Comparative Analysis of Approaches to Child Development by L.S. Vygotsky and G. Bowlby

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Objective: To compare the positions of L.S. Vygotsky and J. Bowlby regarding three critical aspects of mental development of a child: the characteristics of newborn perception, the extent of an infant’s engagement in early social interaction, and the psychological nature of the bond between an infant and its mother.

Method: a comparative analysis.

Results. The authors’ viewpoints share common ground in acknowledging the child’s immediate engagement in social relationships following birth and the pivotal role of a primary caregiver figure in the child’s development. Nevertheless, disparities in the interpretation of “primordial we” and “attachment” concepts, employed by the authors to elucidate the specifics of the child’s connection with the mother or a caregiver, are explored. The study reveals a divergence between L.S. Vygotsky’s postulate of infant helplessness, forming the foundation of the developmental social context at this stage, and J. Bowlby’s perspective, emphasizing the presence of highly effective inborn forms of social perception and behavior in infants. Conclusions. These disparities in the authors’ viewpoints may be attributed to their reliance on different research paradigms, with one emphasizing culture-centred approach and the other adopting an evolution-centred approach. L.S. Vygotsky’s assertion about infant helplessness, though lacking empirical validation, maintains its theoretical importance as a direction in the search for the unique course of human development.

Keywords: cultural-historical theory, attachment theory, newborn, childhood, infancy.

Acknowledgements. The author extends appreciation to Professor N.N. Nechaev, an Academician of the Russian Academy of Education, for his assistance and support while writing this article.


Сравнительный анализ подходов Л.С. Выготского и Дж. Болби к развитию ребенка на первом году жизни

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Цель статьи — соотнести позиции Л.С. Выготского и Дж. Болби по трем ключевым аспектам психического развития на первом году жизни: характеристикам восприятия у новорожденного ребенка, степени включенности ребенка первых месяцев жизни в социальное взаимодействие и психологическому содержанию связи между младенцем и его матерью. Метод: сравнительный анализ. Результаты. Обозначено сходство позиций авторов, которое заключается в принятии ими положений о включенности ребенка в систему социальных связей сразу после рождения и об особой роли близкого взрослого в развитии младенца. Рассмотрены различия в содержании понятий «пра-мы» и «привязанность», использованных авторами для описания специфики связи младенца с матерью или заменяющим ее человеком. Показано, что постулат Л.С. Выготского о младенческой беспомощности, помещенный им в основу социальной ситуации развития в этом возрасте,
Introduction

This study involves a comparison of two theoretical approaches aimed at elucidating the same phenomenon: the mental development of an infant from birth to one year of age. Despite the fact that both the cultural-historical concept and attachment theory were proposed by their respective authors in the first half of the 20th century, the task of comparing their principles remains pertinent. This relevance is underscored by the fact that prominent Russian psychologists, who studied child development through the lens of cultural-historical and activity paradigms, repeatedly revisited questions regarding the specific aspects of child development addressed by attachment theory [1; 4; 8—9; 11; 13]. Evidently, they recognized the profound resemblance between both theories, particularly in their shared assertion of the pivotal role played by the social environment in child development. However, the reception of attachment theory among different Russian scholars could vary significantly, ranging from vehement critique as seen in the works of M.I. Lisina [8], to a more accommodating stance endorsing the possibility of integrating both approaches, as reflected in the works by G.V. Burmenskaya [4]. A comprehensive comparative analysis of the tenets of cultural-historical psychology and attachment theory has not yet been conducted. Meanwhile, the tasks inherent in advancing cultural-historical and activity-based approaches themselves necessitate a lucid comprehension of the commonalities and disparities with alternative theoretical perspectives, as well as the development of one’s own standpoint regarding the acceptance or rejection of their propositions [10].

In the first half of the 20th century, L.S. Vygotsky and J. Bowlby were neither the first, nor the only, nor the most renowned researchers in the field of child development. Pioneering studies had already been undertaken by proponents of psychoanalysis, the reflexology school, cognitive science theories, and various other approaches, each offering their own models explaining child development. The influence of these antecedent ideas and the reliance on data from these studies are discernible in the arguments put forth by both L.S. Vygotsky and J. Bowlby. Nonetheless, these authors pursued divergent, occasionally opposing, trajectories in developing their concepts, founded on disparate conclusions and generalizations. The most crucial and simultaneously contentious aspects in the works of L.S. Vygotsky and J. Bowlby revolve around the following domains:

1. The extent and selectiveness of an child’s perceptual capabilities during the neonatal period;
2. The degree and character of an child’s engagement in social interactions during the early months of life.
3. The origins and psychological content of the distinctive bond between the child and the mother, or a caregiver, in the child’s first year of life.

