

РЕЦЕНЗИИ / REVIEWS

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**SEMANTIC STUDIES. SYNTACTIC AND SEMANTIC
DESCRIPTION OF BULGARIAN VERBS**

(Svetla Koeva (Ed). *Semantic Studies. Syntactic and Semantic Description of Bulgarian Verbs*. Sofia: Prof. Marin Drinov Publishing House of Bulgarian Academy of Science, 2024, ISBN 78-619-245-448-7. ISBN online 78-619-245-448-7.)

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**СЕМАНТИЧНИ СТУДИИ. СИНТАКТИЧНО
И СЕМАНТИЧНО ОПИСАНИЕ
НА БЪЛГАРСКИ ГЛАГОЛИ**

(Светла Коева (ред.). *Семантични студии. Синтактично и семантично описание на български глаголи*. София: Издателство на БАН „Проф. Марин Дринов“, 2024, ISBN 78-619-245-448-7. ISBN online 78-619-245-448-7.)

The collection of papers entitled *Semantic Studies: Syntactic and Semantic Description of Bulgarian Verbs* presents the outcomes of research conducted by the Department of Computational Linguistics at the Institute for Bulgarian Language, Bulgarian Academy of Sciences. This work forms part of the project *Enriching the Semantic Network WordNet with Conceptual Frames*, which focuses on integrating conceptual and lexical information with syntactic structures in which lexical units occur. The studies compiled in the volume reflect the broad spectrum of research questions addressed by the project and represent an important step forward in the syntactic and semantic

modeling of Bulgarian verbs. In pursuit of their objectives, the authors make a significant contribution toward elucidating the relationship between semantic structures and their syntactic realizations, with particular attention to the contemporary state of the Bulgarian language. Their findings lay the groundwork for a more comprehensive (in terms of data volume) and enriched (in terms of informational depth) representation – something that has not previously existed for Bulgarian.

The collection was published at the end of 2024 by the Prof. Marin Drinov Academic Publishing House of the Bulgarian Academy of Sciences. It is edited by Dr. Svetla Koeva and reviewed by Dr. Atanas Atanasov and Dr. Rositsa Dekova. The volume includes a preface and six scholarly articles – two written in English and four in Bulgarian. Each contribution is accompanied by summaries in both English and Bulgarian, ensuring accessibility to a broader academic audience.

The preface, authored by Svetla Koeva, outlines the objectives of the overarching project and highlights the specific contributions of each individual study. The papers are thematically grouped into three key areas. The first section focuses on theoretical generalizations regarding the system of semantic classes of nouns, aimed at enabling a nuanced description of the potential combinations between verbs and nouns in various syntactic positions (contributions by Svetla Koeva and Valentina Stefanova). The second section (with papers by Svetlozara Leseva, Ivelina Stoyanova, and Tsvetana Dimitrova) explores the system of conceptual frames. It offers theoretical insights into the conceptualization of various predicate types and examines their correlation with grammatical realization and semantic compatibility. The third section includes studies by Maria Todorova and Hristina Kukova, and is dedicated to the complex representation of semantic information through detailed theoretical generalizations.

The first paper, authored by Svetla Koeva in English, is titled *Extended Ontology of Noun Semantic Classes*. The study proposes an efficient classification framework for noun classes, aimed at facilitating the identification of syntagmatic combinations between verbs and nouns. It provides a concise overview of existing semantic classifications in *WordNet* (Miller et al., 1993), *Corpus Analysis Models* (Hanks, 2012), and *FrameNet* (Fillmore & Baker, 2010), with a particular focus on verb-noun compatibility. By aligning relevant *WordNet* synsets with the semantic types defined in *Corpus Analysis Models* and *FrameNet*, along with the selectional preferences of *VerbAtlas* (Di Fabio et al., 2019), the study constructs an extended ontology of noun semantic classes. The paper's contribution lies in its detailed account of the methodology for selecting appropriate semantic classes whose members

are syntactically compatible with particular frame elements. Through abstract semantic modeling, the study offers theoretical generalizations concerning the ontological description of semantic verb classes, the system of semantic and conceptual frames they inhabit, and the complex representation of semantic information.

The second paper, titled *Body Part as a Semantic Feature*, is written in Bulgarian by Valentina Stefanova. It focuses on the analysis of the frame element *Body_part* as a semantic feature relevant to the analysis of the semantic frames. The study extracts verbs conceptually characterized by frames incorporating the core frame element *Part_of_Body*, and maps them to verb synsets in the English *WordNet*. A method is proposed for grouping associated nouns through semantic types derived from *Corpus Pattern Analysis* (Hanks, 2004). The study conducts a careful examination of these verbs to identify more specific noun types linked via corresponding semantic categories and their syntactic realizations. An additional criterion for such classification is the semantic frame that governs the verb's usage in a given context.

