Cultural-Historical Activity Theory in the Framework of the “Functional Paradigm”

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The aim of the paper is to highlight the peculiarity of the present state of the Cultural-historical activity theory (CHAT) in psychology, as compared to previous periods of its development in the general context of theory development in psychology. The author sees this peculiarity in that CHAT exemplifies an anti-Aristotelian paradigm which suggests that the actual functioning of living systems cannot be fully deduced from a priori existing morphological and psychological structures. This emphasis unites CHAT with two other influential approaches to the explanation of human conduct, existentialism and the systems approach to autoregulating systems, which can be found from early cybernetics to synergetics and the theory of complexity of our own day. Although they each occupied marginal positions in human sciences in the middle of the last century, all three approaches now find themselves articulating the same message in different words; basic similarities between them allow us to speak of their confluence into what may be called the functional paradigm. The functional paradigm states the primacy of the process, actual functioning, activity, or existence, the absoluteness of uncertainty and changeability, and thus seems to be the most relevant paradigm for the challenges of our times.

Keywords: Cultural-historical activity theory (CHAT), regulation, self-regulation, autoregulation, cybernetics, existentialism, agency.

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Introduction

The conceptual foundations and thesaurus of the Cultural-historical activity theory (CHAT) have been rather stable for decades; nevertheless, the foci of theoretical and empirical research shifted through its history from one to another problem and concept.

Vygotsky’s emphasis in the late 1920s—1930s was on the relation between individual mind and culture, on the issues of social and cultural mechanisms of shaping the human mind, on the problems of social and genetic psychology. Alexey N. Leontiev’s emphasis, during the early stages of the construction of activity theory in the late 1930s-1950s, was on the relation between activity and consciousness, on the issues of emerging consciousness and mind at large as a phenomenon of life, and on the problems of genetic, comparative and educational psychology. At the next stage, in the late 1950s—1970s, the emphasis shifted to the relations between activity, action, and operation, to the issues of activity structure and actual genesis, its executive mechanisms, to the problems of general and cognitive psychology.

Since the late 1970s a new shift of emphasis became visible, a shift toward the relations between activity and personality, to the issues of activity regulation and self-regulation and its ontogenetic development. Mikhail Kotik [22] and Oleg Tikhomirov [37] were among the first authors who introduced the ideas of regulation and self-regulation of object-related activity, including the thinking activity, to the context of activity theory; both authors stressed the role of personal meanings in regulatory processes. Somewhat later, Vyacheslav Ivannikov [18] launched his studies of voluntary activity regulation and a large group of authors ([2; 4; 7; 35; 36; 38]) contributed to the development of the theory of regulatory function of personal meanings and meaning formations (see [24; 25] for details).

Probably the first scholar to have noticed this last shift and to have given it a conceptual shape was Bluma Zeigarnik, who published a paper entitled “Mediation and self-regulation in norm and pathology,” in which she characterized these two concepts as central ones for the given period of the activity theory approach ([43]; see
being on tape. Russian philosopher Pavel Florensky wrote about a hundred years ago that both human personality and human activity emerge through overcoming the logical law of identity, a being equal to itself [13, p. 80]. That means that personality emerges at the point at which a person stops being equal to themselves, stops being predictable and manageable.

True, the challenge of the 20th century was making sense of human psychological consistency, but the challenge and demand of the 21st century is making sense of human psychological change. The essentialist paradigm is no longer satisfactory and this became clear even by the middle of the last century. Gordon Allport [1] said that “personality is less a finished product than a transitive process” (p. 19). George Kelly [20] introduced the concept of ontological acceleration, meaning by this that a human being changes, and this refers not only to ontogenetic or functional development but what changes is rather the human being as the species; our theories describe the human being of yesterday rather than the human being of today. Erich Fromm [15], having analyzed the problem of human nature, concluded that it consisted of the lack of any fixed nature. Recently Alexander Asmolov [2] stated that the target of psychology of our days is studying the changing person in the changing world (p. 365).

What can be the essence of this new paradigm, which is coming to replace the essentialist one? Jean-Paul Sartre phrased it in terms of his famous statement, “existence precedes essence” [34]. This means that there are no stable essences which would help to explain what is actually going on in the course of our existence. Alexey N. Leontiev [23] expressed the same idea in a somewhat different way, saying that all mental structures emerge and take shape through intentional activity. This statement had multiple empirical proofs. One more phrasing of the same fundamental idea belongs to the prominent physiologist, Nikolai Bernstein [5], who summarized his studies of human physiology, which he called the physiology of activity, in this way: “the task gives birth to the organ”.

