

# The Human as Animal Symbolicum: Origins of Symbolic Function

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**Ivana Stepanović Ilić**

*University of Belgrade, Faculty of Philosophy*

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“The Human as Animal Symbolicum” is a deeply reflective study that illuminates the complexity of human nature through symbolic frameworks. This is a unique book in many respects. The book consists of two parts written over a span of nearly forty years, providing the reader with a kind of journey through the development of a highly complex and exciting field of developmental psychology and the leading theoretical approaches. By studying the development of symbolic function, this book makes a significant contribution to understanding human psychological life and functioning, focusing on the feature that deeply distinguishes the humans from the rest of the living world and makes us unique beings, capable of creating new realities.

It is utterly impressive how Ivić’s contribution in the first part of the book, published in Serbian back in 1978, has not only survived the test of time, but has also retained its relevance and current importance regarding the contemporary knowledge about the symbolic function and the nature of its development. In the second, more recent part of the book, also originally published in Serbian in 2015, Ivić has supplemented and deepened his previous study on the development of symbolic behaviour in humans, documenting and supporting many of his claims with newer research, especially from the fields of social neuroscience and developmental social neuroscience.

In the book, Ivić explores four key issues that are essential for understanding the nature and developmental trajectories of the symbolic function: (1) distinctive features of semiotic systems; (2) a comparison of human symbolic behaviours with those of related animal species; (3) initial forms and origins of symbolic behaviour in children; and (4) developmental pathways of the symbolic function and its impact on various domains of human development.

These four areas reflect the author's emphasis on the importance of a genetic approach, which he considers to be the most suitable for addressing this enormously complex phenomenon. Consequently, this study aims to examine the evolutionary significance and origins of the symbolic function, followed by a thorough analysis of semiotic behaviours and their unique development during human ontogenesis.

In the first section of the book, Ivić examines the properties and nature of semiotic systems, defining symbolic function across three hierarchically organised levels, which reveal deep insights into various forms of semiotic behaviour. He argues that complete understanding of a human as the animal *symbolicum* requires awareness of all three levels. The third level is fundamental for understanding the human symbolic function. Being the most complex, it involves our capacity to create diverse symbolic realities which, as Ivić suggests, shape not only our inner world, but also our society and culture. Given the rapid development of information and communication technology, it becomes clear how crucial this definition is for understanding and exploring the new virtual symbolic realities in which we are all so deeply immersed at the present.

In the second section, Ivić compares semiotic expressions of humans with behaviours of animals that could be associated with the symbolic function. Situating the development of the symbolic function in the process of communication and real-life context, as the best starting point for its exploration, the author subjects the animals' systems of communication to a sophisticated semiotic analysis. Consequently, he convincingly demonstrates that the most advanced symbolic behaviour of animals, appearing in several chimpanzees mainly as a result of systematic training, could be treated as a barely minimal sign of semiotic abilities. When this conclusion is observed in the light of the first section of the book, more precisely, concerning the mentioned multilevel definition of symbolic function, it becomes obvious how great evolutionary achievement humans have made throughout history.

The third section of the book, dedicated to the beginning of the development of symbolic function in children, represents a masterpiece of Ivić's extraordinary analytical capacities. He demonstrates profound understanding of various theoretical approaches (e.g. Piagetian constructivist, Vygotskian socio-cultural, Chomsky's language acquisition device, Psychoanalytic affective bonding), contrasting and virtuously combining them into a unique framework of the most important developmental prerequisites for the emergence of symbolic function in humans. Ivić's perspective on primary sociality and the child's need for emotional attachment as a foundation of symbolic function is of great importance for understanding the origins of human communication, and subsequent development of symbolic function. Considering the challenges of studying practical-situational communication and its immense significance for the subsequent development of symbolic function in all its dimensions, Ivić's insightful analysis of this phenomenon in the context of adult-child everyday

interactions can be seen as another particularly valuable contribution. Thus, he emphasises that the mechanism of social feedback, the transformation of children's gestures into communicative acts, the adaptation of speech to match children's understanding, and simultaneous verbal translation of shared practical activities all exemplify the role of adult mediation in enabling children to "open the language code". In addition to affective and practical-situational forms of pre-semiotic communication, Ivić identifies the emergence of sensorimotor intelligence as the third significant precursor to symbolic function. This aspect is crucial for the development of one of the essential semiotic properties: the ability to denote absent objects. This fruitful analysis of the origins of the symbolic function is followed by the detailed description and classification of the first semiotic behaviours and the beginning forms of symbolic function. A deep analysis of the theoretical foundations and empirical data and author's remarkable insights make this section of the book one of the most interesting and significant inputs to our understanding of the origins of symbolic behaviour in humans.

