

## SHORT REVIEW

with regard to the competition for the academic position of associate professor in professional direction 2.1. Philology, scientific specialty "General and Comparative Linguistics" for the needs of the Computational Linguistics Section, according to the announcement in the "State Gazette", no. 102 of 23.12.2022

Applicant: Tsvetana Ivanova Dimitrova, Ph.D., Ch. assistant at the Institute for Bulgarian Language "Prof. Lyubomir Andreychin" at the BAS

Reviewer: Maxim Ivanov Stamenov, Ph.D., professor at the Institute for Bulgarian Language "Prof. Lyubomir Andreychin" at the BAS

### **1. General characteristics of the presented materials – monographs, articles and reports, textbooks, dictionaries, etc.**

From the report on the implementation of the national minimum requirements under Art. 2b, para. 2 and 3 and the requirements under Art. 2b, para. 5 of ZRASRB, respectively and according to Art. 1a of PPZRASRB (Appendix A to the Regulations for the terms and conditions for acquiring scientific degrees and for holding academic positions in the IBE at the BAS) of Tsvetana Ivanova Dimitrova, it is clear that she fulfills them with a total of 725 points at a threshold of 595 points.

She presents as a habilitation thesis a monograph on the topic of *Bulgarian clitics: history and present* (BAS Publishing House "Prof. Marin Drinov"), as well as her dissertation for the scientific degree "doctor" published as a monograph (Dimitrova, T. *The Old Bulgarian Noun Phrase: Towards an Annotation Specification*. VDM Verlag Dr. Muller, 316 p.).

She is the author or co-author of 10 articles and reports, as well as 2 studies published in scientific journals, referenced and indexed in world-renowned databases of scientific information, 6 articles and reports in non-refereed peer-reviewed journals or in edited collective volumes 2 published chapters in collective monographs. The total number of articles and studies on Dr. Dimitrova's procedure equals 20 publications. She reports 10 citations or reviews of her works in scientific publications, referenced and indexed in world-renowned databases of scientific information or in monographs and collective volumes. Her participation with reports at scientific forums for the period 2012-2022 is 38. The submitted works are original and plagiarism is not found anywhere.

## **2. General characteristics of the candidate's scientific and scientific-applied activity**

Dr. Dimitrova's habilitation thesis reviews the positions and behavior of clitic elements (pronominal and verbal clitics, as well as the lost discourse clitics *zhe* and *bo* and the interrogative *li*) in the historical development of the Bulgarian language. It outlines the main positions of the clitic elements under consideration, both relative to each other in the composition of the clitic complex, and relative to their neighboring elements, which are constituents of the sentence and/or phrase. The observed variability in the data from different historical periods is associated with changes in some functional elements (such as the position of negation) and verb forms. The observations and conclusions were made on a collection of examples extracted from written monuments from the Old Bulgarian, Middle Bulgarian and early New Bulgarian periods of the development of our language, as well as from dialectal and colloquial speech, and examples from literature.

The scientific and scientific-applied activity of the candidate is mainly concentrated in two directions: articles and studies on topics related to language resources, computer modeling of language, and articles and studies discussing issues related to the development and use of historical corpora and description of historical linguistic data.

For the period 2008 – 2022, she took part in a total of 16 projects, in two of which she was the scientific supervisor: (1) "Semantic classification of adjectives in the Bulgarian Wordnet (May 2016 - July 2017)", a project under the Program for the Support of the young scientists at the BAS, scientific supervisor of Assistant Professor Valentina Stefanova; (2) "Automatic Recognition of Named Objects in Bulgarian and Czech (2014 – 2016)", bilateral project of the Institute of Bulgarian Language of the Bulgarian Academy of Sciences and the Institute of Czech Language of the Czech Academy of Sciences, project leader. In thirteen projects she was a participant, and in one she performed the function of an annotator.

