
LINGUISTICS ↔ SEMIOTICS

A Part Outside the Whole? (To Anton Zimmerling's article “Really: Syntactics Without Semiotics?”)

S. V. Chebanov^{a,*,**}

^a*Saint Petersburg State University, St. Petersburg, Russia*

^{*}*e-mail: s.chebanov@gmail.com*

^{**}*e-mail: s.chebanov@spbu.ru*

Received March 19, 2023; revised May 5, 2023; accepted May 5, 2023

Abstract—Before delving into the connections between linguistics and semiotics, it is essential to establish a clear demarcation between these fields, which necessitates a precise definition of each subject. However, the approach taken by Anton Zimmerling in this regard is subject to debate. For instance, in the discussion of semiotics, the focus tends to lean towards interpretations that recognize the dual understanding of signs, while unilateral conceptions of signs are often overlooked. Linguistics is typically confined to the study of language itself, and the treatment of linguistics concerning speech (text) is often seen as a concealed branch of philology. Moreover, it remains unclear whether the distinction between language and speech pertains to linguistics or philology. This ambiguity extends to the status of linguistic pragmatics. To address this issue constructively, it is useful to differentiate between five concepts encompassing language and speech: hermeneutics, philology, linguistics, semiotics, and pragmalinguistics. Each of these concepts delineates a specific ontology and corresponding methodological approach. By considering them as orthogonal axes within a fan matrix, one can identify 25 possible approaches for studying speech, including those that are currently employed and potential ones. Within this framework, philological linguistics, as discussed by Zimmerling, finds its place, and the transitions of scholars like Witzany from biohermeneutics to biopragsmalinguistics and Ongstad's shift from philology become more comprehensible.

Keywords: semiotics, philological linguistics, non-philological linguistics, hermeneutics, philology, pragmalinguistics, fan matrices, Witzany, Ongstad, biosemiotics

DOI: 10.1134/S1019331625600830

1. INTRODUCTION

The article under discussion is based on opposing linguistics as a natural science discipline studying the mechanisms of language as a formal system of symbols to semiotics that deals with bilateral units, an intention being expressed to dispense with semiotics in linguistics. Nevertheless, this is sometimes impossible and it becomes necessary to turn to semiotics as a field that operates with two-sided units. In this case, it is unclear why the opposition between linguistics and semiotics should be introduced at all (against the background of blurred boundaries of the disciplines) and why precisely this opposition is set (with unclear extents of understanding semiotics and linguistics, which makes their demarcation uncertain). Two interesting ideas are formulated against this background: the question of the correctness of attributing pragmatics to the sphere of language (rather than speech) and the division of linguistics into philological and non-philological linguistics.

2. LINGUISTICS (PHILOLOGICAL AND NON-PHILOLOGICAL) AND SEMIOTICS

Although the question of the relationship between linguistics and semiotics is raised, what is meant by semiotics and the sign is not entirely clear. It seems that the sign is understood as signs are regarded in European, Saussure's, linguocentric, bilateralist semiotics, and semiotics is understood as their consideration only in the aspect of semantics (without syntactics and pragmatics). This is evidenced by the following statements.

Section 0 begins by stating that “some elements of language are bilateral units (signs)” (Zimmerling, 2023, p. 125). This statement is only true for conventional European semiotics.

The point is that the sign (sign vehicle, representamen) is understood in American, Peirce's, logocentric semiotics as a unilateral unit (Morris, 2001, p. 47), due to which American semiotics can be qualified as unilateralist. C. Morris presents it as follows: “The process in which something functions as a sign may be

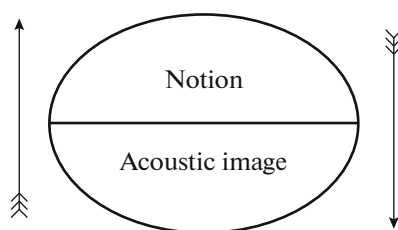


Fig. 1. Linguistic sign as a bilateral psychic entity (according to F. de Saussure).

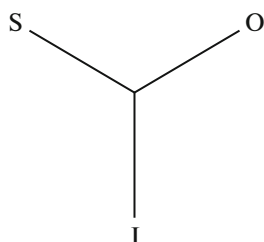


Fig. 2. Semiosis components as interpreted by Ch. Peirce and Ch. Morris: S is sign, O is object, I is interpretant.