The structure of the forthcoming comparative analysis is determined by these three domains, and the subsequent text provides an exhaustive review of the authors’ positions on each of these domains.

Infant Perception

At the time L.S. Vygotsky composed his chapter on infancy, there were relatively few empirical studies in this realm, and these primarily related to fields such as medicine, physiology, and reflexology rather than experimental psychology. In Vygotsky’s works, during the initial one or two months of life, a child emerges as a self-contained, unconditionally reflexive being, whose higher
nervous functions are still at an early stage, awaiting full development. According to Vygotsky, the newborn’s perception is limited to a sense of self, instincts, and drives, while the external world remains beyond their grasp. He articulates this viewpoint by stating, “We are inclined to think that in the first month, neither someone nor anything exists for the baby, that it, rather, experiences all stimuli and everything around only as a subjective state” [5, p. 277]. It is worth noting that, despite Vygotsky’s opposition to psychoanalytic notions of childlike solipsism and his view of the child as inherently social, he, to a considerable extent, corroborates the concept of childlike solipsism when discussing the newborn. Nonetheless, he does acknowledge the presence of mental activity in an infant from birth, albeit with its physiological basis in subcortical regions of the brain rather than the cerebral cortex regions as in later stages of development. In the newborn, mental life is exhibited through expressive movements, intonated cries, as well as vague states of consciousness and undifferentiated experiences of situations.

Vygotsky’s theoretical position introduces a distinctive form of perception in the newborn—an undifferentiated perception that doesn’t segment reality into distinct objects. The foundation for this assertion can be traced back to facts presented by K. Koffka, influenced by Gestalt psychology, which indicated that infants in their early months begin to distinguish whole, complex entities within their environment earlier than their individual components. Expanding on these empirical findings, Vygotsky posits that newborns experience profound disparities between consciousness and perception: “The initial perceptions of the child represent an undifferentiated impression of the entire situation, where not only are individual objective aspects of the situation not separated, but the elements of perception and emotion remain undifferentiated” [ibid., p. 277—278].

J. Bowlby held a radically opposing viewpoint. Grounded in a more extensive body of empirical evidence, he argues that “...at birth or shortly thereafter, all sensory systems in the newborn become functional” [3, p. 200]. According to Bowlby, a newborn possesses the ability to discern a broad array of stimuli, displaying keen sensitivity and a wide range of behavioral responses. Furthermore, observations and experiments indicated the presence of distinct sensory preferences and the selectivity of responses in newborns, as he noted, “...the child shows greater attention to certain aspects of the external environment over others” [ibid.]. Expanding his theory of attachment as a component of the broader control system framework in biology, J. Bowlby attributed significant importance to feedback mechanisms. He illustrated how, from the earliest days of life, reinforcement and extinction mechanisms come into play, orchestrating the child’s behavior [3].

The disparities in viewpoints between these two scientists are notably extensive. L.S. Vygotsky portrays the newborn as being entirely self-contained, unable to discern individual objects or their attributes from the overall external world. In contrast, J. Bowlby depicts an infant, right from birth, as receptive to sensations, perceptions, and the impact of all external stimuli, as well as selectively responding to them. While L.S. Vygotsky suggests that a newborn’s behavioral expressions are restricted to unconditioned reflexes, J. Bowlby’s perspective maintains that an child, from the very first days of life, possesses the capacity to adapt and regulate its behavior in response to external influences through feedback mechanisms.

Engagement of the Newborn and Infant in Social Interaction

Acknowledging the paramount significance of engagement in social relationships for a child’s mental development, both L.S. Vygotsky and J. Bowlby grappled with a fundamental question: Is a person inherently born with the need for social relationships, or is it something that evolves over the course of life? This question carries profound implications, as it pertains to the essence of human nature. Cultural-historical theory and attachment theory offer contrasting responses to this question.

