Obutchénie
Revista de Didática e Psicologia Pedagógica

DOI: http://doi.org/10.14393/OBv9.e2025-29

DO YOU KNOW VYGOTSKY?
Context, epistemological basis, and theoretical assumptions of Vygotskian work

VOCÊ CONHECE VYGOTSKY?
Contexto, base epistemológica e pressupostos teóricos da obra vygotskiana

Daniela Rodrigues de Sousa[1]
Raquia Rabelo Rogeri[2]
Angelina Carlos Costa[3]

ABSTRACT
This article presents a bibliographical study aimed at bringing the reader closer to the thought of Lev Vygotsky, by contextualizing his work, his epistemological foundations, and his main theoretical assumptions. Fundamental concepts such as *tool*, *sign*, *mediation*, *internalization*, and the *relationship between thought and language* are analyzed, highlighting the central role of social interaction in the development of higher psychological functions. The study underscores the inseparable relationship between Vygotsky's theory and Marx's historical-dialectical materialism, emphasizing how mediation through tools and signs reflects the mutual formation between human beings and nature. The findings reveal that understanding human development requires a dynamic, historical, and socially situated approach. By offering a critical analysis of the educational

RESUMO
Este artigo apresenta uma pesquisa bibliográfica cujo objetivo é aproximar o leitor do pensamento de Lev Vygotsky, contextualizando sua obra, sua base epistemológica e seus principais pressupostos teóricos. São analisados conceitos fundamentais como Instrumento, Signo, Mediação, Internalização e a Relação entre Pensamento e Linguagem, evidenciando o papel central da interação social no desenvolvimento das funções psicológicas superiores. A pesquisa destaca a relação indissociável entre a teoria de Vygotsky e o materialismo histórico-dialético de Marx, enfatizando como a mediação por instrumentos e signos reflete a formação mútua entre homem e natureza. Os achados revelam que a compreensão do desenvolvimento humano exige uma abordagem dinâmica, histórica e socialmente situada. Ao trazer uma análise crítica das implicações educacionais dessa

[1] PhD in Education from the Pontifícia Universidade Católica de Goiás. Researcher at Kadjót - an interinstitutional group for studies and research on the relationship between education and technology. Professor at PUC Goiás. Orcid: https://orcid.org/0000-0002-0449-0209. E-mail: rodrix.dani@gmail.com.
[2] PhD student in the Postgraduate Program in Education at the Pontifícia Universidade Católica de Goiás. Professor in the Pedagogy program at the Pontifícia Universidade Católica de Goiás, where she currently coordinates the Pedagogy Course - Distance Education. Orcid: https://orcid.org/0000-0001-9789-3770. E-mail: raquia@pucgoias.edu.br.
[3] PhD student in the Postgraduate Program in Education at the Federal University of Goiás. Professor in the Pedagogy Course - Distance Education at the Pontifical Catholic University of Goiás. Orcid: https://orcid.org/0000-0001-9772-7668. E-mail: angelina.costa@hotmail.com.

DOI: http://doi.org/10.14393/OBv9.e2025-29

implications of this theory, the study reinforces the importance of a pedagogy based on interaction, holistic formation, and the overcoming of reductionist approaches.

Keywords: Vygotsky. Epistemology. Theory.

teoria, o estudo reforça a importância de uma pedagogia baseada na interação, na formação integral e na superação de abordagens reducionistas.

Palavras-chave: Vygotsky. Epistemologia. Teoria.

1 Introduction

Vygotsky[4]'s studies define a significant historical moment for philosophy, psychology, education, and other sciences, but their importance is not at that time in the past. According to Leontiev (1991), to understand the current importance, the relevance of his work, and his brilliance, it is necessary to highlight at least two aspects of his work. The first: Vygotsky and his collaborators outlined methodologies, hypotheses, and specific facts that have been confirmed and have been the object of further development in the research of contemporary psychologists. Their studies are considered classics. The second: his productions display unparalleled scientific precision and theoretical-methodological coherence. He faced the psychology crisis at the beginning of the 20th century and developed a new version of this science, structuring a theory whose foundations are not restricted to Russian thought. From a comprehensive perspective, he sought to overcome scientific isolation and, through theory, understand and solve practical problems. In the context of the Russian Revolution, many psychologists were willing to create a Marxist psychology that would contribute to the rebuilding of a war-ravaged country, but none of them had mastered the Marxist method as Vygotsky did.

Despite the vast quantities of research productions about Vygotsky, his work is still often interpreted out of context or in a fragmented manner. This study seeks to bring back the theoretical unity of his approach, emphasizing its Marxist foundation and its implications for psychology and education.

[4] There are different ways of spelling Vygotsky's name, we chose the form as it is found in the Selected Works (Vygotsky, 1991), however, in citations and references we will preserve the spelling present in the work in question.