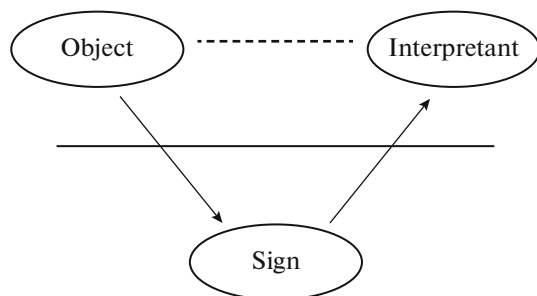


Fig. 3. A syncretic scheme representing components of the Peirce–Morris semiosis as vertices of the Ogden–Richards triangle.

called semiosis. This process... has commonly been regarded as involving three (or four) factors: that which acts as a sign, that which the sign refers to; and that effect on some interpreter in virtue of which the thing in question is a sign to that interpreter.” (Ibid.). And this interpretation is fundamentally important for Morris because of his affinity to the second and third positivism (see references to R. Carnap, H. Reichenbach, and A. Tarski (ibid., p. 63)) and sympathy for behaviorism (ibid., p. 49), which implies the avoidance of mentalism required to comprehend the interpretant. Thus, there is a counterintuitive situation in which American, more detailed semiotics deals with a unilaterally understood sign inextricably linked to semiosis (which is understood bilaterally, so to speak) while native European semiotics treats the bilaterally understood sign in a much less differentiated way and outside the process of semiosis.

The bilateral sign is graphically represented in “A Course in General Linguistics” (Saussure, 2023, p. 76) (Fig. 1).

Ch. Peirce and Ch. Morris do not have such original schemes, but their followers and commentators give such a scheme of the sign as they understand it (Nöth, Jungk, 2015, p. 665), which, in the author’s opinion, corresponds exactly to their texts (Fig. 2).

In this interpretation, the sign is a purely unilateral entity separated from the object and the interpretant.

A syncretic scheme combining the views of Peirce, Morris, Saussure, and Ogden–Richards and attributed to Peirce has become widespread, however (Ibid., p. 666) (Fig. 3). It relates the Peirce–Morris’s object and interpretant to Sossur’s concept (content plane), the Peirce–Morris’s sign to Sossur’s acoustic image (expression plane), which gives grounds for bilateralist interpretation of the American unilateralist understanding of the sign.

Due to the existence of different schools of semiotics, the statement that “semiotics is an extrapolation of any models of linguistic code to other types of communication” (Zimmerling, 2023, p. 126) can be attributed with a certain degree of validity to Saussure’s semiotics, but it is categorically inapplicable to Peirce’s semiotics. At the same time, the convergence of language and music “on the grounds that they presumably realize the same principles of syntax” (Ibid.) demonstrates that the limitation to semantics is not necessary for semiotics at all.

Another thesis proposed for discussion is the claim that “semiotics following (Lotman 1964) is understood as a program for describing all or most sign systems as secondary to natural language. The question of whether semiotics is a scientific discipline is not up for debate” (Zimmerling, 2023, p. 126). Thus, a special (and as it seems different from the understanding of Yu.M. Lotman) interpretation of secondary sign systems is given and it is argued that they are preceded by natural language. These issues are not discussed in “A Course of General Linguistics” (Saussure, 2023), and C. Morris considers signs in animals (Morris, 2001, pp. 47, 71–73), let alone that signs in microbes, plants and animals are now the object of biosemiotics, which has been rapidly developing for the last 30 years (see publications in Biosemiotics) and they cannot be preceded by human natural language. Therefore, this thesis is questionable, requires clarification and, if retained, limits the scope of relevance.

It is argued along with this that the concept of the sign as a bilateral unit proves to be indispensable at the interface of phonology and morphology and in the case of the dictionary description of lexical units (Zimmerling, 2023, p. 130).

Unfortunately, it is impossible to give a better description of what is understood by semiotics in this interpretation because neither American semiotics nor

semiotic studies conducted in the circles of R. Barthes, A. Greimas, J. Kristeva, U. Eco, K. Kull, etc., were apparently taken into consideration.

At the same time, modern semiotics worldwide, including European branch, is a rather complex fusion of American (Peirce's), European (Saussure's) and Russian (including Lotman) semiotics, and it is more or less common nowadays for this world semiotics to distinguish three aspects of semiosis—semantics, syntactics, and pragmatics ((Morris, 2001); cf. (Stepanov, 1985)). From the point of view of the present discussion, the title and subtitle of the book are mutually exclusive). And it is noteworthy that European, mostly bilateralist semiotics, even speaking of the syntactic relations of the content plane, refers to Ch. Morris's treatment of syntactics (Morris, 2001, p. 56), where the sign is understood unilateralistically (Ibid., p. 47), that is, it does not refer to the interpretant, with which the content plane of Saussure's semiotics can be partly correlated (Fig. 3).

