Book review

Review of Koshelev, Alexey. 2020.
On the Genesis of Thought and Language.
Translated by Alexander Kravchenko with Jillian Smith.
Moscow and Boston: Academic Studies Press

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Рецензия

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The recently published book by Alexey Koshelev addresses the fundamental questions of contemporary linguistic theory on the emergence of concepts and

propositions, the nature and structure of human categories and the impact of culture on thought and language. In seeking answers to these questions, the author engages in a stimulating and prolific debate with the leading views. Koshelev proposes a novel Evolutionary-synthetic approach to the study of human mental representations. The book is divided into three chapters and the following description summarizes the key ideas of the chapters.

Chapter 1 is devoted to the description of the evolutionary-synthetic approach and its framework. The notion of a concept is central to Koshelev's interpretation of language and thought interface. He argues about the importance of identifying elementary cognitive units in understanding knowledge representation and considers Paivio's theory of dual coding (Paivio 1971, 1973). According to this theory, units of two types constitute human knowledge – verbal units which store linguistic information and non-verbal visual units which store information about non-linguistic objects and events. Koshelev modifies this theory by suggesting two elements in human conceptual structure – visual and functional. For example, the concept of a banana has two types of coding – visual and functional units. Here the visual prototype corresponds to "an object of an elongated and slightly curved form, a little longer than a human hand, with a yellow skin and slightly mealy sweet flesh with a peculiar smell" and the functional one 'grows and ripens on a herbaceous plant; when ripe, used by humans as food that gives enjoyment by the taste of its flesh' (p. 11). These units are claimed to be elementary atom-like cognitive units which, of themselves, do not have any meaning, but being united by the relationship of common locus they become 'molecular' units which express meaningful parts of the reality. Engaging in various binary relations (predicative, adjectival, etc.), these meaningful parts create an architecture of a universal human representation of the observed world.

In developing his approach, Koshelev sides with the general development theory, according to which development involves a two-stage transformation of a whole homogeneous object into a system of its components. At the initial stage, the object is divided into parts, and then they are combined into a system. A child developing a mental representation of an object follows this process.

In Koshelev's model, the basic concept has dual structure "Prototype ← Function" and is simultaneously defined by two characteristics of essentially different nature: internal (functional feature) and external (visual mental image). Therefore, human categories are dual: they include two partially coinciding and closely interconnected object categories. This approach explains the author's view on the issue of proposing definitions of categories: they should contain a description of the protype of the object, as well as its functional component.

Chapter 2 "The genesis of human concepts and propositions. The initial stage of language. Aristotle and Chomsky on thought and language" describes the way humans form concepts and their relations, as well as propositions that connect them. Koshelev argues that concepts are not innate, and their actualization depends only on the child's accumulated experience. Here in his views he parts with scholars like Anna Wierzbicka (1996, 2015) and Stephen Pinker (1997), although their

understandings are not uniform either. He distinguishes an initial stage of the child's pre-conceptual mental representation development at which, for example, the object concepts 'a person', 'is running', 'road' become part of the whole locomotive situation and language is practically not involved at this stage. The emerging concepts have a complex structure (as discussed in Chapter 1) – an observable (perceptual) and non-observable (functional) components, but at the initial stages of child's development they are merged. These concepts are decomposed into more fragmentary components, that is properties and parts belonging to the successive levels in the development of basic concepts. Contrary to Anna Wierzbicka's (e.g., 1996) and Igor Melčuk's (2016) views, Koshelev stresses that these concepts are not decomposable into universal semantic primes which he regards as more elementary concepts of the same level of the concept development tree. In this logic, whole situations do not reduce to simpler situations, protoconcepts to simpler concepts, or concepts to simpler concepts. He claims that it is not concepts, but their approximations that are decomposed into semantic primes and that they are rough correlates given in definitions.

Koshelev distinguishes decomposition from interpretation. In his view, interpretations are not definitions as they play a different role. Interpretation is used as an informative point of entry, from which one can quickly find in the memory the exact concept – a cell with the corresponding concept in the conceptual matrix – and thereby understand it.

