

## Special Issue 2020 Introduction

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The special issue of Linguistic Frontiers entitled Evolution of human capacities to know and act contains six papers, each of them approaching the topic from another perspective. The authors agree that the issue of evolution of human knowledge cannot be relegated to the domain of epistemology or any other discipline. But some of them place it within confines of interdisciplinarity while others prefer metadisciplinarity as their frame of reference, or even transdisciplinarity. Even though the papers are original and focusing on very different issues, they share a common interest to find interconnections between knowledge and methodology.

In his introductory article the invited editor prof. Mikhail Ilyin gives an overview of the ways to conceptualise and operationalise emergence and evolution throughout various disciplines and methodological approaches. He uses complex-simplex transformations to outline major models and their variations in subtler ranges of modules employed to identify, represent and understand phenomena of emergence and evolution. His point of departure is the mediating interface (Diracian membrane, brane etc.) of the inside and the outside of quantum making emergence and evolution possible with incessant material-energetic and information reciprocal embodiments and dis embodiments as vehicles of evolution.

The fundamental article by Bob Hodge represents a general overview of the knowledge as a part of the human activity, and as a potential subject of study by methods from social semiotics. The knowledge as an object of study in today's hyper-connected world might necessitate a change in the methodological paradigm in order to reflect in the best possible way the complex and complicated relation to knowledge as presented by modern science and in the today's transdisciplinary scientific world. Hodge demonstrates the productivity of meta-disciplines within meta-paradigm processes and he understands knowledge mostly as a result of an interconnection between biology, politics and linguistics (understood in particular in terms of semiotics and communication). As a consequence, knowledge appears to be a construct of more than just one external factors. Hodge resumes the history and trends in the philosophy

of science and he concludes by proposing social semiotics as a methodological tool for the understanding of knowledge as a process of transformations of relations between different kinds of research. Hodge suggests that Social Semiotics can work as a kind of "meta-toolkit" comprising multi-scalar analysis, whole-part analysis, transformations and multi-modality.

Ivan Fomin's paper goes in the continuity with Hodge's article in the way that it develops further the topic of social semiotics as a possible and still developing methodological tool for a theoretical description of the current trends in science and knowledge. Fomin describes different forms of social semiotics, he differentiates three particular sub-disciplines or ways of socio-semiotic practise: firstly, Systemic Functional Linguistics or Social Semiotics; secondly the Tartu-Moscow School and thirdly the semiotic sociology. Sociosemiotics is perfectly analyzed from many viewpoints: the history of the field, methods, problems and current state of art of the discipline. Linguistics represents an important part of Fomin's focus, language is seen as a "social fact". This understanding of language stems from structuralism and philosophy of ordinary language (Wittgenstein, Searle, Austin). Particular attention is dedicated to Tartu-Moscow school and its major figure, J. Lotman. Fomin's way of comprehension of social semiotics resides in approaching social actions in terms of intentional semiotic acts. The most fundamental point of this paper is a critical view to the field of social semiotics and the statement that its subdisciplines are underdeveloped and would benefit from further research in the field.

Suren Zolyan's work is a contribution to the overwhelming interdisciplinarity in theory and in practice. He directly applies the interdisciplinary viewpoint to a specific biological phenomena, concretely he applies the semiotic and linguistic methods to the notion of the genetic code. In particular, he is interested in the term of autopoiesis and its extension to the field of semiotics, in the manner that it becomes "Semio-poiesis". "Semio-poiesis" is a response to Barbieri's notion of code-poiesis. Differently from Barbieri, Zolyan does not comprehend the genetic code as a pure equicorrespondence of the two worlds,

but as a principle of contextual dependence or contextual sensitivity by the organic matter. Depending on its location and environment, the same molecular biosequence acquires different meanings and functional relevance. The semio-poiesis completes the insufficient definition of the genetic code in terms of signs, arbitrariness and code as a connection between two worlds. The semio-poiesis completes these characteristics with a notion of teleonomy and autopoiesis of living systems. Probably as a pioneer in this way of linguistic explanations of the genetic code, Zolyan extends the traditional linguistic metaphors by the principles of textuality, as well as contextual dependence. Text, textual semiotics and pragmatics thus results as crucial notions to be introduced to the already existing area of research of the intersections between linguistics and biology.

Anti Randviir's article about the concept of translanguaging explains this very concept as a semiotic behaviour of the transdisciplinary research. Randviir directs his work into a major developing of the notions of multimodality, metalanguage, code, information and redundancy. A precondition for a translanguaging as a semiotic process is the definition of semiotic entities as independent from the material embodiment. In terms of classical semiotic pioneers such as de Saussure and C. S. Peirce and also contemporary researchers in the domain of transdisciplinarity and translanguaging. The notion of translanguaging brings a new meta-theoretical framework for theoretical studies of interdisciplinarity.

Mark Pharoah's paper can be seen as a perfect closure of the special issue of *Linguistic Frontiers*. This paper is dedicated to human capacity to know in general. The author is extending his earlier work from 2018, where he presented three distinct and hierarchical 'categories of knowledge': replicating lineages and the environment (physiological category), utilisation of real-time experience and spatio-temporal subjective perspective (phenomenal category related to neural mechanisms) and conceptual knowledge or abstract thinking (conceptual, cognitive category). To the 2018 paper Mark Pharoah adds two main concepts omitted in the previous theory: language and equilibria. With Pharoah's work, the special issue can be concluded as an elaborate collection of various possible ways to semiotically analyse the evolution of human knowledge.