DOI: http://doi.org/10.14393/OBv9.e2025-29

In this study, we aim to get closer to Vygotsky and explore some of the basic assumptions of his theory. To this end, we begin by investigating his intellectual trajectory, the historical context in which he produced his works, the epistemological basis that serves as the foundation of his work, the main interlocutors with whom he exchanged ideas, and some assumptions that can serve as an introduction to the understanding of his theory.

Our goal is to examine how some of Vygotsky's key concepts—mediation by instruments and signs, internalization, and the link between thought and language—express the mutual constitution between humankind and nature, as proposed in the Marxist tradition.

The main works that supported the bibliographic research were Vygotsky (1931, 1989, 1991, 1995); Vygotsky (2001); Vygotsky (2009); Vygotsky and Luria (2007); Leontiev (1978, 1991, n.d.); Marx (2013); and Marx and Engels (2004).

Considering the impossibility of studying all the assumptions of Vygotsky's theory, we chose to focus on the following: Instrument, Sign, Mediation by Instruments and Signs, Internalization, and the Link between Thought and Language.

These assumptions were chosen because they constitute the conceptual core from which the originality of Vygotsky's historical-cultural theory can be understood. They have ontological priority over the others. "When we attribute ontological priority to a given category over another, we simply mean the following: the first can exist without the second, while the other way around is ontologically impossible" (Lukács, 1972, p. 40). This relation of priority does not result in any hierarchy of value between these assumptions. Each reveals distinct and interdependent processes, all essential to understanding human development.

The notion of instrument and sign introduces the idea that human development happens being mediated by cultural and symbolic elements, establishing the basis for differentiating elementary psychological functions from higher psychological functions. From this point on, the concept of mediation becomes central, as it allows us to understand how human beings, by

DOI: http://doi.org/10.14393/OBv9.e2025-29

transforming nature through instruments and communicating through signs, concurrently transform themselves.

The process of internalization brings to light how social practices and interactions are converted to individual psychological functions, explaining the shift from the social to the intrapsychological. The relationship between thought and language constitutes perhaps the most emblematic axis of Vygotskian theory, demonstrating that human psychism is not an isolated entity, but a historical and social construction mediated by language.

Although, at different times, Vygotsky devoted himself to the psychology of art or the in-depth study of consciousness, the assumptions highlighted here are considered fundamental because they provide the explanatory pillars of human development from his historical-cultural perspective. They function as key categories that can articulate the other aspects of his work, giving cohesion to his theory.

They allow us to include the environment and culture (customs, traditions, activities such as reading, writing and calculation) in the systems of psychological activities and to comprehend how social and cultural processes act in human development.

Studying Vygotsky's theory is justified by its historical importance, its relevance to current affairs, and its political and ideological commitment. Currently, education is subjected to the hegemonic power of neoliberalism, which has a clear project for the development of the working classes: instrumentalized education, focusing on technical skills, articulated to the productive sector, which aims to adapt people to meet the immediate needs of the job market. It is an antidemocratic, uncritical education that encourages individualization and competition. This education is based on methodological eclecticism, theoretical fragility, and functionalist approaches that deprive the educational phenomenon.

Vygotsky's theory can help us break this imposed bias. We believe that Vygotsky's theory (and that of his collaborators) provides the foundation for a more democratic society, as it is grounded in the integral and critical development of the individual, emphasizing the importance of the social world for human development—which must be understood within the specific historical

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and cultural context in which it occurs. Choosing to study Vygotsky is to opt for scientific and methodological rigor, consistently materialistic, with the intentional ideological function of serving the education that attends the interests of the working class.

2. VYGOTSKY: psychology with theoretical, social, and political commitment

Lev Semenovich Vygotsky was born in Orsha on November 17, 1896, and died in Moscow on June 11, 1934. He lived during a very tumultuous historical period and was influenced by two major wars: World War I (1914–1918) and, most notably, the Russian Civil War (1917–1923).

Vygotsky was fluent in German, Russian, Latin, and Greek and read Hebrew, French, and English. Despite being part of one of the most cultured families in the city, being Jewish denied him access to certain opportunities. In Tsarist Russia, Jews were required to live in specific territories, faced restrictions[5] on university admission, and were excluded from certain professions, among other things (Werts, 1988).

Since adolescence, he had been interested in philosophy, theater, and literature. He was known as the "little professor" (Werts, 1988). He received a gold medal upon graduating from high school in 1913, but because he was Jewish, he feared he wouldn't be able to enter university. Fortunately, he passed his exams, entered medical school, and soon transferred to law school. In 1917, he completed his degree and became a professor of literature and psychology in Gomel. He also taught aesthetics and art history. He founded the Psychology Laboratory at the Gomel Professorial School. In 1920, he had to be admitted to a sanatorium to treat tuberculosis—a disease that plagued him ever since and was responsible for his early death (Werts, 1988).

In 1924, he married Rosa Smekhova, and they had two daughters. That same year, an event changed his life: when he presented a paper entitled "*Methods in Reflexological and Psychological Research*" at the *II Congreso*

[5] At the universities of Moscow and St. Petersburg only 3% of the students could be Jewish (Werts, 1988).