All three approaches remained rather marginal through the 20th century; however, they seem to be most relevant for the new challenges of our century. More than this, the underlying principle of all three approaches is essentially the same, and it constitutes the most contemporary paradigm which may be called the functional explanatory paradigm (see [26]). It says: an individual resides in a permanent stream of changing relations to the world. These relations precede any sustainable mental structures of mind and personality and explain their emergence and change.

**The functional explanatory paradigm**

The word “functional” in this context was borrowed from Norbert Wiener [42], who used it to oppose his approach to behaviorism. Another prominent author, Ilya Prigogine (see [30]), preferred the word “proces-sual” for the same idea. Functional, or processual views, are being thus opposed to essentialist, reactive,
Autoregulation as an explanatory framework

The regulated process we are dealing with in psychology is activity that bridges an individual to the world. This embraces not only observable behavior but also mental activity without directly externalized products. In the most general formulation, life as the process developing between a living creature and the environment, or the world, should correspond to the way the creature exists and to the way the world exists. Vasily Davydov [11] called this double imperative the bilateral plasticity of human activity; in a sense, Freud’s [14] famous distinction between the pleasure principle and the reality principle refers to the same bilaterality. One is to ‘fit,’ both to reality and to oneself. If our activity fits to the world in line with the reality principle, we are realistic; if not, we are narcissists. If what we do corresponds to what we are, the activity is authentic, and if it does not, it is alienated (see also [28]).

The key idea of the autoregulation principle is that of the circular process which is directed by the perceived divergence between the desired and the actual state of affairs. Nikolai Bernstein was the first scholar who published this circular model as early as in 1929. Arguing with Ivan Pavlov’s reflex arc model, Bernstein introduced the idea of feedback reflecting the divergence between the actual and the desired, and proposed the model of a reflex circle instead of reflex arc (see [5]). His colleague, physiologist Pyotr Anokhin, published a competing, though essentially similar model of a functional system in 1934. However, the works of both scholars became known worldwide much later, and it is Norbert Wiener who is usually referred to as the pioneer of the regulation paradigm (see [31]).

The structure of an autoregulated process, as suggested in all of the above-mentioned models, must include the following functional elements: 1. The process to be regulated. 2. The criteria of the desired. 3. The monitoring subsystem, providing the feedback on the actual course of the process. 4. The matching subsystem that evaluates the process of fitting to the criteria and eventually calls for corrections. 5. The correcting subsystem, implementing corrections of the process for better fitting the criteria. Autoregulation thus can be defined as the functional capacity of moving from less desirable outcomes to more desirable ones through ongoing monitoring and correcting of the current activity. The explanatory principle of regulation provides an alternative to the principle of linear determinism and the essentialist paradigm depicted above, which presumes that human activity is determined by the multiplication of stable internal (dispositional) and external (environmental) forces.

Jan Valtsiner [39] reasonably argued for the term autoregulation instead of self-regulation, for the former does not imply a reference to an essence like the self. Often self-regulation is conceived as synonymous to self-control over impulses, forceful imposing superordinate regulatory principles upon oneself. A broader meaning of the term seems however more insightful. The process may be autoregulated if monitoring and corrections are provided by the same system and the results of monitoring automatically cause necessary correcting actions. Autoregulation is an inalienable property of all living creatures, as well as of quasi-living artificial systems directed by goals or other superordinate criteria of the desirable. It suggests that the system strives to keep its functioning up to these criteria, and makes necessary corrections when the process diverges from the criteria.
Personality development as the growing self-mastery: The person as autoregulated agent

An important aspect of the psychological explanation of autoregulation in terms of the functional paradigm is viewing personality development as progressive autoregulation [16], from the most basic capacity to control immediate impulses, whether bodily or behavioral, to the privilege of autodetermination, that is, being the origins of one’s action and decisions, capable of choosing the course of conduct based not only on situational feedback but also on field-independent higher motivations and value orientations [12; 33], including the capacity to reconstruct the highest regulatory instances at one’s own discretion [17].

