

Vygotsky's Solution to Psychology's Crisis

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ABSTRACT

In the 1920s-1930s, Vygotsky diagnosed a deep crisis in psychology. Psychology stood divided into two camps: on one hand, there were reductions of mind to simple causes, and other one only depicted static structures and both ignored real-life human activity. According to Vygotsky, psychology had become detached from practice. The solution he proposed was his cultural-historical theory. He suggested that humans have a biological basis for simple mental processes, while the more complex ones--including logic and deliberate attention--are constructed socially with the help of tools such as language. Learning begins in society, then within the person himself. In rooting psychology in dialectical materialism and concrete activity, Vygotsky offered an integrative scheme. He helped turn psychology away from abstract philosophy into a social science that would influence the world of education, culture, development, and society.

KEYWORDS

Vygotsky; Crisis in psychology; Cultural-historical theory; Higher mental functions; Social development

1 Vygotsky's outlook on Crisis in Psychology

Vygotsky's progressive outlook in the Soviet context of the 1920-1930s led him to make a powerful argument about the state of affairs prevailing within the dominant traditional psychology of his day. In *The Historical Significance of the Crisis in Psychology: A Methodological Investigation* (1997), Vygotsky vigorously argued that methodologies in psychology were too closely tied to philosophies like idealism, materialism and dualism which led to a split of the discipline in two mutually separated (and even opposed) theoretical branches: causal psychology and relational psychology. The first wanted to explain all psychology in terms of mechanistic causality-stimulus-response correlations that would reduce the human mind into a series of linear cause-effect relations; the second one concentrated only on the static description of psychological structures without paying attention to the dynamics and the generative process that produces conscious activity. This segmentation not only led to confusion and disorder in the theory framework of psychology, but also put psychologists into a dilemma of "not seeing the whole forest for the trees", which makes the construction of an explanatory, unifying disciplinary structure impossible. Vygotsky also noted that a deeper reason for this crisis was the extreme separation between psychological science and social life, with many mainstream psychologists at the time expressing disdain for practical applications of psychology, rejecting it as an "empire of ideas"--in which the real world served only to confirm philosophical conjectures, not as essential sources of knowledge generation. This bias contributed to the ever greater abstruseness and isolation of psychology: psychologists busied themselves developing complex theories in laboratories, yet did not pay much attention to the actual psychological needs, behavioral characteristics of humans in their daily lives. Vygotsky warned that unless we break away from this "theory-first" shackle, the "human science" would lose all meaning, become a vacuous pseudo-science alienated from life.

Vygotsky's critique was not only a sharp diagnosis of the psychological crisis of his times, but also reflected his grand vision on how the discipline would evolve in the future. Vygotsky argued that psychology should go back to its "practical roots", studying human activity in particular sociocultural settings to understand the nature of consciousness. This line of thinking eventually crystallized into his seminal cultural-historical theory that offered a fresh route to the synthesis and development of psychology. Vygotsky's criticism of traditional psychology does not stop at diagnosing the crisis but sees it as an essential moment within the change of paradigms for psychology. It was his insight, therefore, that the dissection and alienation of classical psychology arose fundamentally out of the rigidity of discipline-bound compartmentalization and methodological monism, falling either on the side of the reductive determinism of mechanistic materialism or the vacuous abstractions of idealism. In order to correct this, he worked on developing a methodological apparatus for an emergent psychology integrating several viewpoints, and suggested the development of a middle-level science similar in nature to historical materialism (McLellan, 1973). Dialectical materialism-based, its goal was breaking down of boundaries between the natural and the social science, shed light on these underlying relationships among mental processes and sociocultural-historical development, and eventually accomplish the theoretical task of "the explanation of individual psychology in a sociocultural-historical perspective".