The interpretation of language and linguistics given in the article opening the discussion is no less peculiar. It is assertion that "the subject of linguistics is not the text, but the *mechanisms* of language, e.g., ways of labeling some meaning, restrictions on combinations or linear orders of elements... and *units of language*, such as notional and functional words, roots, affixes, phonemes, etc." (Zimmerling, 2023, p. 128), while "the core of natural language corresponds to some formal language (Montague, 1974)" (Ibid., p. 127). This raises several questions.

First, what discipline this distinction between language and speech should belong to?

If either to linguistics or philology, then one of each pair of so hypothetically understood disciplines (i.e., either in linguistics or in philology) should have a section to introduce the distinction between language and speech, then between linguistics and philology as disciplines that study them, and also to describe in some detail, albeit from a bird's-eye view, what the dual discipline does (i.e., if the distinction between language and speech belongs to the field of linguistics, it should have a section on philology, and if this distinction belongs to philology, it should have a section on linguistics). Another option is to construct a new meta-discipline, in which the question of the nature of language and speech is considered (and why then not to follow L.V. Shcherba and consider the question of speech activity as well? Then the dyad of linguistics and philology will be supplemented to a triad apparently by psycholinguistics) and the status of linguistics, philology and again psycholinguistics is justified. Their subject matter, method, objectives, tasks, scope of understanding, etc. are described. At the same time, the study of the "mechanisms of language", that were discussed when defining the subject of linguistics, should be attributed to psycholinguistics, and the content of linguistics should be redefined.

Second, indicative is the correlation of the given interpretation of linguistics with the statement of A.W. Zimmerling already discussed that the concept of sign as a bilateral unit is indispensable both at the interface of phonology and morphology and in the description of vocabulary against the background of his assertion that "The science of natural language emerged in the early 20th century on the ground of a separation from the humanities, first of all *philology*, whose subject matter is *text* as a fixed verbal form" (Ibid.).

We cannot but agree with the factual state of affairs described above, but it can be interpreted in a completely different way. The early 20th century appears to be the time of depletion of Humboldt's doctrine of language that speaks man. The focus was increasingly on man who speaks language as was the case with the Young Grammarians. This attitude, while many specific regularities were being discovered, made linguistics an increasingly idiographic discipline. But the need for its nomotheticization gave rise, on the one hand, to the branch of linguistics which A.W. Zimmerling talks about (it is based on the excision of a narrower subject—linear orders of elements—which in the limit can be described by Montague's formal grammars), and, on the other hand, to F. de Saussure's semiology and C.S. Peirce's semiotics with a more generalized subject of study.

Third, with this in mind, at least two ways of relating linguistics and semiotics open up. It is possible to oppose them (as A.V. Zimmerling does), and then they appear to be juxtaposed on the same level of generality (which allows us to search for their boundaries), but it is also possible to consider linguistics to be a part of semiotics (which is allied to the author of this paper), and then it is impossible even to conceive of syntactics without semiotics, and it is possible only in some situations to consider syntactics without semantics and pragmatics.

Then the desire to associate linguistics only with the study of language opposing it to the study of speech, calls into question the validity of existence not only of text linguistics (Section 1.2), but of linguistic pragmatics as well. In the latter case, the attribution of considering a communicative situation (with all tools of its description such as communicants with their implicatures and illocutionary intentions, communication rules, locution, perlocutionary intentions and perlocutionary effects, performative force, etc.) to be in the sphere of linguistics is problematized.

In order to alleviate conceptual tensions arising from this formulation of the question, a distinction between philological and non-philological linguistics is introduced (Section 1.2) and, as noted above, it is argued that (non-philological) linguistics as a natural science that separated from the humanities emerged in the early 20th century (Ibid., pp. 127; this thesis and its

Table 1. Concepts of *slovesnost* (literary studies)

Characteristic	Concept				
	Hermeneutics	Philology	Linguistics	Semiotics	Pragmalinguistics
Semiotic tools	Symbol (Neoplatonists)	Trope	Historically determined sign	Sign	Set of semiotic tools
Dimensionality	Infinity	Multidimensionality	Unidimensionality		Necessary dimension
Relation to number	Arithmology	Neglect	Indifference	Interest in number	Quantitative methods
Purpose of referring to the text	Saving	Useful leisure time	Endowment with information	Information communication	Taking action
Semiotic model	Text of being	Encyclopedia	Dictionary	Thesaurus	Semantic network
Text status	Part of the world	Historical and artistic monument	Speech piece	Super sign	Activity component
Status of material, expression plane	Sacred	Traditional	Given	Arbitrary	Nonrandom
Effect of context	Meaningful increment of sense in context	Modification of sense in context	Focus on conceptual meaning	Potentially full context dependence, (sign value)	Interaction of contextual and invariant meaning
Methodological approach	Natural philosophy	Logical-epistemic		Systemic	System-action, integrated

corollaries were formulated much more toughly in the first version of the article).