The dichotomy of being autoregulated vs. being driven, conditioned, programmed, or a zombie has been articulated as long ago as in 1892 by Russian philosopher Vasily Rozanov: “Human life may be twofold: either unconscious, or conscious. By the former I mean life controlled by causes, by the latter life controlled by a goal” [32, p. 21]. These two regimes of living however are not just a matter of individual differences, but also a matter of intraindividual temporal fluctuations — whether we are determined and driven by “tapes”, or, whether we are directed to some goal and navigate the way toward it, staying alive, that is, capable of any change. “We can always oppose our own unpredictability to any surrounding uncertainty” (Alexander Asmolov, personal communication, 2019).

Rozanov’s philosophical statement, as well as Bugental’s metaphor of tapes vs. living, has multiple analogues in psychological theories. A number of recent dual-system psychological models distinguish two types of human regulatory systems, one of them being unconscious and automatic and the other deliberate and self-controlled (e.g., “hot” and “cool” systems in [29]; “reflexive” and “reflective” systems in [9; 10]; “fast” and “slow” systems in [19]). Essentially, all of them are reincarnations of what Vygotsky offered in the early 1930s in terms of the mechanisms of autoregulation in terms of the functional paradigm as a generalized approach to the explanation of living systems, specifically human beings, in their interaction with the environment (the world); the functional paradigm states the primacy of the process, actual functioning, activity, or existence, the absoluteness of uncertainty and changeability, and thus seems to be the most relevant paradigm for the challenges of our times; (3) individual differences and developmental succession as they refer to human psychological characteristics reflect the differences and progression of the mechanisms of autoregulation.

This paper presents only a brief argument in the most general heuristic formulation. Its explication and empirical support require more than a single study; its initial elaboration has been published in [27]. I hope that it will help in finding a relevant place for cultural-historical activity theory in the psychology of our days.

The higher levels of organization in humans are thus deliberate and self-controlled ones. The development of agency and psychological mechanisms of self-determination refers to the emerging self-regulatory capacities. Humans widely vary in this capacity of self-governance or mastery over their own lives. An individual’s potential for autoregulation has been conceptualized in terms of personality potential [27], which refers to the system of stable personality variables that account for the successful autoregulation in various domains of living, i.e., seeking and maintaining the way of acting that leads to the desired outcomes and changing the way of acting that diverges from them. The basic level of its development suggests acquiring the capacity of controlling one’s impulses and following non-biological urges; further development suggests the developmental transition from being determined to self-determination, from the competition of biological and social drives to the self-determined person investing their efforts into one’s own development. A mature human being becomes the agent of one’s own development above and beyond universal biological mechanisms and social institutions supporting this development and giving it a direction.

Conclusion

The message of the paper suggested that (1) cultural-historical activity theory at the present stage of its development is focused primarily on the issues of activity regulation and self-regulation (autoregulation); (2) its main tenet essentially coincides with those of existentialism and cybernetics and all three may be combined into the functional paradigm as a generalized approach to the explanation of living systems, specifically human beings, in their interaction with the environment (the world); the functional paradigm states the primacy of the process, actual functioning, activity, or existence, the absoluteness of uncertainty and changeability, and thus seems to be the most relevant paradigm for the challenges of our times; (3) individual differences and developmental succession as they refer to human psychological characteristics reflect the differences and progression of the mechanisms of autoregulation.

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Культурно-историческая психология деятельности в контексте «функциональной парадигмы»

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Цель данной статьи состоит в раскрытии специфики нынешнего состояния культурно-исторической теории деятельности (КИТД) в психологии по сравнению с предыдущими этапами ее развития в общем контексте развития психологической теории. Автор усматривает эту специфику в том, что КИТД воплощает в себе анти-аристотелевскую парадигму, исходящую из того, что актуальное функционирование живых систем не может быть полностью выведено из существующих априори морфологических и психологических структур. Такой подход объединяет КИТД с двумя другими влиятельными подходами к объяснению человеческого поведения, экзистенциализмом и системным подходом к саморегулируемым системам от ранней кибернетики до сегодняшней синергетики и теории сложности. Занимая маргинальное положение в науках о человеке середины прошлого века, сейчас все три подхода оказываются выражающими разными словами один и тот же тезис: фундаментальное сходство между ними позволяет говорить об их сближении в то, что может быть названо функциональной парадигмой. Функциональная парадигма говорит о первичности процесса, актуального функционирования, деятельности, или существования, об абсолютности неопределенности и изменчивости, и оказывается наиболее релевантной вызовам нашего времени.

Ключевые слова: культурно-историческая теория деятельности (КИТД), регуляция, саморегуляция, кибернетика, экзистенциализм, субъектность.

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