DOI: http://doi.org/10.14393/OBv9.e2025-29

Panruso de Psiconeurología en Leningrado, the then-unknown and very young professor from the countryside captured the attention of everyone present. The success of the paper earned him an invitation from Kornilov himself, director of the Moscow Institute of Psychology, to join the institution and participate in the renewal of psychology studies, a pressing need at that historical moment.

He moved to Moscow, continued his studies, and continued teaching. In 1925, he completed his thesis, *The Psychology of Art*. At the Institute of Psychology, he met Luria and Leontiev, and the three became known as the "*troika*"[6] of the Vygotsky School. Luria said that all of Moscow yearned to hear Vygotsky's lectures and classes; he often spoke to packed rooms with many people watching through the windows. The period from 1924 to 1934 was extremely productive for him. His genius and political vigor earned him a huge following of admirers and followers (Werts, 1988).

"Vygotsky and his colleagues devoted every waking hour to ensuring that the new socialist state, the first major experiment based on Marxist principles, would triumph" (Werts, 1988, p. 28). Vygotsky considered his work a duty to the Soviet state.

Vygotsky had two fundamental goals in his studies: to develop a psychology grounded in Marxist assumptions and to prove that practical societal problems—such as mass illiteracy, social and cultural differences, the near-total lack of services for people with special needs or learning disabilities[7], etc.—could be solved with the help of science. To meet the demands imposed by a destroyed and ruined country, "The new psychology had to start from the philosophy of dialectical and historical materialism; it had to turn into a Marxist psychology" (Leontiev, 1991, p. 2).

The *troika* devoted considerable time to empirical research. They traveled throughout the then Soviet Union (USSR), conducting studies, investigations,

[6] The word "troika" is of Russian origin (тройка) and literally means "trio" or "set of three." The term has roots in Russian culture, being used to describe a sleigh pulled by three horses lined up side by side, symbolizing strength, harmony, and cooperation (Batista, 2018; Educalingo, 2024). In the context of cultural-historical theory, the expression "troika" refers to the trio formed by Lev Vygotsky, Alexander Luria, and Alexei Leontiev, who were the main pioneers and collaborators in the creation and development of this approach.

[7] "Special needs" and "learning problems" are current terms, at the time terms such as "abnormal childhood", "mental retardation", "retardation" etc. were used.

DOI: http://doi.org/10.14393/OBv9.e2025-29

and opening research centers. At times, between teaching, research, and training professionals, Vygotsky had to withdraw from social and academic life to treat tuberculosis. But even in the hospital, he continued writing. In 1931, he began studying medicine, focusing specifically on neurology (Werts, 1988).

Between 1931 and 1934, he produced numerous compilations, articles, and books at an increasingly frenetic pace. He critiqued and introduced works by Piaget, Bühler, Köhler, Gessel, Koffka, and Freud. During this period, his tuberculosis worsened. Instead of resting, as his doctors recommended, he worked harder to accomplish as much as he had set out to do. After his death, many of his studies were continued by his colleagues and successors. Among them were Alexei Nikolaevich Leontiev (1903-1979); Aleksandr Romanovich Luria (1902-1977); Lydia Il'inichna Bozhovich (1908-1981); Aleksandr Vladimirovich Zaporozhets (1905-1981); Daniil Borisowitsch Elkonin (1904-1984); Liya Solomonovna Slavina (1906-1988) and Nina Morozova (1906-1989) (Andrade, 2019). Vygotsky wrote about 180 works (Leontiev, 1991; Werts, 1988). Because of Stalinist politics (1927-1953), after his death, his works were banned for about 20 years.

For us, Vygotsky's work draws attention for its scientific rigor; theoretical-methodological coherence; current relevance; dynamism and political commitment.

2.1. VYGOTSKY AND HIS INTERLOCUTORS: Combating the Fragmentation, Reductionism, and Scientific Isolation of Psychology

In some of his writings [Vygotsky (1989, 1991, 1995); Vygotsky (2009)], Vygotsky surveyed the main lines of study of human behavior to—based on an understanding of the ideas, theoretical, and methodological principles of these approaches—make comparisons, contrasts, and identify gaps, contradictions, and continuities. His critical study encompassed experimental and introspective psychology, pragmatism, empirical psychology, Russian reflexology, North American behaviorism and other behavioral theories of stimulus and response, objective psychology, the Würzburg school, reactology, Gestalt, and others (Vygotsky, 2009).

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In the second half of the 19th century and early 20th century, these theoretical approaches addressed important questions such as the relationships between animal behavior and human behavior; the relationships between environmental and mental events; and the relationships between psychological and physiological processes. According to Vygotsky (1989, 1991, 1995), Vygotsky and Luria (2007), and Leontiev (1978), these approaches provide partial answers within theoretically limited perspectives.