However, this can be given not a historical (see above), but a much more fundamentally significant logical-typological interpretation.

It seems that there are five focal points of consideration of language and speech (of *slovesnost* (literary studies) where the inseparability of language and speech is fundamental against the background of their distinctiveness). They are hermeneutics, philology, linguistics, semiotics and pragmalinguistics, which can be traced at least in the European, Jewish, Arab-Muslim, Indian and Chinese traditions (Chebanov, Martynenko, 1990a; 1990b; 2007). Their main characteristics can be presented in Table 1.

The view of the subject being developed allows for monitoring the development of humanitarian (and not only) knowledge for more than three and a half decades, for assessing individual events and achievements, for identifying trends and tracing their dynamics in the fields related to both humanitarian and biological research (Chebanov, 1993; 1998; 1999 a, b; 2002; 2004; 2005; 2006; 2007a, b; 2008; 2009; 2010; 2011; 2012; 2014; 2017; 2018; 2019 a, b; 2020; 2022; Chebanov, Martynenko, 1990a; 1990b; 2007; Chebanov, Dmitrieva, 2009; Martynenko, Chebanov, Sherstinova, 1998), which enables predictions. For

instance, there has been talk for many years on this basis about the possibility of forming biopragsmalinguistics, which caused some skeptical irony of colleagues (as well as the talk about biohermeneutics). From this point of view, a good example is the story of G. Witzany who, in addition to mycology, studied philosophy with C.-O. Apel and gravitated towards biohermeneutics (for easier understanding (personal communication) calling it three-dimensional biosemiotics: (Witzany, 2006; 2007)), and now reoriented towards pragmatics (Witzany, 2014). This transformation of hermeneutic ideas into pragmalinguistic ones was visible as early as at the end of the 1980s (Chebanov and Martynenko, 1990b). Z. Ongstad has come from humanitarian problems through pragmatics directly into biopragsmalinguistics (Ongstad, 2019; 2021), and it can be traced how he had been coming to it (Ongstad, 2004; 2005; 2007; 2009; 2010).

At the same time, it is found that the techniques and ideas of one concept of *slovesnost* were used more or less regularly within the framework of another. From the methodological point of view, this situation is quite expected and is described by fan matrices (Veernaya matritsa, 2018; Kordonsky, 2001; 2011; Kordonsky, Chebanov, 1996). In this case, the comprehension of verbalization can be examined as follows (Table 2).

Table 2. *Slovesnost* consideration practices

Approach	Concept				
	<i>Hermeneutica Sacra</i>	Philology	Linguistics	Semiology	Pragmalinguistics
Hermeneutic	<i>Hermeneutica Sacra</i>	Church rhetoric	(Florensky, 1973)	Druskin's Triads (Vakulenko, 1990)	(Global restructuring on a different basis maintaining local structures)
Philological	(Averintsev, 1977)	Philology	Khlebnikov	Bakhtin	(Ratio of a part to the whole)
Linguistic	Bible linguistics	Linguopoetics	Linguistics	"Landmark events", emblems	(Ratio of a part to the whole)
Semiotic	Structural mythology (Ivanov, 1977)	Formalism; structuralism	School of Things and Words	Semiology	(Ratio of a part to the whole)
Pragmalinguistic	(Pragmalinguistic apologia of <i>Hermeneutica Sacra</i>)	(Pragmalinguistic text analysis)	(Communicative, psychodiagnostic, socio-psychological, etc. labeling of linguistic means)	(Communicative, psychodiagnostics socio-psychological, etc. functions of conventional sign)	Pragmalinguistics

Note: The table columns show established activities (if any), references to persons who presented relevant practices or their specific works. If a practice can only be imagined, it is described in parentheses. Given the issues discussed in this paper, the field of practices can be reduced (Table 3) although this would be a certain coarsening because there are also descriptions of ecclesiastical court (which ideally requires the involvement of *Hermeneutica Sacra* practices as well) among the texts under consideration.

Table 3. Discussed *slovesnost* consideration practices

Approach	Concept		
	Philology	Linguistics	Semiology
Philological	Philology	Khlebnikov	Bakhtin
Linguistic	Linguopoetics	Linguistics	"Landmark events," emblems
Semiotic	Formalism; structuralism	School of Things and Words	Semiology

Considering the issues discussed in this article, the field of practices can be reduced (Table 3) although this would be a bit of coarsening the texts discussed there also include descriptions of an ecclesiastical court (which ideally requires the involvement of practices of *Hermeneutica Sacra*).