The third paper, titled *Verbs of Communication: Validation of Conceptual Frames in Corpus Data*, is written in English by Svetlozara Leseva and Ivelina Stoyanova. The study explores verbs of communication, with a focus on predicates associated with several core semantic frames from *FrameNet*. The analysis centers on the semantic properties of these verbs and their valency patterns, which capture both the combinatorial possibilities and syntactic realizations of frame elements in English and Bulgarian. The research draws upon two principal semantic resources: The *Princeton WordNet* along with its Bulgarian counterpart *BulNet* (Koeva 2021), and *FrameNet*. This contribution investigates the organization of verbal lexicons used to express (spoken) communication, presenting the semantic field as a hierarchically structured system of frames that inherit and refine the core elements of the prototypical *Communication* frame. Drawing on corpus data from *SemCor* for English (Miller et al. 1993b) and *BulSemCor* for Bulgarian (Koeva et al. 2006), as well as parallel examples from the *Bulgarian-English Sentence- and Clause-Aligned Corpus* (Koeva et al. 2012a), the authors analyze the semantic properties and syntactic realizations of verb groups across several representative *Communication* frames. The study highlights both universal and language-specific aspects of semantic and syntactic encoding, and addresses the transferability of these descriptions across languages. It also examines key similarities and differences among communication verbs within English and between English and Bulgarian equivalents. The findings are supported by an appendix comprising 20 tables

that synthesize valency patterns and syntactic realizations of primary frame elements. The results serve to validate the appropriateness of the frames assigned to the examined verbs.

The fourth paper, *On the Nature of Possessors*, authored by Tsvetana Dimitrova, investigates the various means of expressing the possessor function through nouns of specific semantic classes, in accordance with the requirements for implementing this function within *FrameNet* semantic frames. Following a concise overview of the concepts of *possession*, *possessor*, and *possessed*, the author examines how these notions are modeled in two semantic resources: *WordNet* (and its Bulgarian equivalent *BulNet*) and *FrameNet*. Using corpus examples of prototypical predicates from four frames related to the transfer of possession, the study traces the syntactic realization of the frame element *Recipient*, and proposes a principled approach for identifying suitable lexical candidates for this role.

The fifth paper, *On the Semantic Class of Verbs for Contact by Displacement*, written by Maria A. Todorova, presents an analysis of a subset of *WordNet* verbs classified as *Verbs of Contact*, which are common in Bulgarian. The focus is on a specific subgroup – *verbs of contact combined with movement* – including actions such as attaching, detaching, inserting, removing, filling, and emptying. The proposed semantic-syntactic description outlines the frame elements of the corresponding *FrameNet* frames and their syntactic realizations. The study proceeds from the premise that the conceptual frame for contact verbs involves events in which two or more entities come into physical contact. Based on manual verification, refinement, and extension of the semi-automatically mapped data from *WordNet* and *FrameNet*, the paper proposes a methodology for identifying, systematizing, and classifying contact verbs into semantically and syntactically coherent subclasses.

The sixth and final paper, *Basic Perceptual Frames and Complex Representation of Semantic-Syntactic Information*, authored by Hristina Kukova, focuses on perceptual verbs and their conceptual modeling in Bulgarian. The study offers an analytical overview of perceptual verbs and their language-specific characteristics, applying the methodology of frame semantics to demonstrate the range of syntactic constructions in which these verbs appear. The analysis includes lexical, morphological, and frame-based information about the predicates, alongside data on the selectional constraints of frame elements, represented through specific *WordNet* synonym sets. Corpus-driven in nature, the study provides empirically grounded insights that underscore the semantic and contextual specificity of the analyzed verbs. Particular attention is given to the interaction between lexical-semantic features and the syntactic

behavior of both predicates and their frame elements. The study proposes a systematization of possible semantic constraints within verb subclasses, contributing to a coherent and comprehensive understanding of the theoretical and empirical dimensions of the data.

The overview of the six papers included in the volume clearly demonstrates the depth, precision, and scholarly value of the research. Collectively, the studies offer significant insights into the semantic structure and syntactic realization of frame elements in contemporary Bulgarian. Moreover, the conceptual descriptions proposed by the authors have important implications for modeling semantic relations between lexical units and frame elements.

Beyond its relevance for computational applications, the research presented in this volume also holds significant pedagogical value. The detailed semantic-syntactic analyses and the development of conceptual frames provide valuable resources for language instruction, particularly in enhancing learners' understanding of lexical meaning, argument structure, and verb-noun combinatorics. The incorporation of frame semantics into educational contexts can support more nuanced approaches to teaching Bulgarian and other languages, especially with respect to developing linguistic intuition about meaning in context. These findings may also inform curriculum development in areas such as semantics, syntax, computational linguistics, and lexicography, offering concrete examples and data-driven insights that bridge theoretical models and practical teaching strategies.

I found the volume particularly inspiring because of its relevance to the fields of lexical semantics, language education, and foreign language acquisition, where it offers both theoretical insight and practical value. The integration of formal linguistic theory with corpus-based evidence opens up meaningful pedagogical possibilities – especially for those involved in foreign language teaching. The structured treatment of verb semantics and syntactic patterns could greatly support the development of learner materials that foster deeper grammatical awareness and semantic precision. Furthermore, the cross-linguistic comparisons between Bulgarian and English enrich the discussion and provide an excellent model for contrastive analysis, which is crucial in both language teaching and learner comprehension. This collection offers not only scholarly depth but also practical utility, and it invites educators to think more creatively and systematically about how language is structured, used, and taught.

In conclusion, *Semantic Studies: Syntactic and Semantic Description of Bulgarian Verbs* is a thoughtfully curated and methodologically rigorous collection that significantly advances our understanding of the interaction between syntactic structures and semantic frames in the Bulgarian language. It

is a noteworthy achievement that solidly fulfills the objectives of the underlying project and opens avenues for future research in Bulgarian lexical semantics and beyond. The volume not only addresses critical theoretical questions in linguistic analysis but also contributes practical solutions relevant to natural language processing and language education. The clarity of exposition, the consistency of the theoretical framework, and the empirical grounding of each study collectively ensure that the volume will serve as an essential reference for linguists, computational researchers, educators, and students alike.

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