For Vygotsky (1989, 1991, 1995), Vygotsky and Luria (2007), and Leontiev (1978), psychology faced a major crisis at that time: none of the schools or approaches constituted a single, universal, and necessary scientific system for studying humankind in general. The perspectives were reductionist and limiting. There wasn't a sufficiently solid theoretical or methodological basis for undertaking research into human psychological processes.

The crisis was characterized by a division into two apparently conflicting halves: either psychology was considered a branch of the natural sciences, which explained human behavior based on elementary reflexes and sensations, or it was part of mental science, which described the properties that emerged from higher psychological processes (Cole; Scribner, 2009).

Vygotsky intended to undertake a psychology that would broaden, approximate and make possible the explanation (in addition to the description) of higher psychological functions in terms acceptable to the natural sciences, but considering the materiality of the historical and social context of the development of these functions.

The realization of the existence of an atomistic psychology – which disregarded the social context and the historical movement that constituted it – therefore highlighted the need to dedicate oneself to the creation of new study methods and more rigorous scientific systems.

The anti-historical approach to psychological phenomena persisted regardless of whether the object of psychology originated from matter or spirit. A contradiction emerged within psychology: despite having entire fields dedicated to studying the problem of evolution, it still failed to embrace

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this idea and believed that the laws of the human spirit were the same everywhere and always (Vygotsky, 1991).

For Vygotsky (1995), the fragmented and instrumental (functional) forms of analysis treated psychic processes in isolation. The “old psychology” (p. 09) was sure that the relationship between two functions never varied, therefore, it decomposed these relationships into independent factors, ignoring the unitary nature of the processes to be studied, assuming that each function had an autonomous development.

Vygotsky (1995) highlighted the urgency of a radical change in the method of psychological experimentation that would replace structural and functional analysis (which decomposed the psychological set into its constituent elements – thus losing its global characteristics) with an interfunctional or systems analysis, based on interfunctional relationships and their evolutionary transformations that, even when decomposing the psychological set into its constituent elements (which could occur at a specific moment in the study), would preserve in each part the properties inherent to the set.

The appropriate system of psychological analysis for developing a new psychology should begin with the historical theory of higher mental functions. This system considers the qualitative leap, inherent in the dialectical principle, that brain activity introduces into each origin and development of each of the higher mental functions.

Vygotsky (1989, 1991, 1995), after a great deal of study and empirical research, postulated the social origins of specifically human psychological functions and dedicated himself to explaining the mechanisms through which culture becomes a part of the individual's nature.

According to Cole and Scribner (2009), Vygotsky, by postulating that higher psychological functions are the product of social relations and the result of brain activities, became the first advocate of the combination of experimental cognitive psychology with neurology and physiology.

The Soviet psychology of Vygotsky and his collaborators (and their successors) aim to address the problems of fragmentation, eclecticism,

DOI: http://doi.org/10.14393/OBv9.e2025-29

methodological pluralism, and conceptual fragility present in the main Western, American, and European trends, which reveal themselves in the form of distinct psychological currents: functionalist, biologizing, idealist, or mechanistic. The structure of Soviet psychology links content, method, and epistemological and philosophical foundations, seeking to overcome existing dichotomies.

The Soviet movement marked a new stage in the history of psychology, starting an authentically scientific and consistently materialist phase, aware that it fulfilled an ideological function and served class interests.

The dichotomies present in previous studies were brought into question. In a movement of differentiations, comparisons, contrasts, combinations, and reworkings, Soviet psychology, based on historical-cultural assumptions, integrated the biological with the social, the physiological with the psychic, the external with the internal, the conscious with the unconscious, the empirical with the theoretical, the descriptive with the explanatory, seeking to understand the multiple determinations that make up human behavior in its totality, historicity, and contradiction.

2.2. MAN AND NATURE: a mutual and reciprocal construction carried out through the mediation of Instruments and Signs

Man is not born endowed with humanity; he becomes human through work[8], through which he also transforms the world in which he lives. Work sets in motion the sociometabolic process of dual transformation, mutual and reciprocal, that occurs between man and nature.

Marx and Engels (2004) state that man differentiates himself from animals when he begins to produce his means of existence, Vygotsky (1931, 1991, 1995) and his colleagues explain how this occurs in the psychological dimension: through the development of mediators, instruments and signs.

Consistent with its Marxist basis, at no point did Soviet psychology foregoes the previous ones; on the contrary, it recognized that without the existing production, the careful resolution of isolated problems, the refinement of

[8] Work here is taken as a fundamental concept of Marxist theory, it is what differentiates man from other animals, it is the process by which he interacts with nature, resulting both in his own formation and in the formation of the historical and social human world.

DOI: http://doi.org/10.14393/OBv9.e2025-29

the statistical apparatus, the large amount of data collected, the gaps that became visible, and the indissoluble impasse between the two tendencies (the natural-scientific, causal, explanatory, and the teleological, descriptive), the construction of the new psychology would not have been possible.