2 Human Mental Functions

Within this methodological framework, Vygotsky systematically elaborated the cultural-historical theory of psychological development, explicitly distinguishing two distinct forms of human mental functions for the first time: 1) Lower mental processes: Those evolved abilities involving sensing the world, reflexive attention, feelings and emotions are common to both human beings and other living organisms, and these functions are mainly limited by the biological

maturity law and are based upon people's personal experience in dealing directly with their environment; 2) Higher mental functions: Mental abilities (e.g., logic memory) that are socioculturally constructed through the mediation of language and symbols, abstract thinking, conscious concentration of attention and self-control. They are specific for man and they cannot appear automatically; instead, they develop themselves in the process of internalizing what they've learned. Vygotsky furthermore explained the theory of social genesis that describes how higher mental functions develop. In children's psychological development, every higher psychological process originates on the level of the individual not as an isolated action but rather as a generalized and indirect social activity mediated through relations with other people. Via the mediation of language and signs, inter-subjectivities become internalized to autonomous, individual cognitive processes (Lantolf and Poehner, 2014; Lantolf et al., 2018). For example, the capacity of logical reasoning in a child is not innate, but it is born from conversations with adults or other peers where the child comes to learn socioculturally established logic rules (e.g. rules; causes-and-effects, categories), thus the child externalized this collective knowledge as individual internal representations. It is not an automatic adoption of cultural knowledge, it is instead an iterative phase: people participate directly and concretely in productive work, shifting the focus of mental processes from "working together with other people" to "thinking logically on my own," and finally, reaching the next level of psychological potential qualitatively. Vygotsky went beyond standard psychology, in which the mind is considered an individual, internal structure. Instead, by placing psychological development within the broader context of sociocultural factors, it provided a revolutionary view into what makes up the mind of man, and established a basic theoretical basis from which further study in educational psychology could be pursued; developmental psychology, and cultural psychology. The publication of Charles Darwin's *On the Origin of Species* (1859), however, radically changed that course. Darwin's theory of evolution argued for an essential continuity between humans and all other animals, challenging the long held anthropocentric distinction between man and all other animals, providing a naturalistic basis to view mankind's existence within an evolutionary continuum, instead of an unusual supernatural event. Meanwhile, the publication in 1860 of the first volume of *Elements of Psychophysics* by Gustav Fechner proposed an elaborate, highly mathematical approach to measure the relation between stimulus intensity on one hand, and sensation or perceptual quality on the other. Through the formulation of mathematical rules that described this conversion from physical input to mental output, Fechner paved the way for psychology to evolve into a science of measurements rather than speculation in philosophy. Ivan Sechenov's *Reflexes of the Brain* (1863) brought animal physiology even closer to human psychology, as he argued that all neural action, human thought and behaviour could be understood in terms of reflex mechanisms, offering an ontological foundation that links empirical investigation of non-human behaviour to philosophy of mind. Darwin's writings together with those by Fechner and Sechenov became the pillars of psychology in the last quarter of the nineteenth century. They broke down philosophical barriers that restricted inquiry into human nature, provided a set of empirically based and methodologically valid practices for science in general, and set the stage for psychology to become an autonomous, discipline-based content area.

In the beginning of 20th century, Russian psychology was characterized with high level of ideological confrontation, which all had their limitations by explaining only a limited set of phenomena. The first substantial organizational and theoretical shift in post-revolutionary psychology was initiated by Kornilov in 1923. In this context, Chelpanov argued that Marxism was of extremely limited utility in terms of psychology: it could explain the social organization of consciousness but not the inner nature of individual consciousness. In response, Kornilov contested the idealist foundations of Chelpanov's psychology, and attempted to incorporate all branches of psychology into one overall Marxist theory.

3 An Integrated Approach Combining "Natural Science" and the Socio-Cultural Aspects

Vygotsky's *Consciousness as the Object of Behaviorist Psychology* (a speech) given at the Second All-Union Congress on Psychoneurologiya paper, which stunned the entire Russian psychological community, and was one of those few attempts at challenging the orthodoxy in the early twentieth century psychology. In opening remarks, Vygotsky diagnosed a deep crisis in psychology and argued for a synthesis across the rival schools running from mechanistic behaviourism (which reductively explained human action in terms of stimulus-response reflexes), through introspective idealism (which abstracted consciousness as an immanent, unobservable and subjective phenomenon) --had not yet yielded a coherent, materialist explanation of the whole range and richness of human psychological processes. All of them, he argued, would fail to capture the essentially social character of human cognition and leave the discipline rudderless with respect to a coherent theory of mind. Vygotsky sought to bring together different views and create an integrating theory. One of Vygotsky's most important aims in this work was his desire for an integrated approach combining both the "natural science" and the socio-cultural aspects. He wanted to build a model which could allow us to empirically study such processes as higher mental function (i.e., abstract thinking, voluntary attention, symbolic thought, and metacognition) --using methods acceptable to the natural sciences but eschewing the reductionism of previous efforts at "naturalizing" psychology. In contrast to the behaviorists' neglect of consciousness on the one hand or the idealist treatment of it as an immaterial substance on the other, for Vygotsky "consciousness can become an object of study if we investigate how it is expressed in human activity, in social life." (Vygotsky, 1978).