Between Aristotle's and Chomsky's view on language and thought interface, Koshelev sides with Chomsky. According to Aristotle, language is an instrument of thought in the way that language is a sound form that preserves the structure of the thought and does not have any content of its own. Chomsky's view is that language is an instrument of thought, a mental system, while its sound form, on which externalization of mental objects depends, is practically devoid of any content (Berwick and Chomsky 2016). Chomsky's and Koshelev's approaches share the following:

1) word-like atoms and the operation Merge (Berwick, Chomsky 2016: 111—112, 120—121) were the main innovations in human evolution,

2) objects external to language do not exist outside human consciousness because they contain components of the human mind,

3) propositions, like expressions, have a hierarchical structure and are indifferent to linear order.

The models, however, diverge in that Chomsky's Internal language is a generative computational system which forms expressions based on its internal principles without any external input. Koshelev's model of thought and language is not a generative one. Here the thought procedure forms propositions that meet the demand from the functional representation of the world. In accordance with its functions, this model is closely associated with the wide scope of human activities.

In Chapter 3 "The effect of culture on language: The case of the Amazonian tribe Pirahã" Koshelev discusses the question of the influence of culture on language using the data on the language of the Amazonian tribe Pirahã reported by

Everett (2008). He argues that culture of a society substantially affects its language. However, the effect of language on culture is quite selective and bears mainly on the level of civilization of the society and the content of its language. He claims that the emergence of professional activities in an ethnogroup is crucial to qualitative changes in the ethnogroup's mental representation of the world.

Koshelev's view is that the development of civilization within a society contributes to the development of the content component of its language – the expansion of its lexical and grammatical meanings. The main criterion of societal progress is the constant expansion of the kinds of activities the society engages in. Thereby the number of professional sublanguages related to new kinds of activities also keeps growing.

Koshelev puts forward a hypothesis about a possible further development of humans. He believes that the process of differentiation of professional knowledge will, at a certain point, be replaced by a reverse process: integration of professional knowledge, when each member of a certain group will be able to comprehend all the given types of professional knowledge.

He predicts an evolutionary leap of *Homo sapiens sapiens* that would ensure an explosive growth of human emotional, intellectual, and agentive abilities, commensurate with the explosive growth of these abilities that marked the transition from anthropoids to humans. Such a leap would transform *Homo sapiens sapiens* into *Homo syntheticus* or *Homo perfectus*. Because of such a leap, every member of this new people would be able to learn and develop not a single specific kind of professional activity but the totality of separate professional activities, along with professional knowledge and languages associated with these activities.

Homo perfectus will possess cognitive units much more abstract than human concepts – superconcepts which will be used to build representation of the world quantitatively more global and holistic than the current representation of the world. The emergent community of perfect people would become homogeneous, and its members would gain complete mutual understanding.

I read the book with considerable interest, and the materials reviewed in the book are of high quality. Koshelev's book is timely, intriguing and deep. It offers a novel view which attempts to explain the fundamental question in linguistic theory about the intersection of language and thought. It relates to the main existing views and offers a deep synthesis of the approaches. The book contributes significantly to the ongoing debate in the area of the origin of language and the language and thought interface.

Koshelev offers a thorough analysis of several linguistic examples. I think that Koshelev's model would benefit from the use and trial of the theory on various types of concepts and their definitions, including abstract concepts, emotions and speech acts, as well as time and space.

I strongly recommend the book as a valuable text for courses on introductory linguistics, semantics, philosophy of language, language evolution and language acquisition. It is a must read for academics and students interested in language and cognition.

REFERENCES

Berwick, Robert C. & Noam Chomsky. 2016. *Why Only Us: Language and Evolution*. Cambridge: MIT Press.

Everett, Daniel. 2008. *Don't Sleep, There are Snakes: Life and Language in the Amazonian Jungle*. N.Y.: Pantheon Books.

Melčuk, Igor. 2016. *Language: From Meaning to Text*. Moscow: LRC & Boston: ASP.

Pavio, Allan. 1971. *Imagery and Verbal Processes*. N.Y.: Holt, Rinehart & Winston.

Pavio, Allan. 1973. *Mental Representations*. Oxford: Oxford University Press.

Pinker, Stephen. 1997. *How the Mind Works*. N.Y.: W. W. Norton & Company.

Wierzbicka, Anna. 1996. *Semantics: Primes and Universals*. Oxford: Oxford University Press.

Wierzbicka, Anna. 2015. Innate conceptual primitives manifested in the languages of the world and in infant cognition. In Eric Margolis and Stephen Laurence (eds.), *The Conceptual Mind: New Directions in the Study of Concepts*, 379–412. Cambridge: MIT Press.

Bionote:
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