In the logic being developed, it is unclear why word order (apparently in a sentence) and linear orders of elements are treated by A.W. Zimmerling as linguistics (Zimmerling, 2023, p. 128) while the linear orders of sentences and other supraphrasal unities, quite definite for different genres of oral and written speech (let alone their strict regulation in public, particularly official communication, including diplomatic converse, or documents with a rigid formal structure) and described by hypersyntax, should belong to philology, at least to cryptophilology, a disguised form of philology, in which text linguistics is qualified (Ibid., p. 129).

This raises the question of two understatements.

First, in Section 1.1. the author says that "The task of the linguist.... is to separate linguistic features proper from non-linguistic features, from what is related to the peculiarities of the given text, the given specific speech situation, the speech profile of the given informant, etc." (Ibid., p. 128), but he does not tell us how to do this. Moreover, the question arises as to how a morpheme, a word, or a threatening speech act can exist outside of this particular speech situation; can any of the above not be an addressee (cf. Ibid., p. 127, footnote 4) if we take into account a real speech behavior of native speakers and not some educational or game tasks? From the point of view of L.V. Shcherba (Shcherba, 1974) and modern cognitive linguists (Labov, 1978; Lakoff, 1986; Lakoff, Johnson, 1992), only the opinion of native speakers can be a source of information about the admissibility of a par-

ticular construction in a language, so that naive native speakers should be involved in judging the adequacy of language extraction from speech. How is this accounted for in the cited formulation of the linguist's task?

Second, it is unclear why the text is understood “as a fixed verbal form” (Zimmerling, 2023, p. 127)? On the one hand, it is not very clear what is meant by “fixed”? How fixed? Need it be a written text? Then is the text disconnected from speech? Or is it an oral text as well? How rigid is this fixity? Do the proclaimed properties of the text extend to variant texts (Doman-sky, 2006; Kovrigina, 2014), which are both traditional folklore and modern computer texts? Given the latter and the way they are generated, can they be separated from oral speech?

In general, the opposition set between linguistics and semiotics seems unproductive. At the same time, the fact that the reason for the failure to describe the syntactics of TI_1 is the lack of its dictionary description (qualified by the author as semiotic) seems to prove the failure to define the scope of linguistics rather than the fruitfulness of involving semiotics, and sooner gives grounds to consider as a way of correlating semiotics and linguistics not their juxtaposition at the same level, but the inclusion of the latter into the former.

Attention should also be paid to the fact that the consideration of problems such as the ones discussed here requires not only the rigor claimed by A.V. Zimmerling, but also the consistency of its implementation even in small details which, if neglected, can lead to groundless ambiguity of text interpretation (such as, for example, the absence of titles of columns in Tables 1, 2 and 3 or the use of “laboratory jargon” in the expressions “of type 2”, “of type 3” along with the correct “elements of ranks 1–3 in Table 3” (Zimmerling, 2023, pp. 133–134)). Meanwhile, overly strict use of terminology can lead to an inability to formulate a problem (especially when this formulation concerns very heterogeneous material or completely new ideas).

To conclude, we can say that this text itself indicates that the problem of the relationship between linguistics and semiotics and the boundaries of these disciplines is insufficiently articulated. A particular question, very interesting in the author's formulation, is whether the whole field of linguistic pragmatics belongs to language or to speech, or whether it is somehow distributed between them; in particular, what is the status of linguistic pragmatics in linguistics, including cryptophilological linguistics of text.

It seems impossible to answer these questions from within linguistics or within semiotics and it is necessary to move from field to field and/or to enter a meta-position. The question then arises what it is.

ACKNOWLEDGMENTS

The author is sincerely grateful to S.T. Zolyan, A.V. Zavorotishcheva, and M.G. Statsenko for their help in preparing the text for publication.

FUNDING

The study was supported by the Russian Science Foundation grant No. 22-1800383, the project “Interdisciplinary methodological basis for extended evolutionary synthesis in life and social sciences”, carried out at the Institute of Scientific Information for Social Sciences of the Russian Academy of Sciences.

CONFLICT OF INTEREST

The authors declare that they have no conflicts of interest.