Vygotsky further held that all mental functions (including the higher social mediated ones) have their roots in brain activity, self-consciously placing himself among the first to bring together experimental cognitive psychology and

neurology and physiology. This was at odds with the prevailing psychological view of the time which separated mind from matter and treated mental activity as something separate from brain function (and therefore able to exist independent of the body). In his view, mental events were dependent on brain states, evolved through natural selection, and are also culturally constructed. To account adequately for human actions, he believed human must consider: they need to study both the neurobiology of the mind and its transformation as a result of immersion in culture. Last but not least, Vygotsky grounded this integrative model on the Marxist accounts of human sociocultural history and thus offered us with a meta-theory through which to interpret how these historically structured social class, labor relations, and social institutions influence the psych-social development of individuals. By siting psychology in this larger frame of human action and culture, Vygotsky laid the ground for an integrated science of behaviour that took into account not only the biological but also the sociocultural determinants of human nature. Vygotsky in 1924 did not only criticize what already existed, but also it provided an alternative, radically futuristic vision of psychology as a science bridging the gap between the natural and social sciences, which were to become influential in many fields from development and educational psychology to cognitive science and culture. For Vygotsky, there was an answer to these dilemmas faced by his contemporaries scientists in the methods and principles of dialectical materialism. Its basic principle is that one should view everything as process of movement and change. Any phenomenon does not only have its own history but also has within its developmental course qualitative changes, i.e., changes in formal structure and fundamental character and quantitative changes. Vygotsky used exactly this dialectic approach for describing the development from simple psychic processes to higher psychological functions. The longstanding divide between the natural scientific investigation of elementary processes and the reflective analysis of cultural forms of behavior can be bridged by tracing qualitative shifts in behavior throughout developmental sequences. Vygotsky claimed that by placing psychological processes in their moving, changing context, the development method is “the main methodological principle of the psychological science” because only such an approach has the potential to capture the integrated interaction between biological, social and cultural forces that shape human mental life.

According to Marx (1978), it is the development of human society and its material conditions which cause a transformation of “man’s essence”—his subjective mental processes, his actions and activities. It was only with Vygotsky that an attempt was made to apply this fundamental principle from Marxism into psychology, thus providing a scientific foundation for the study of social policy rooted in empirical research on human development and cognition. Vygotsky also extended this notion of mediation between people and their environments to account for symbol systems. As with material tool systems, symbolic systems such as language, writing, numerals, and pictographs are social constructs, which have evolved through the course of human history alongside changes in modes of social organization and levels of cultural development. They are symbols that do not simply reflect reality and they also contain within them the wisdom, beliefs and mental processes of a culture. Vygotsky suggested that through the internalization of cultural and socially mediated symbols, individuals undergo qualitative changes. For instance, a child’s shift from preverbal thought into logic occurs because he or she can absorb the grammatical structure and rhetorical practices of his/her society, enabling them to regulate their own thinking and behaviour in the form of self directed speech.

All in all, Vygotsky’s theory situates the workings of individual developmental change firmly in a social and cultural context. Combining Marx’s theories on historical materialism with psychology’s analysis of mediation and internalization, Vygotsky showed that human thinking was not a solitary activity carried out inside the heads of individuals but instead a social practice mediated through the culturally developed instruments of the communities.

4 Vygotsky’s Developmental/Historical Approach

Vygotsky’s developmental/historical approach in the study of human nature followed immediately after the work by Blonsky, who argued in favor of the analysis of complex psychological functions within a developmental scheme. According to Vygotsky, technical activity – defined as instrumentally mediated action on the environment –was central for grasping the basic architecture of psychological nature. Vygotsky’s strong influence from Western European sociologists and anthropologists brought about his revival of an interest in reconstruction of psychological processes through studying intellectual activity among indigenous and pre-industrial societies. The anthropological turn, which emphasized cross-cultural and historical comparisons, was at the core of his project of rooting psychology in material and praxis rather than theory. Vygotsky draws on knowledge from anthropology, sociology, and developmental psychology in order to chart how higher mental processes (e.g., abstract thinking and use of symbols) develop.

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