In contact with nature, to produce the means of survival, humans encounter pre-existing material situations, such as climatic, hydrographic, geological, social, and historical conditions. The way in which humans produce both the means of subsistence and their very existence depends on nature and the means encountered, which, in a way, determine their production. However, far from being an exclusively reproductive or adaptive task, this production is a creative and transformative task, as humans can modify natural conditions, subjecting nature to their purposes. In other words, human actions are simultaneously determined by nature and determinants in relation to it.

The use of instruments and symbols is fundamental to human development. Instruments, also called tools, are material objects that interact with the external physical world to alter it. According to Vygotskian theory, they are extensions of the human body and allow us to perform tasks and achieve results that hands, arms, legs, etc., alone could not achieve. Examples include axes, scissors, hoe, pencils, and all other technological tools developed by man. The function of instruments is to mediate human interaction with the physical environment and enhance our motor and sensory capabilities.

Signs, also called psychological tools, are symbolic systems that mediate communication and thought. They influence mental processes and facilitate communication and thought. Examples include language, numerical systems, maps, etc. The function of signs is to mediate social and mental activity, they allow us to reflect on the past and plan future actions.

> Through the tool, man influences the object of his activity; the tool is directed outward: it must provoke one or another transformation in the object. It is the means of man's external activity, oriented toward modifying nature. The sign changes nothing in the object of the psychological operation: it is the means man uses to influence psychologically, whether in his own behavior or that of others; it is the means of his internal activity,

DOI: http://doi.org/10.14393/OBv9.e2025-29

> aimed at dominating the human being itself: the sign is oriented inward (Vygotsky, 1931, p. 62).

Instruments and signs are artificial devices (in the sense of being historically developed) that mediate the relationship between humans and nature. Although they have distinct functions, they are inseparable in human behavior. Every action that intentionally produces or uses an instrument is linked to a system of signs. And "every sign presupposes a material element, of the sensory order (sound, image, chemical impression, thermal impression, etc.), which is precisely what allows it to serve as a *signal* of something to someone" (Sirgado, 2000, p. 57).

There is no human development without processes of instrumental and symbolic mediation. Mediation is the foundation for understanding human development. Considering the epistemological basis of Vygotsky's studies, we reject the formal perspective of the concept of mediation, which believes that the mediator is an external link that unites two elements. On the contrary,

> [...] from a dialectical perspective, mediation does not support the dualism between subject and object, between theory and practice. From this perspective, mediation is not associated with an action or thing that bridges the gap between subject and object; it is the process that involves subject and object in activity situated in each context (Peixoto, 2016, p. 371).

Mediation is connection, process and transformation, it is the translation of the impossibility of an immediate relationship between man and nature.

> Mediation itself is not a third element in a relationship between two organisms, nor is it a link that unites them externally; it is a relationship that promotes interconnections between specific parts of the organisms it mediates, provoking transformations in them. It is impossible to consider any of these organisms or even their specific parts separately, because mediation condenses them (Sousa, 2019, p. 74).

By explaining the processes of instrumental and symbolic mediation, Vygotsky (1931, 1991) demonstrates, in detail, how in the development of the

DOI: http://doi.org/10.14393/OBv9.e2025-29

human psyche, the mutual construction between man and nature proposed by Marx and Engels (2004) and explained by Lukács (1972) takes place.

Since instrumental and symbolic mediations are indistinguishable, the product of labor, in addition to serving human needs, expresses the human essence. The subject is self-implicated in the object. Human-made objects embody their ways of thinking, skills, knowledge, and intentions. "What they are [humans] therefore coincides with what they produce, both with what they produce and with the way they produce it" (Marx, Engels, 2004, p. 45).

To understand the development of higher psychological functions, it is important to first grasp the process of internalization.

2.3. INTERNALIZATION: Society in the Development of Higher Psychological Functions

The process of internalization has ontological priority over other higher psychological functions. It proves the clearly social nature of higher psychological functions. According to Vygotsky and Luria (2007), these functions do not emerge naturally; they are not innate, nor are they the result of the spontaneous "maturation" of elementary psychological functions. They represent a radical change in the very direction of development "and the subsequent advancement of the process along completely new lines: each new function thus constitutes a concrete neoformation" (Vygotsky; Luria, 2007, p. 51, 52).

The process of internalization is characterized by an internal reconstruction of an external operation. For Vygotsky (1991), every higher psychological function previously existed as a social relation. However, it is not an immediate transition from the external to the internal.

Internalization does not denote a linear, ascending development: forms of social behavior can be more complex than the stages of the psychism development. When transformed into individual behavior, the dynamical social relations generally descend and initially begin to function according to simpler laws. Vygotsky and Luria exemplify this process with egocentric speech, it is structurally inferior to social speech, even though it occurs later.

DOI: http://doi.org/10.14393/OBv9.e2025-29

They believe that perhaps for this reason Piaget considered egocentric speech to precede social speech, which they considered a mistake—we will address this issue in the next section.