## **3. Analytical assessment of the main scientific and/or scientific-applied contributions of the candidate**

In the habilitation work, the description of the main positions of the interpreted clitic elements within the clitic complex and in view of their neighboring elements, which are constituents of the sentence and/or phrase, is a contribution. The hypothesis proposed by the author about the relative stability of the syntactic positions of the clitics in the sentence - relative to the left sentence boundary and relative to the verb, is confirmed, at the expense of the changes in the composition of the elements, which are expressed in the dropping of some clitic elements (the discourse clitics *ne* and *bo*) and the expansion of the composition of pronouns (with the



development of dative and accusative clitic pronouns) and of verbal clitics. The observed variability in the data from different historical periods is associated in the author's interpretation with changes in some functional elements (such as the position of negation) and verb forms. Variability of the positions of the clitic elements, however, is observed in all periods of the development of the language, where, in addition to the prevailing positional patterns, a number of deviations from them are found. An explanation for the observed picture can be found in the proposed hypothesis for the derivation of clitic elements in different positions in the syntactic structure. In this regard, the assumption is made that clitics can be both dependent on the verb whose argumentative requirements they satisfy (such as the accusative pronominal clitics) and can be realized rather at the level of the sentence (such as the discourse clitics in the Old Bulgarian period clitics, and in the modern Bulgarian language there are probably some dative clitics and possessive clitics that do not depend on the verb). The linguistic examples extracted from various written monuments, on which the observations are made and the conclusions are made, are offered for free access and can also serve for the purposes of other studies. The candidate did an excellent job with the given task. A particularly good impression is made by mastering and handling the terminological apparatus and tools of generative grammar in combination with expertise on the problems of the history of the Bulgarian language.

Several papers from the candidate's peer-reviewed output also interpret individual questions related to clitic elements, their positions and behavior (6 papers in total). They present various stages of the work on the topic of the habilitation thesis and consider various aspects of the development of the clitic system in the Bulgarian language, including those related to the stages of the reanalysis of the dative elements outside the noun phrase (i.e. at the level of the sentence), where the initial changes can be traced precisely in the appearance of the short forms of the pronouns outside the noun phrase in the dative case in the so-called constructions with external possessor.

A series of publications are related to the presentation of language material for the purposes of formal description and, above all, to the inclusion and description of the relevant elements in a series of language resources (for the Bulgarian WordNet, the Bulgarian National Corpus, etc.). Among them there are those that reflect separate stages of the work on two scientific research projects related to the expansion of language resources, in which data about the Bulgarian language will be included. According to the project "Semantic classification of adjectives in the Bulgarian WordNet" Tsv. Dimitrova was scientific supervisor of V. Stefanova. It formulates a classification of adjectives in WordNet, which is applied to the Bulgarian WordNet with the aim of enriching it with additional information about the concepts and the

relationships between them. Here the contributions of Tsv. Dimitrova are related, in addition to the scientific guidance, to the description of the data (the assignment of semantic classes to the adjectives in the Bulgarian WordNet) and to the argumentation of the principles for the application of classification at several levels (three joint publications). The activity of the project "Semantic network with a wide range of semantic relations" (DN 10-3 / 14.12.2016, financed by the National Institute of Scientific Research) is also reflected in a series of publications, of which four have been submitted for participation in the competition. In them, the work on formulating and assigning additional semantic (and morphosemantic) relations between nouns and verbs and between nouns in WordNet, as well as additional semantic classes, again to nouns in WordNet, is a contribution.

Among the reviewed works, we also find contributions on topics related to the formulation of additional morphosemantic relations to verb-noun pairs, related to Agent and Undergoer relations and with an applied strategy for transferring the word-forming and morphosemantic relations between noun and verb and noun and adjective to (new) relations between nouns based on already available information.

#### **4. Conclusion**

The scientific production and contributions of the candidate meet all the requirements of the ZPRASB, the Regulations for the Implementation ZPRASB, the Regulations for the Terms and Conditions for Acquiring Scientific Degrees and for Holding Academic Positions in the Bulgarian Academy of Sciences, the Regulations for the Terms and Conditions for acquisition of scientific degrees and for holding academic positions at the Institute for Bulgarian Language "Prof. Lyubomir Andreychin". Bearing in mind the above, I strongly recommend the honorable Scientific Jury to award Ch. Assistant Professor Tsvetana Ivanova Dimitrova, PhD, the academic position of *associate professor* in professional field 2.1. Philology, scientific specialty "General and Comparative Linguistics".

18.04.2023

Signed:

(M. Stamenov)