L.S. Vygotsky extrapolates a logical consequence from the notion of undifferentiated perception in a newborn: during this period, an infant lacks the capacity to distinguish between physical and social entities. In other words, in the first time after birth, the child cannot differentiate a person from inanimate objects and responds to individuals in a similar manner as to objects. Moreover, according to Vygotsky, the newborn fails to recognize that someone is engaging with it because it does not separate itself from the experience of the whole situation. Vygotsky contends that the behavior of a newborn is characterized by an absolute absence of any social manifestations, stating, “A newborn, as is easy to understand, does not exhibit any specific forms of social behavior” [5, p. 278]. In alignment with contemporary infancy researchers, he posits that social responses and activity directed towards another person emerge at a much later stage, noting, “We can begin to confidently discuss social impressions and reactions only during the period between the 2nd and 3rd months, i.e., beyond the neonatal stage. During this same period, the infant’s social engagement is characterized by complete passivity. Neither in its behavior nor in its consciousness can we discern anything that signifies social experience as such” [ibid.]. This concept remains consistent among his followers [7—8; 14; 17]. For instance, A.N. Leontiev wrote, “Ini-
tially, the infant’s attitude to the world of objects and the people around them is fused, but over time, they differentiate, forming distinct yet interrelated developmental trajectories that merge into one another” [7, p. 215]. M.I. Lisina, while delving into the ontogenesis of communication, adheres to the same viewpoint, asserting, “Our perspective asserts the gradual lifelong formation in children of a need to communicate with people around them” [8, p. 44].

As the newborn progresses into the infancy stage, its responsiveness to the “world shaped by adults” becomes increasingly pronounced [5, p. 300]. During this period, the child begins to show a wide array of social behaviors and associated emotions. Behavioral signs emerge that “unmistakably demonstrate the child’s ability to distinguish between people and inanimate objects even in infancy” [ibid., p. 316–317]. In the early stage of social development, the child can merely perceive the initiatives of adults and respond to them. It’s only in the second half of the first year that the child starts to develop the need for social interaction and engagement. In the pursuit of its objectives, the child discovers “...the most common and natural way through another person” [ibid., p. 302]. Over time, the adult gradually becomes the central figure within the child’s perceptual world, and “the meaning of any situation for the baby is determined primarily by this central figure” [ibid.]. All of the child’s activity and its attitude to the phenomena of their surroundings are shaped by its bonding with an adult, lending the impression of the child as an inherently social being.

Hence, in L.S. Vygotsky’s ideas, the transition from the absence of social perception and social-oriented behavior in the neonatal period to its maximum during infancy is a gradual process. According to Vygotsky, “the exceptional nature of infant sociality primarily lies in the fact that the child’s social communication has not yet detached itself from the overall interaction with the external world, inanimate objects, and the process of satisfying basic needs” [ibid., p. 316–317]. Notably, one of the key postulates, from the perspective of Vygotsky’s subsequent theoretical constructs, is the notion of “infant helplessness.” This concept underscores the child’s reliance on adults as the sole means to fulfill their needs and interact with the world. This dependence propels the child’s development in the direction of communication and internalization, compelling them to develop speech and acquire elements of human culture.

J. Bowlby initiates his line of reasoning regarding the sociability of infants with a resolute assertion: “When he is born, an child is far from being a tabula rasa” [3, p. 197]. He contends that a newborn’s readiness to respond to social stimuli and engage in social interactions is remarkably high. He asserts that “...right from the beginning, there is a clear predisposition to react in a specific manner to certain types of stimuli typically associated with a person: auditory from the sounds of a voice, visual from the face, tactile and kinesthetic responses from hands and body” [ibid., p. 198], and that “this sort of differentiated responses becomes evident as early as the first day after birth” [ibid., p. 204]. Bowlby elaborates on the idea that a child possesses a range of pre-established forms of behavior directed towards other individuals, such as crying, non-nutritive sucking, eye-tracking, grasping, clinging, vocal expressions, etc.

According to J. Bowlby, the presence of these pre-established behaviors in the child from the earliest days of life serves a specific, evolutionarily grounded purpose. This behavior is designed to influence the adult caregiver, which “...is likely to increase the time that the child is in close proximity to this person...”, which, in turn, enhances their chances of survival, comfort, and successful development. Hence, Bowlby suggests that from birth, the child “...not only possesses a repertoire of behavior control systems ready for activation but also that each of these systems is inherently predisposed to respond to specific stimuli from a certain range (or several ranges), to be stopped by stimuli from another wide range and is strengthened or weakened by stimuli from a third” [ibid., p. 197]. These first signals from the child are not directed at any particular person; rather, they are given in accordance with the evolutionary expectation that there are people nearby for whom they are intended.

Consequently, there are several fundamental discrepancies in perspectives concerning the social needs and abilities of newborns and infants. L.S. Vygotsky does not acknowledge that newborns have, immediately or shortly after birth, the capacity to differentiate people from the environment, an active inclination for social interactions, or specialized forms of behavior directed towards others. According to him, attention towards and interest in people emerges in the age of two to three months, while active engagement in interpersonal interactions emerges after six months of age. In contrast, the proponent of attachment theory adheres to the viewpoint that newborns possess an innate, intrinsic desire for social interactions, driven by an evolutionary predisposition to differentiate people from the general background, an inherent need to actively pursue and maintain proximity to caregivers, and pre-established attachment behaviors.