Social relations are internalized and, after undergoing complex reworking, become forms of human behavior that synthesize dynamics between the social world and the psychic world.

The internalization process reorganizes collective behavior and transforms it into a psychological function. This reorganization involves the integration of external operations and internal processes, achieving complex syntheses.

> (...) the process of internalization consists of a series of transformations: a) An operation that initially represents an external activity is reconstructed and begins to occur internally (...). b) An interpersonal process is transformed into an intrapersonal process. All functions in the development of the child appear twice: first, at the social level, and then, at the individual level; first, between people (interpsychological), and then, within the child (intrapsychological). (...) All higher functions originate in real relationships between human individuals. c) The transformation of an interpersonal process into an intrapersonal process is the result of a long series of events that occur throughout development (Vygotsky, 2009, p. 93, 94, author's emphasis).

It's worth remembering that Vygotsky's interlocutors dichotomize body and mind, individual and social dimensions, etc., and indeed, fragment the psychic function itself. Thus, when Vygotsky demonstrates that the human psyche is formed by a process that integrates social and individual dimensions, a revolutionary moment for psychology is recorded.

In the development of Marxist psychology, Vygotsky points to the core of the approach used by him and his colleagues: "our basic and central idea: the idea of the historical development of human behavior, *the historical theory of higher psychological functions*" (Vygotsky, 1991, n/p, *emphasis added*).

The importance of sign systems in the process of internalization leads us to continue observing the historical relation between thought and language, two important higher psychological functions.

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2.4. THOUGHT AND LANGUAGE: Dynamic Interfunctional Relationships

In this study, we explore the relationship between thought and language to demonstrate the importance of the social environment for human psychic constitution and to demonstrate the dynamism between higher psychological functions.

Human development occurs through its unnatural (since it is historical and social) relation with the environment and with other humans. The collective practical activities that primarily enabled human survival required the development of communication processes in the form of language systems.

The work *Pensamiento y Lenguaje* (Thought and Language) (Vygotsky, 1995), which makes up *Tome II* of the *Obras Escogidas*, originally published in 1934, considers that the study of functions, the relationships between them and their evolutionary transformations may be the main problem of psychology.

According to this perspective, in the complex relation between thought and language, verbal thought represents the cellular unit, as it has as a prerequisite the internal aspect of the word in its meaning, which is considered an inalienable part of the word that belongs to both the domain of language and the domain of thought. The path to understanding the structure and function of verbal thought involves studying the genetic roots of thought and language.

Based on the different research by Koehler, Yerkes and Bühler (apud Vygotsky, 1995) on the intellectual behavior of anthropoids (chimpanzees or orangutans), Vygotsky concludes that there is total independence between the actions of these animals and their language.

Chimpanzees' phonetic expressions denote only desires and subjective states; they are expressions of affection, never an objective sign. "There is no evidence, however, that animals reach the stage of objective representation in any of their activities" (Vygotsky, 1995, p. 34).

Yerkes (cited in Vygotsky, 1995) argues that chimpanzees possess superior ideation and cannot develop speech due to a lack of vocal imitation. Vygotsky disagrees and considers that speech is independent of the nature of its material. The way in which it is used is not as important as the functional use of the signs.

DOI: http://doi.org/10.14393/OBv9.e2025-29

Language depends less on peripheral means (optical, auditory, and vocal) and more on intellectual operations of a specific type.

Ape speech serves the function of emotional release and social contact, but without achieving intentionality and consciousness, there is no integration between speech and thought.

In humans, the primary function of language is social contact. The development of language and thought in children up to ten, eleven, or twelve months of age is similar to that of chimpanzees—according to Koehler, this phase could well be called "the chimpanzee age" (cited in Vygotsky, 1995, p. 40), since thought and language operate independently; thought is pre-linguistic, and language is pre-intellectual.

Before language establishes a connection with thought, the thought involving the use of tools emerges, that is, an action that becomes subjectively meaningful and consciously intentional. For example, a baby who hasn't yet developed speech may use a spoon to feed himself.

According to Stern (cited in Vygotsky, 1995), at some point, approximately at two years of age, the lines of development of thought and language, which have distinct genetic roots and were previously separate, meet and unite and thus create a new form of behavior. He argues that, by relating words to objects, children discover the symbolic function of language. Vygotsky (1995) agrees with him regarding the union of the lines of development but disagrees with the permanence and stability of this union and believes that mastery of the symbolic function occurs much later in the child's life, after some slow and complex qualitative transformations in both thought and language.

Even without establishing limits to the domain of language's symbolic function, the moment it begins to serve the intellect, and thoughts begin to be expressed linguistically is characterized by two unmistakable symptoms: the child's sudden and active curiosity about words and the steep expansion of their vocabulary. Affective speech (like that of anthropoids) now enters the intellectual phase (Vygotsky, 1995).