In the fourth part of the book, Ivić outlines the developmental pathways of the symbolic function, carefully analysing the distinctive characteristics of iconic and verbal semiotic systems and their influence on various developmental domains. On the one hand, relying on available research, the author illustrates the importance of the emergence of iconic systems for the construction of an individual's inner world. On the other hand, drawing on Vygotsky's theory and his well-known genetic law, he sheds light on the significance of cultural influences and language as the main symbolic system for the development of thought. The author provides convincing critical analysis on the crucial role of language, as primarily a means of communication, in the fixation and mental transformation of experiences, which, in turn, significantly enhances the development of thought, but also the construction of individual identity. In this way, Ivić elucidates the complex interplay and developmental intertwining of social and individual symbolic systems, highlighting their significance for the overall development of individual and specific cultures.

In the final chapter of this book, Ivić goes beyond merely supplementing the earlier content with new data. Instead, the author engages in a critical reassessment of the concepts he established decades ago. He reconsiders these ideas through the lens of recent research, particularly in various fields of neuroscience that explore social behaviour in both humans and animals. He discusses the evolution of the so-called social brain, focusing on the organic substrate that underpins complex forms of social behaviour, particularly cooperation, which is largely responsible for human evolutionary advancement. Ivić points out that contemporary research demonstrates that anthropoids are significantly more capable of understanding certain social relationships and communicating. However, he emphasises that his previous conclusion remains valid: such behaviours are still far from the third level of

the definition of symbolic function, which involves the creation of semiotic systems – a capability unique to humans. By combining the findings from neuroscience and the Theory of mind, he introduces the concept of triadic intentional communication as a central idea for explaining the development of symbolic function, and its key manifestations – speech, within everyday social adult–child mainly interactions. This communication is deeply rooted in the practical activities of both adults and children with specific objects. Ivić supports this assumption with extensive evidence from research on children’s language development, thus strongly opposing Chomsky’s idea of language as an independent module with its own genetic basis. In contrast, he further argues for the social origins of the entire symbolic function and language as its most significant manifestation, emphasising the importance of pre-semiotic forms of communication and the achievements of sensorimotor intelligence in its development. A particularly fascinating aspect of this section is the research that the author draws upon to expand his previous reflections on the early forms of symbolic function, its developmental trajectories and consequent influences on the individual and cultural development of mankind. Notably, Ivić illustrates his perspective on this quite important issue for the developmental psychologists using the examples of language and symbolic play development in children. If Freud claimed that dreams were the royal road to the unconscious, one might argue that for the true followers and experts of Vygotsky’s theory – of whom Ivić is undoubtedly one of the most significant – the development of language and children’s play could be considered as the royal road to understanding human development.

“Human as Animal Symbolicum” by Ivan Ivić presents a profound exploration of human existence through the lens of symbolism. It is a perfect example of an intellectually stimulating manuscript that not only occupies the readers’ attention, but also provokes their reflection on our own species and everything that humankind has created so far. In addition, it is a multi-layered study that can be approached from various perspectives, appealing to readers with a wide range of professional backgrounds. Ivić does not limit himself to knowledge from psychology. He draws on many other disciplines, including neuroscience, anthropology, evolutionary biology, cultural studies, and linguistics. This interdisciplinary approach underscores the immense value of the book. Still, it is predominantly a true treasure trove of knowledge in developmental psychology. Here, it is worth mentioning that the previous edition has shaped and inspired many “fortunate” generations of Professor Ivić’s students in Serbia. The English translation has made the book accessible to a broader scientific community. It is only natural to expect a significant impact of this book on the further development of knowledge about the exceptional phenomenon of symbolic function, as Ivić has proved with many arguments, inherent only to humans.