

### Aleksei N. Leontiev (1903–1979)

A. N. Leontiev was a member of what has been termed the “troika,” along with Lev Vygotsky (1896–1934) and Alexander Luria (1902–1977) with whom he collaborated on the development of a Marxist psychology from 1924 to 1930. Under Vygotsky’s leadership they established the *cultural-historical approach* to psychology.

In his independent work, Leontiev is known for *activity theory*. In developing activity theory, Leontiev was faced with the traditional *binomial two-part scheme* and the *postulate of immediacy*. According to the *binomial (two-part) scheme* an effect on a subject’s receptor systems (senses) produces responses (either subjective or objective) caused by the effect. The *postulate of immediacy* was the proposition that external irritants, by affecting psyche, unambiguously determine its manifestations and related reactions in the subject ( $S \rightarrow R$ ). Immediate experience in this refers to a psychological process that seems to have no specific psychic antecedent (produced from within).

The problem with the two-part scheme was that it excluded objective activity, the process by which active subjects make connections with the real world. There were two choices: 1) retain two-part scheme and its postulate of immediacy, i.e., nothing intercedes between stimulus and response; or 2) introduce a third component that mediates the other two, e.g., mediating variables (intervening variables). Leontiev did not advocate the use of intervening, mediating variables:

Introducing the concept of intervening variables no doubt enriches the analysis of behavior, but it does not eliminate the postulate of immediacy. Although the variables are intervening, they are so only in the sense of internal states of the subject itself. (Leontiev, 1974–1975, p. 7).

They were merely sequential parts of a mechanistic, deterministic chain of S–R connections.

The solution was to remove the two-part scheme and introduce *activity* as that which mediates subject and object and makes a unit of the two. Mediation is not used in the sense of intervening but rather of “relating.” Human activity in the objective world reconciles the opposition of organism and environment. Subject and object were not lost; they were no longer to be considered separate and independent. Reactivity, as in classical conditioning, is replaced by activeness and purposefulness.

### *Activity Defined*

Activity is a molar, nonadditive unit of a material subject's life. In a narrower and more psychological sense, activity is a unit of life mediated by mental reflection whose real function is to orient the subject to the world of objects. Activity is thus not a reaction or a totality of reactions, but rather a system possessing structure, inner transformations, conversions, and development. (Leontiev, 1974–1975, p. 10)

To be molar, in contrast to molecular, is to be a large segment of the continuous stream of behavior that is united in the service that the movements are directed toward some end or purpose. Being nonadditive, it means that activity is continuous and not divisible into molecular segments that add together like separate S–R sequences—an ongoing process. What divisions are made are intellectual, conceptual. Activity is thus an abstraction (an interpretation) of an ongoing process: life-in-the-world. As a unit, it is mediated (includes within it) by mental reflection, which orients the subject to the world of objects. Mental reflection is the internalization of the nature, properties, and processes of the world and “mind is a property of living, highly organized material bodies that consists in their ability to reflect through their states the reality around them, which exists independently of them” (Leontiev, 1981, p. 18). Activity subsumes mental reflection, i.e., places it in a more comprehensive unit (active engagement).

activity 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. (Leontiev, 1981, pp. 52–53)

### *Activity a System*

Activity is a system not a reaction or a totality of reactions, it is a system—a unified process connecting subject and object, person and environment. It has a structure—definite patterns of organization. There are inner transformations, conversions, and development. Once formed it is not unchanging. New experiences and new needs introduce changes. Since the object can be represented by its internalized image, the object need not be physically present in objective form in order to guide activity, e.g., knowledge of an upcoming exam is enough to

guide study (I hope for your sake). Taking a trip that is guided by the endpoint (as experienced in a brochure or word of mouth).

### *Object of Activity*

The object of activity takes two forms. In the preliminary, first form is the object as independent of the subject. The subject's activity is subordinate to it and is transformed by it. One has to learn about objective events. Charles Tolman used to offer the example of elasticity. You cannot learn of elastic properties without stretching a band. Second, the object is internalized in the form of an image as a result of active engagement with the object. An object, once internalized, need not be present physically to guide an activity. The need to bind things can bring the thought of an elastic to mind.

### *Structure of Activity*

Three structural units have been identified and each preserves the requirements of a unit of analysis, i.e., subject-object unity. *Activity* is the most global, structural unit governed by its *motive*. A person who is actively engaged in some behavior has a purpose to the behavior (a motive)—it is directed toward some end. Second is *action* which is governed by its *goal*. Action is a subcomponent of an activity. Each action is part of an unbroken series of interconnected actions that, collectively, comprise the series of events that lead to the overall motive of the activity. I once hiked to Twin Falls in the Canadian Rockies with the motive of exercise and beautiful scenery. The actions included packing lunch and water with the goal of sufficient supplies. I put on hiking boots: goal = protect feet and legs. You can work out the rest. Third were *operation* which is governed by real *conditions* of the environment. What food did I have at hand for lunch? What kind of footwear did I own? Operation is how the action takes actual form, how it is carried out, and that is determined by the environmental conditions which prevail.

The analysis by which they are identified is not a process of dismembering living activity into separate elements, but of revealing the relations which characterize that activity. (Leontiev, 1977, p. 186)

*Activity* is the overall purpose of a series of behavioral processes; actions are more specific sub-processes whose *goals* continue the progression toward the motive. *Operation* is the actual, physical performance that achieves the goal in accordance with the conditions imposed by the environment.

Wertsch (1981) contended that Western psychologists have focused their research efforts on factors that are at the level of operations. What is missed is the underlying goal—the purposiveness rather than the reactivity of behavior. While the nature of the structural unit does not change, in that each preserves the unity of subject and object, in moving from *activity* to *operation*, there is a move from the study of the overall purpose of an activity down to the specifics of satisfying the activity. Typing is at the level of operations but why one is typing, for what purpose, is lacking if one simply examines that as a reaction to the presence of a typewriter or computer.

One and the same action can also be cognized differently depending upon the activity within which it is embedded. On the surface they appear the same but in actuality, because of their underlying motive, they are quite different. Are you just typing or are you typing a letter to a friend or typing a course paper (very different motives)? There is a great deal more to the theory but this gives you a sense of how Leontiev was developing an alternative psychology to stimulus–response reactivity and anti-mentalism. Let me end here with some words from Leontiev on personality:

The concept of personality, just like the concept of the individual, is expressed by the wholeness of the subject's life; personality does not consist of little pieces, it is not a "cluster of polyps"; personality represents a whole formation of a special type.

Personality is not a whole conditioned genotypically: one is not born a personality, one becomes a personality. For this reason we do not speak either of a personality of a newborn or of a personality of an infant although traits of individuality appear at early stages of ontogenesis no less sharply than at much later stages of growth. Personality is a relatively late product of social-historical and ontogenetic development of man.

(Leontiev, 1978, p. 107)

## References

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Various books and papers of Leontyev are available at:

<http://marxists.anu.edu.au/archive/leontev/>