DOI: http://doi.org/10.14393/OBv9.e2025-29

Both affective and intellectual speech are forms of external language and have a communicative and socializing function. The path between external speech and verbal thought, also called internalized speech, passes through egocentric speech, which, according to Vygotsky (1995), is not merely an intermediate stage between the two stages, as it has a well-defined and important role and represents a dialectical leap in the development of thought and language.

The term egocentric speech first appears in Piaget's studies of language development (cited in Vygotsky, 1995). For Piaget, the primary function of language is individual and serves the child's inner thoughts, thinking for themselves. The logical thought that is the basis for social speech appears later and has an intermediate stage in egocentric speech. Egocentric speech, despite being audible, does not yet have a communicative function and disappears once the final stage of language development (social speech) is reached. In other words, development progresses from the individual to the social and follows the regularities common to biological and social processes—regularities postulated by Piagetian theory. For Piaget, the sequence of language development would be: first, inner speech develops, then egocentric speech, and finally, social speech.

In Vygotsky's (1995) experiments, when researchers placed obstacles in children's spontaneous activities while they were engaged in problem-solving, the rate of egocentric speech nearly doubled—both compared to the rates found in Piaget's investigations (for children of the same age) and to the rate from their own research with children who did not face such difficulties. In other words, evidence emerged that egocentric speech aided the child's planning and problem-solving process. As research progressed, they concluded that egocentric speech

> In addition to being an expressive means and a means of releasing tension, it becomes an instrument of thought in the strict sense, in the search for and planning of solutions to a problem. (...) Egocentric language can alter the course of an activity. (...) Our experiences show transformations of a high degree of complexity in the interrelation between activity and egocentric language (Vygotsky, 1995, p. 21).

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Over time, audible egocentric speech (when a child narrates aloud the problem they face, the alternative solutions, their actions, changes in the course of action, their achievements and frustrations, etc.) tends to diminish. For Vygotsky (1995), far from being an indication of its disappearance, it indicates its internalization. He confirms this hypothesis by asking children who had solved the proposed activity silently how they proceeded, and their explanations resembled the egocentric speech previously spoken aloud.

In this sense, it reinforces the hypothesis that egocentric language is a transitional stage between verbal and internalized language. This is exactly the opposite of what Piaget proposes (cited in Vygotsky, 1995).

> Egocentric speech is speech internalized in its functions; it is language in an internal mode, intimately linked to the ordering of children's behavior. (...) Language development follows the same course and obeys the same laws as all other mental operations, involving the use of signs, such as numbering or mnemonic aids (Vygotsky, 1995, p. 44).

For Vygotsky (1995), an adult's internalized speech represents their thinking "for themselves" more than social adaptation. It has the same function and structural characteristics as egocentric speech for a child, that is, it can change the course of their activity.

> We consider that development in its entirety occurs in this way: the primary function of words, for both children and adults, is communication, social contact. Therefore, a child's first language is essentially social; at first, it is global and multifunctional; later, its functions begin to differentiate. At a certain age, a child's social language is divided, quite sharply, between egocentric and communicative speech. (...) From our perspective, both forms, communicative and egocentric, are social, even though their functions are different. Social language emerges when the child transfers the forms of participatory social behavior to the personal-inner sphere of psychic functions. (...) Egocentric language extracted from general social language leads, in due time, to internalized speech, which serves both autistic and symbolic thinking (Vygotsky, 1995, p. 23).

For our study, it is important to highlight that egocentric language does not occur in a void, but is directly related to material life, to the child's practical

DOI: http://doi.org/10.14393/OBv9.e2025-29

relations with the world. Practical relations set in motion the process of developing rational activity, including intelligence, from the moment these actions begin to be intentional, gradually serving planning and problem-solving as activities become more complex.

Both egocentric and internalized language are capable of interfering with the course of activity and controlling the behavior of the individual and their peers. By acting on the thought process, it enables humankind's creative and transformative action in its relationship with nature.

Language development is neither natural nor mechanical, at each stage, its functions and relations to development change. Internalized language develops through slow accumulations, functional and structural transformations, separating itself from the child's external speech, simultaneously with the differentiation of the social and egocentric functions of language. Finally, the structures of egocentric language, mastered by the child, become basic structures of thought.

The development of thought is linked to language, that is, to the linguistic tools of thought and the child's sociocultural experiences. A child's intellectual growth depends on mastering the social means of thought and language.

Children's activity stimulates thought processes, as seen in the manifestation of egocentric language in solving practical problems. This statement reminds us of Marx and Engels (2004), who argue that the creation and use of tools are inseparable from the human labor process. Chimpanzees can use tools to solve problems and imitate others of their own species and even those of different species, but they do not develop intellectually through these means. They are unable to utilize mental resources (resulting from abstraction, memorization, etc.).

The child differs from the chimpanzee in that he or she correlates the use of tools with the use of signs (genesis in egocentric speech, continuity in internalized speech and thought processes). Humanization is not linked to the use of tools (by itself), but to the inseparable use of tools and signs.