The Nature of the Infant’s Bond with a Primary Caregiver

Both in cultural-historical psychology and in attachment theory, the individual closest to a newborn, often the child’s mother, holds a unique position within the child’s social environment. However, each theory presents its own perspective on the origin and
nature of these relationships and employs distinct terminology to describe their phenomenology and interpret their significance. L.S. Vygotsky employs the term “primordial we,” previously introduced by S. Bühler, while J. Bowlby introduces the concept of “attachment.” These concepts have distinct content and conceptual orientations.

L.S. Vygotsky writes, “The initial construct arising in the child’s consciousness can be more aptly referred to as ‘Ur-wir,’ that is, ‘primordial we’” [5, p. 305]. The term “primordial we” does not seem to have a precise definition in Vygotsky’s work; he appears to give it a descriptive or even metaphorical interpretation. Nevertheless, the quote above clearly indicates that he refers to the psychological structure of “primordial we” as a mental construct rather than a behavioral one. He posits that “primordial we” emerges as the earliest and genetically primordial form of a child’s consciousness and self-awareness. The child “...initially knows only a sort of “we”, in which “I” and “the other” form an integrated and cohesive structure [ibid., p. 309].

Regarding the origin of the maternal-infant bond, L.S. Vygotsky aligns with the predominant viewpoint of the psychoanalytic school at the time, which considered the social needs of the child as secondary and evolving from the satisfaction of earlier physiological needs by adults. He stated, “We can confidently assert that positive interest in a person arises from the fact that all of the child’s needs are fulfilled by adults” [ibid., p. 301]. While he acknowledges the mother’s exclusive role in the child’s “primordial we,” he doesn’t delve deeply into the specifics of the maternal-infant bond. He outlines his position in a general manner, describing the child’s relationship with the world as a derivative value stemming from its most immediate and specific relationship with an adult [ibid., p. 302]. According to E.O. Smirnova, in Vygotsky’s works, an adult is portrayed as an “abstract and formal conveyor of signs, sensory norms, intellectual operations, behavioral rules—essentially, as an intermediary between the child and culture, rather than as a living, specific individual” [14, p. 77].

As is known, M.I. Lisina later reconsidered L.S. Vygotsky’s stance on the concept of “primordial we” [8; 14]. In the “Lisina school’s” experimental investigations, it was demonstrated that during interactions with the mother, the child actively engages as a partner. The child initiates contact with the mother, seeks her attention, and responds to her, suggesting that such behavior only occurs when the child perceives a psychological separation from the communication partner and recognizes its own personality. This contrasts with Vygotsky’s belief in a state of fusion with the mother [1; 6; 8].

J. Bowlby’s scientific and psychological views initially developed within the psychoanalytic milieu. However, his explanation of the bond between an child and its mother diverges significantly from psychoanalysis. He adopts an ethological approach, which later forms the foundation of his attachment theory. Bowlby states, “Focusing on food reinforcement has led researchers to two negative consequences: speculative theorizing, which is, of course, erroneous, and also to ignoring until recently other types of reinforcement, including those that probably play a much bigger role in the development of social attachment than food” [3, p. 201]. He posits that communication between a child and an adult constitutes one such “other” form of reinforcement. His arguments draw from experimental research and observations of children separated from their mothers. These findings reveal that, despite receiving good care and nourishment, infants who lack substantial contact with their mothers exhibit signs of depression, delays in physical, cognitive development, and speech, and are more susceptible to illness and mortality [9; 12; 19].

Nonetheless, psychoanalytic concepts are discernible in J. Bowlby’s theoretical constructs. This is particularly evident in the notion of basal anxiety, which, according to psychoanalytic theory, arises from the inherent birth trauma and permeates the child’s entire mental world and its attitude towards the surrounding world. The impetus for avoiding anxiety underpins the emergence of “attachment behavior,” whereby the child seeks to maintain close proximity to “its” adult, striving to preserve this closeness and resisting any attempts to sever it by all available means [3]. Another psychoanalytic construct significantly impacting attachment theory is the concept of object relations. It asserts that the image of the “primary object” is formed and firmly embedded in the child’s mind, making a substitution with another adult impossible without inflicting psychological trauma [15].