REFERENCES

- S. S. Averintsev, *Poetika rannevizantiiskoi literatury* [Poetics of Early Byzantine Literature] (Moscow, 1977) [in Russian].
- S. V. Chebanov, “Biology and humanitarian culture: The problem of interpretation in biohermeneutics and hermeneutics of biology,” in *Lectures of Theoretical Biology: 2nd Stage* (Tallinn, 1993), pp. 219–248.
- S. V. Chebanov, “The role of hermeneutics in biology,” in *Sociobiology and Bioeconomics: The Theory of Evolution in Biological and Economic Theory*, Ed. by P. Koslowski (Springer, New York, 1998), pp. 141–172.
- S. V. Chebanov, “Bio-hermeneutics and hermeneutics of biology,” *Semiotica* **127** (1–4), 215–226 (1999a). <https://doi.org/10.1515/semi.1999.127.1-4.215>
- S. V. Chebanov, “Review of the book by Jesper Hoffmeyer (Jesper Hoffmeyer. *Signs of Meaning in the Universe*, Tr. by B. J. Haveland (Indiana Univ. Press, Bloomington & Indianapolis, 1997)); Zh. Obshch. Biol. **59** (2), 229–235 (1999b) (in Russian).
- S. V. Chebanov, “Bilateral biosemiotics: A problem of sense on a supertriplet level” in *Gathering in Biosemiotics-2* (Tartu, 2002), p. 11.
- S. V. Chebanov, “Semiotics of the contents and semiotics of expression: The role of sign's body,” in *Körper–Verkörperung–Entkörperung. Body–Embodiment–Dis-embodiment* (Kassel Univ. Press, Kassel, 2004), pp. 1132–1144 (CD).
- S. V. Chebanov, “Semantophores: A view of biosemiotics and pragmalinguistics,” in *Nauchnye chteniya–2004: Materialy konferentsii* [Scientific Readings–2004: Materials of the Conference] (St. Petersburg, 2005), pp. 243–252 [in Russian].
- S. V. Chebanov, “On the ultimate identity of hermeneutics, applied linguistics, and pragmalinguistics,” in *Ponimanie i refleksiya v obrazovanii, kul'ture i kommunikatsii* [Understanding and Reflection in Education, Culture, and Communication] (Tver, 2006), pp. 247–249 [in Russian].
- S. V. Chebanov, “The current situation in modern biosemiotics,” in *Biosemiotics in Transdisciplinary Contexts:*