DOI: http://doi.org/10.14393/OBv9.e2025-29

Human labor, though conditioned by material circumstances, is creative labor, responsible for the historical evolution of humanity, for the dynamism of the production of instruments and signs.

> We presuppose labor in a form in which it concerns only humankind. A spider performs operations similar to those of a weaver, and a bee shames many an architect with the structure of its hive. However, what distinguishes the worst architect from the best bee from the outset is the fact that the latter has the hive in mind before constructing it with wax. At the end of the labor process, one arrives at a result that was already present in the worker's representation at the beginning of the process—thus, a result that already existed ideally. This does not mean that the worker limits himself to altering the form of the natural element; he simultaneously achieves in the latter his objective, which he knows determines, as a law, the type and mode of his activity and to which he must subordinate his will. And this subordination is not an isolated act. In addition to the effort of the working organs, labor activity requires the will oriented towards an end, which manifests itself as the worker's attention during the performance of his task, and this is all the more so the less this work, by its own content and the way of its execution, attracts the worker, therefore, the less the latter enjoys it as a play of his own physical and mental forces (Marx, 2013, p. 327, 328).

The essence of other animals is explained in the process of biological evolution. Their evolutionary stages are inscribed in the organism. These are much more processes of maturation than development, in the strict sense of the term.

To understand human behavior, it is necessary to consider social experience, historical experience, and duplicated experience. The latter causes the result of labor to exist twice: first in the mind, as an ideal representation of what is intended to be produced, and then as a real product (this process occurs through the mechanism of consciousness and through signs).

The study of the relation between thought and language allows us to systematize some ideas of Vygotskian theory: the development of human behavior is closely linked to social experiences, does not occur in a neutral environment, and therefore it is essential to consider the material conditions of the context in which it occurs; the superiority of action in relation to the

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development of language and thought; the historical study of psychological functions cannot be separated from the associations that are established between them and the evolutionary transformations that occur between these relationships; and, finally, that one of the characteristics of specifically human behavior is the ability to correlate instrument and sign.

3. FINAL CONSIDERATIONS

Vygotsky, immersed in the political and social issues of his time, inaugurated a psychology whose scientific basis lay in Marxist philosophical foundations. Higher psychological functions develop primarily in social interactions and are subsequently internalized by individuals. This conception, based on the perspective that consciousness is shaped by social conditions, articulates with Marx and Engels' (2004) reflections on the role of instruments and labor in the transformation of nature, society, and human beings themselves. By addressing the processes of instrumental and symbolic mediation, Vygotsky (1931, 1991) highlights the reciprocal construction between humankind and nature postulated by Marx, highlighting the centrality of the social environment in human development.

Vygotskian analysis, by emphasizing mediation by instruments and signs and the relationship between thought and language, proposes a dynamic and interfunctional approach to the development of psychism, as opposed to static or fragmented views. Thus, it is understood that human psychism originates in social relations and the material world, access to which is conditioned by social class. In a context of inequality, it becomes clear that, although humanity has produced countless riches, these are not equally distributed, which constitutes a crucial element for reflection on human development.

This study reinforces the need to understand Vygotsky's work in its entirety, avoiding fragmentations that distort his theoretical project. By recovering his Marxist foundation and his emphasis on instrumental and

DOI: http://doi.org/10.14393/OBv9.e2025-29

symbolic mediation, we reaffirm the importance of a materialist and dialectical approach to contemporary psychology and education.

In a scenario where education is often subject to market demands, historical-cultural psychology presents itself as a critical and transformative alternative. Thus, studying and applying Vygotskian principles is not just an academic exercise, but a commitment to an education that promotes emancipation and full human development.

¿CONOCES A VYGOTSKY?
Contexto, base epistemológica y supuestos teóricos de la obra vygotskiana

RESUMEN
Este artículo presenta una investigación bibliográfica cuyo objetivo es aproximar al lector al pensamiento de Lev Vygotsky, contextualizando su obra, su base epistemológica y sus principales supuestos teóricos. Se analizan conceptos fundamentales como Instrumento, Signo, Mediación, Internalización y la Relación entre Pensamiento y Lenguaje, evidenciando el papel central de la interacción social en el desarrollo de las funciones psicológicas superiores. La investigación destaca la relación indisoluble entre la teoría de Vygotsky y el materialismo histórico-dialéctico de Marx, enfatizando cómo la mediación por instrumentos y signos refleja la formación mutua entre el hombre y la naturaleza. Los hallazgos revelan que la comprensión del desarrollo humano exige un enfoque dinámico, histórico y socialmente situado. Al realizar un análisis crítico de las implicaciones educativas de esta teoría, el estudio refuerza la importancia de una pedagogía basada en la interacción, en la formación integral y en la superación de enfoques reduccionistas.

Palabras clave: Vygotsky. Epistemología. Teoría.

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Received in February 2025
Aproved in October 2025