In both approaches, it is acknowledged that during the first months of life, the child singles out a specific person among those around it and develops a distinct bond. However, the underlying genesis of this bond is construed differently. L.S. Vygotsky attributes this bond to the fulfillment of the child’s physiological needs by adults, while attachment theory posits that it originates from the child’s innate inclination for social interaction, compounded by an emotional mechanism of anxiety in stressful situations, which manifests as “attachment behavior.”

Results and discussion

A comparative analysis of L.S. Vygotsky and J. Bowlby’s perspectives on child mental development in the first year of life has identified both points of their similarity and disparity on several pivotal issues. They share fundamental tenets regarding the child’s early integration into a network of social connections immediately following birth and the distinct nature of the bond with
the child’s primary caregiver. Nevertheless, these disparities are multifaceted and may be attributed to their reliance on different research paradigms, with one emphasizing culture-centred approach and the other adopting an evolution-centred approach.

According to L.S. Vygotsky, the newborn is immersed in its internal sensations, displaying no interest in the external world, complete passivity, and a perception of reality as an undifferentiated whole. In contrast, J. Bowlby believes that a child immediately after birth perceives and distinguishes all objects of the external world and sensory stimuli and also demonstrates selectivity towards them. L.S. Vygotsky attributes the emergence of the infant’s interest in an adult to the fulfillment of its physical needs, whereas J. Bowlby contends that the child has an innate social need, distinct from other necessities. L.S. Vygotsky formulates the theoretical concept of infant helplessness, positioning it as the foundation of the social developmental context at this stage. It is this helplessness, coupled with the inability to communicate its needs to an adult due to the absence of verbal forms of expression, that generates the principal dialectical contradiction of this age. The child’s subsequent development inevitably revolves around the resolution of this contradiction, achieved through the development of speech to sign mediation, internalization, and the formation of higher mental functions.

To describe the unique bond between an child and its mother (or a caregiver), the authors employ the terms “primordial we” and “attachment.” The former pertains to the child’s mental realm, reflecting its subjective sense of inseparability from the mother. It marks a crucial step in the development of consciousness, self-awareness, and personality. The latter pertains to evolution-based adaptive behaviors, encompassing both innate and lifelong, context-specific forms of behavior aimed at maintaining proximity to an adult for protection and care. The child’s attachment is inherently personalized, and substituting a caregiver is perceived by the child as the loss of its “attachment figure,” leading to suffering and psychological distress. In the theoretical constructs of L.S. Vygotsky, the mother assumes the role of a source of cultural experience and a conduit for culturally defined behavioral patterns, yet the question of her individuality and irreplaceability remains unaddressed.

During the latter half of the 20th century, a multitude of experimental psychological studies brought to light the extensive nonverbal self-expression capabilities of newborns and infants. As a rule, these abilities lead to reliable understanding and appropriate responses from adults [22]. Contemporary research has unveiled that in the first year of life, children exhibit capacities for joint attention [18], social cognition [21; 25], the creation of intermodal images [2], emotional self-regulation [28], behavioral adaptation based on prior experiences [18; 23]. It has also been demonstrated that infants can experience, express, and regulate a broad spectrum of emotions [24; 28; 29], actively explore their environment, engage in learning [2; 6; 29], communicate, and form close relationships [9; 12]. Most of the tenets of attachment theory have been empirically validated, and the theory itself continues to actively evolve [20; 23; 26–27].

Nevertheless, attachment theory does not encompass an entire realm of most important aspects of child development. J. Bowlby acknowledged, “The least studied stage of human development remains the one at which the child acquires all his specifically human qualities. Here, a whole uncharted continent lies before us” [3, p. 399]. This uncharted continent remains enigmatic in many ways. A.B. Khokhlova, for example, articulates the point of view that despite the flourishing of contemporary neurosciences, they represent another form of biological reductionism in psychology, particularly in the realm of social relationships and social cognition, ultimately resulting in the blurring of qualitative distinctions between animals and humans [16].

In this context, the theoretical constructs of L.S. Vygotsky, anchored in the hypothesis of infant helplessness, can be viewed as an attempt to address this task. Putting forward the postulate of infant helplessness as the initial stage of development enabled him to theoretically substantiate the profound uniqueness of the path of human development. The infant’s complete reliance on adults, coupled with inability to communicate its needs, determine the path of child development leading through language acquisition to conceptual thinking and the extensive assimilation of cultural elements. This framework maintains a logical consistency and leaves an indelible impression due to its profound conception. Although lacking direct empirical confirmation, it has retained its theoretical significance and relevance.

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