- Proceedings of the Gathering in Biosemiotics 6, Salzburg 2006* (Vilnius, 2007a), pp. 133–141.
- S. V. Chebanov, “Communicative-glossematic conception of semiotic means (SM) as tool for explanation of understanding/misunderstanding,” in *9th World Congress of Semiotics* (Helsinki–Imatra, 2007b), pp. 107, 108.
- S. V. Chebanov, “Alternatives of biosemiotics,” in *8th Gathering in Biosemiotics* (Hermoupolis, 2008), p. 18.
- S. V. Chebanov, “Biosemiotics and biohermeneutics,” in *Nauki o zhizni i obrazovanie. Fundamental'nye problemy integratsii* [Life Sciences and Education: Fundamental Problems of Integration] (Moscow, 2009), pp. 340–344 [in Russian].
- S. V. Chebanov, “The status of semiotically conscious biology,” in *Filosofskie problemy biologii i meditsiny. Vyp. 4. Fundamental'noe i prikladnoe* [Philosophical Problems of Biology and Medicine, Issue 4: Fundamental and Applied] (Moscow, 2010), pp. 323–326 [in Russian].
- S. V. Chebanov, “Cognitive linguistics and pragmalinguistics as alternatives for the development of functional linguistics and their relation to hermeneutics,” in *Aktual'nye problemy sovremennoi kognitivnoi nauki: Mater. IV Vserossiiskoi nauchnoprakticheskoi konferentsii s mezhdunarodnym uchastiem (20–21 oktyabrya 2011 goda)* [Current Issues of Modern Cognitive Science: Materials of the Fourth All-Russian Scientific-Practical Conference with International Participation (October 20–21, 2011)] (Ivanovo, 2011), pp. 252–266 [in Russian].
- S. V. Chebanov, “Results of the development of biosemiotics,” in *Gatherings in Biosemiotics* (Tartu, 2012), pp. 174–175.
- S. V. Chebanov, “The course of hermeneutics in the cycle of specialized disciplines in the training of specialists in applied linguistics,” in *Vestn. Gumanitar. Fakul'teta Ivanovskogo Gos. Khim.-Tekhnol. Univ.* **7**, 87–96 (2014) [in Russian].
- S. V. Chebanov, “History and results of development of biosemiotics,” in *Gatherings in Biosemiotics 2017* (Lausanne, 2017), pp. 54, 55.
- S. V. Chebanov, “Steps towards the semiotic awareness of biology: Biosemiotics replacing the role of synthetic theory of evolution,” in *Eighteenth Annual Biosemiotics Gathering, June 17–20, 2018: Abstract Booklet* (Berkeley, 2018), p. 16.
- S. V. Chebanov, “Interpretation techniques in living organisms,” in *19th Annual Gathering in Biosemiotics* (Moscow, 2019a), pp. 15, 16.
- S. V. Chebanov, “Toward semiotically conscious biology: Biosemiotics replaces the synthetic theory of evolution,” in *Metod: Moskovskii ezhegodnik trudov iz obshchestvovedcheskikh distsiplin* [METHOD: Moscow Yearbook of Works from Social Science Disciplines] **9**, 151–173 (2019b) [in Russian].
- S. V. Chebanov, “The system of understanding techniques by G.I. Bogin,” in *Ponimanie i refleksiya v Rossii: Sbornik materialov dokladov na mezhdunarodnoi nauchnoprakticheskoi konferentsii (g. Tver', 29–30 noyabrya 2019g.)* [Understanding and Reflection in Russia: Collection of Materials of Reports at the International Scientific and Practical Conference (Tver, November 29–30, 2019)] (Tver, 2020), pp. 307–339 [in Russian].
- S. V. Chebanov, “Interdisciplinary course of lectures on biosemiotics for professionals,” in *Gatherings in Biosemiotics-2022* (Olomouc, 2022), pp. 36, 37.
- S. V. Chebanov and M. A. Dmitrieva, “Directions in interpretative biosemiotics,” in *9th Gathering in Biosemiotics* (Prague, 2009), p. 26.
- S. V. Chebanov and G. Ya. Martynenko, “The main types of ideas about the nature of language,” *Acta et commentationes Universitatis Tartuensis* **911**, 112–136 (1990a) [in Russian].
- S. V. Chebanov and G. Ya. Martynenko, “Ideas of hermeneutics in applied linguistics,” *Acta et commentationes Universitatis Tartuensis* **912**, 92–111 (1990b) [in Russian].
- S. V. Chebanov and G. Ya. Martynenko, “On the hermeneuticization of applied linguistics,” *Vestn. Tver. Gos. Univ. Ser.: Filologiya* **11** (207), 273–291 (2007) [in Russian].
- Yu. V. Domanskii, *Variativnost' i interpretatsiya teksta (paradigma neklassicheskoi khudozhestvennosti)* [Variability and Interpretation of the Text (a Paradigm of Nonclassical Artistry)], *Doctoral Dissertation* (Moscow, 2006) [in Russian].
- P. Florensky, “The structure of the word,” in *Kontekst 72. Literaturnoteoreticheskie issledovaniya* [Context 72: Literary and Theoretical Studies] (Moscow, 1973), pp. 348–375 [in Russian].
- Vyach. Vs. Ivanov, “On the semiotic theory of carnival as an inversion of binary representations,” in *Tr. po Znakovom Sistemam. 8. Uch. Zap. Tartu. Gos. Univ. [Sign Systems Studies. 8. Scientific Letters of The University of Tartu]* **411**, 45–64 (1977) [in Russian].
- S. G. Kordonsky, *Tsikly deyatel'nosti i ideal'nye ob'ekty* [Cycles of Activity and Ideal Objects] (Moscow, 2001) [in Russian].
- S. G. Kordonsky, *Veernye matritsy kak instrument postroeniya ontologii* [Fan Matrices as a Tool for Constructing Ontologies] (Washington, 2011) [in Russian].
- S. G. Kordonsky and S. V. Chebanov, “Fan matrices as a data representation model,” in S. V. Chebanov, *Sobranie sochinenii* [Collected Works], Vol. 1 (Vilnius, 1996), p. 80 [in Russian].
- L. Yu. Kovrigina, *Negaussovoe modelirovanie leksiko-statisticheskoi struktury variativnogo teksta: Na primere “Skazaniya o Mamaevom Poboishche”* [Non-Gaussian Modeling of the Lexical-Statistical Structure of a Variable Text: On the Example of “The Legend of the Battle of Mamai”], *Doctoral Dissertation* (St. Petersburg, 2014) [in Russian].
- W. Labov, “Denotational structure,” in *Papers from the Parasession on the Lexicon* (Chicago, 1978), pp. 220–260.
- G. Lakoff, “Classifiers as a reflection of Mind: The experiential, imaginative, and ecological aspects,” in *Noun Classes and Categorization* (Amsterdam, 1986), pp. 13–52.
- G. Lakoff and M. Johnson, *Philosophy in the Flesh: The Embodied Mind and Its Challenge to Western Thought* (New York, 1999).
- G. Ya. Martynenko, S. V. Chebanov, and T. Yu. Sherstino-va, “Text understanding and interpreting methodology based on linguistic and hermeneutic techniques,” in

