (i.e., objectified understanding only). Since no one can step outside of his/her consciousness, areas of internalization/externalization become very important from the start. We will never understand the dynamics of human consciousness simply because we will never be able to stand outside of ourselves to objectify the real meaning of this term. Therefore, consciousness is to be understood via semiotic mediation and internal/external activity within a meta-psychological level.

With his dialectical vision and understanding of psychology during the 1920s and early 1930s, Vygotsky established a method that was both abstract and concrete, one that would amplify and reflect upon consciousness related to theories of European philosophers, such as Spinoza, Marx, and von Humboldt, among others. Vygotsky then selected thinking and speech as a second explanatory principle, used as instruments in reflecting human consciousness. This process always includes a dialectical approach of positioning varying structures within opposite poles, while simultaneously including a holistic structure, in this case, consciousness (related to the holographic nature of the human personality). Vygotsky examined many trajectories of functional capacities (via their interrelationships), all of which maintain opposite points of origin. This process thus explains thinking/speech and growth from a historical perspective, with each trajectory including change as a common dominator. It is precisely the trajectory of development that Vygotsky understood as growth, which takes place within the development of thinking and speech, or variations on vocalized speech, such as sign language or Braille. For example, the origins of thought/thinking include the disposition of a pre-linguistic structure, whereas the origins of speech maintain the disposition of a pre-intellectual structure. It is through the dialectical process of "engagements" and "separations" of opposite poles of growth that development can occur. However, there must be a mature concept formation in place to construct and create meaningful generalizations. In order to understand psychology/philosophy from the perspective of a dialectical-monistic vision, Vygotsky needed a common denominator (both abstract and concrete) in order to measure thinking and speech that would reflect and mediate consciousness. It was here that Vygotsky discovered the power of word meaning as the unit of analysis (of thinking and speech) , and the rest is history.

Conclusions

In closing these thoughts, it is hoped that a newer, more complex unity between Vygotsky-Leontiev-Luria will be established in future, with a new spirit of synthesis. All three men were knowledgeable and interested in areas as diverse as philosophy, linguistics, aesthetics and arts, film, child development, foreign languages, defectology, among others. Their work was established within a Marxist framework, and the roots of these theories cannot be understood if severed from such ties. As well, there was a

view to the development of the human personality in its totality, focusing on the fusion of the ideal and real.

It is hoped that there will be more international unity of Vygotsky-Luria-Leontiev in future when establishing a newer non-classical psychology; and, it is hoped that such an approach will aim at the theoretical and practical unity of research and life, remembering that the theories of the past were not only established by Vygotsky-Luria-Leontiev, but that these men also lived their own theories throughout their lives. V. V. Davydov (1993, p. 53) once stated: "This is not a struggle about ideas from the past. We must, here and now, shape our inheritance from the past in such a way that it can also serve us in the future."

The word "traditional" will be used when referring to activity theory during the Soviet period of history in Russia until 1991.

"As a general conclusion, the Kharkovites came to believe that the structure of cognitive processes more or less repeats the structure of external operations, . . . The major theoretical disagreement between the Kharkovites' position and Vygotsky's was epitomized by Zinchenko's (1939/1984) statement that 'social development cannot be reduced to the history of the development of culture...' " (Kozulin, 1986b, pp. 270-271).

The various spellings of Leontiev in the English transliteration have not been changed, such as: Leontiev, Leontyev, and Leont'ev. All of these spellings refer to the same person.

See V. Umrikhin (1997) for a historical summary of Soviet activity theory.

The authors listed in Veresov (1999) are not listed in the reference section.

"A central feature of Soviet social and behavioral sciences in the 1960s was their interdisciplinary development. A new brand of scientific epistemology emerged at the crossroads of logic, philosophy of

science, and structuralism in biology, psychology, and linguistics, acquiring the name of systems research. This approach, based largely on the general systems theory of the Austro-American Ludwig von Bertalanffy, attempted to overcome the atomistic notions still dominating most of the disciplines by presenting such complex phenomena as behavior as structures of mutually related elements whose net effect is organic and holistic rather than mechanistic" (Kozulin, 1986a, p.30).

The Davydov/El'konin model is being adapted and implemented in the United States , supported by Best Practices in Education (Gail Richardson), University of Hawaii (Barbara Dougherty). For information, contact Galina Zuckerman: > galina_zuckerman@hotmail.com<. For information on Gal'perin's framework, contact Nina Talyzina: >university@mail.ru<. Vitali Rubtscov can be reached at: vvavr@cityline.ru.

Dr. Kiyoshi Amano wrote per e-mail on August 7, 2001 : "I think that A. R. Luria's position is very near to Vygotsky's in the sense that he regards language and speech (meaning and sense) as the most important basis for the formation of human specific conscious activity and consciousness. But I did not see any of his papers or books which make clear his position about the problems of the critique by A. N. Leontiev to Vygotsky's theory, except that A. R. Luria seems to have also accepted A. N. Leontiev's position."

Leontiev, A. N., & Luria, A. R. (1972). Some notes concerning Dr. Fodor's' reflections on L. S. Vygotsky's thought and language. *Cognition*, 1 , 311-316.

"In 1931-1932 the Kharkov School came into being. The inner disposition in L. S. Vygotsky's School was dramatic. There was a confrontation of two lines [of thought] that also remained in the future. My [A. N. Leontiev] line [of thought] consisted in returning to the basic theses and developing them in a new direction, in studying practical intellect (subject-oriented action)" [trans. D. R.]. From the Leontiev archives in Moscow. These notes were taken by A. A. Leontiev during the spring of 1976, interviewing his father about the period from 1921-1935. During the late 1970s, A. A. Leontiev would sit down with his father once a week, on Saturdays, in a formal interview session. Only notes were taken.

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