- Proceeding of International Workshop TSD (Text. Speech. Dialogue), September 23–26* (Brno, 1998), pp. 21–26.
- Ch. W. Morris, “Foundations of the theory of signs,” in *Semiotika: Antologiya* [Semiotics: An Anthology], Ed. by Yu. S. Stepanov (Moscow, 2001), pp. 45–97 [in Russian].
- W. Nöth and I. Jungk, “Peircean visual semiotics: Potentials to be explored,” *Semiotica* **207**, 657–673 (2015).
<https://doi.org/10.1515/sem-2015-0058>
- S. Ongstad, “Bakhtin’s triadic epistemology and ideologies of dialogism,” in *Bakhtinian Perspectives on Language and Culture*, Ed. by F. Bostad, C. Brandist, L. S. Evensen, and S. Faber (London, 2004), pp. 65–88.
- S. Ongstad, “Context,” in *Encyclopedia of Linguistics*, Ed. by P. Strazny, Vol. 1 (New York, 2005), pp. 237, 238.
- S. Ongstad, “Positioning in theory: A methodological framework for MTE studies and beyond,” in *Research on Mother Tongue Education in a Comparative International Perspective: Theoretical and Methodological Issues*, Ed. by W. Herrlitz, S. Ongstad, and P.-H. v. d. Ven (Amsterdam and New York, 2007), pp. 119–148.
- S. Ongstad, “The concept of lifeworld and education in post-modernity: A critical appraisal of Habermas’ theory of communicative action,” in *Habermas, Critical Theory and Education*, Ed. by M. Murphy and T. Fleming (London, 2009), pp. 47–62.
- S. Ongstad, “Synchronic–diachronic perspectives on genre systemness: Exemplifying Genrification of Curricular Goals,” in *Genre and Cultural Competence: An Interdisciplinary Approach to the Study of Texts*, Ed. by S. Kvam, P. Langemeyer, and L. Patrick Knutsen (Berlin, 2010), pp. 35–50.
- S. Ongstad, “A conceptual framework for studying evolutionary origins of life-genres,” *Biosemiotics* **12** (2), 245–266 (2019).
<https://doi.org/10.1007/s12304-019-09358-8>
- S. Ongstad, “Can animals refer? Meta-positioning studies of animal semantics,” *Biosemiotics* **14**, 433–457 (2021).
<https://doi.org/10.1007/s12304-021-09401-7>
- F. Saussure, *Kurs obshchei lingvistiki* [A Course in General Linguistics] (Moscow, 2023) [in Russian].
- L. V. Shcherba, “About the triple aspect of linguistic phenomena and about the experiment in linguistics,” in L. V. Shcherba, *Yazykovaya sistema i rechevaya deyatelnost’* [Language System and Speech Activity] (Leningrad, 1974), pp. 24–39 [in Russian].
- Yu. S. Stepanov, *V trekhmernom prostranstve yazyka: Semioticheskie problemy lingvistiki, filosofii, iskusstva* [In the Three-Dimensional Space of Language: Semiotic Problems of Linguistics, Philosophy, Art] (Moscow, 1985) [in Russian].
- N. S. Vakulenko, *Metod ierarkhicheskikh triad kak sredstvo obosnovaniya formal’nogo podkhoda v prikladnoi lingvistike (na primere kompleksa uchebnykh programm)* [The Method of Hierarchical Triads as a Means of Substantiating a Formal Approach in Applied Linguistics (on the Example of a Complex of Curricula)], *Doctoral Dissertation* (Leningrad, 1990) [in Russian].
- Veernaya matritsa* [Fan Matrix], 2018.
https://ru.wikipedia.org/wiki/Веерная_матрица.
Cited March 1, 2023 [in Russian].
- G. Witzany, *The Logos of the Bios 1. Contribution to the Foundation of a Three-Leveled Biosemiotics* (Helsinki, 2006).
- G. Witzany, *The Logos of the Bios 2. Bio-Communication* (Vilnius, 2007).
- G. Witzany, “Pragmatic turn in biology: From biological molecules to genetic content operators,” *World J. Biol. Chem.* **5** (3), 279–285 (2014).
<https://doi.org/10.4331/wjbc.v5.i3.279>
- A. V. Zimmerling, “Really: Syntactics without semiotics?,” *Slovo. ru: Baltic Accent* **14** (3), 125–153 (2023) [in Russian].
<https://doi.org/10.5922/2225-5346-2023-3-9>

Translated by D. Svetsitsky

Publisher’s Note. Pleiades Publishing remains neutral with regard to jurisdictional claims in published maps and institutional affiliations. AI tools may have been used in the translation or editing of this article.