

Structural differences of syntactic models in Russian and Chinese

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Abstract. For many centuries of scientific existence linguistic researchers and philosophic leaders have been trying to establish a rigid determination of linguistic concepts. Theories of formal generative grammar provide the opportunity for logically proved abstract models. Such models allowing to reflect the typological features of Chinese and Russian syntactical structures in the most accessible way. According to the language morphological classification, the world's languages are divided into four morphological groups: a. inflectional languages, b. agglutinative languages, c. isolating languages, d. incorporating languages. The Chinese language is related to the morphological group of isolating languages as it produces poor methods of morphological inflection and strong significance of the word order in a sentence. The morphological structure of the Russian language which belongs to the inflectional morphological group is opposed to it. The current paper aims to present typological differences between the two comparable languages in terms of generative linguistics. The generated research produces two typological schemes of structural differences between the analyzed languages. The analysis is supplied with certain examples of language usage in both linguistic cultures.

Keywords: theory of actual sentence division, the predicative concept of a language, information structure, the Chinese language, the Russian language, generative grammar, derivational tree

1 Introduction

The theory of generative syntax (transformational grammar, generative grammar, Chomskyan linguistics, generativism) is traditionally perceived by Russian linguists as extremely complex, based on many non-obvious assumptions. A number of its basic postulates seem obvious beyond any reasonable doubt. The generative syntax is beneficial in terms of its possibility to produce a single structural derivation that can combine several syntactic aspects into one derivative scheme. The derivational method of syntactic interpretation is relevant for languages of any morphological structure. The present study aims to compare the derivational structures of two analyzed languages that belong to different typological types – Russian and Chinese.

1.1 The theory of Actual Sentence Division

The theory of the Actual Sentence Division originated within the framework of various linguistic paradigms. The Prague Linguistic Centre was founded in 1926. Its linguistic leader, Willem Mathesius (1882–1945), singled out the starting point of the statement (the theme) and the core of the utterance (the rheme). The theme is understood by the listener using the given context, whereas the rheme is the newly reported information

about the theme. At the end of the XX century, Kurdyumov V.A. conducts significant research on the issues of Chinese linguistic structures. The researcher formalizes the basis of a predicative concept of a language [1]. The new predicative theory is another ontological stage of the theory of actual sentence division.

1.2 The information structure of a sentence

A. Nielman and G. Van de Kut draw attention to a serious omission found in generative syntax theory. This omission allows the theory to place grammar in an isolated position from the system of linguistic use. In the 90s of the 20th century, new series of research have been held in the field of generative syntax. These theories base their sentence construction models on the theory of grammar: B. Pritchett (1992), K. Philips (1996), D.A. Schneider (1999) [2]. The importance of grammar theory in creating sentence models is quite evident as the basic syntactic structures are established by the rules of their morphological order.

2 Problem Statement

Despite the growth of scientific theoretical works [1, 2], there are still very few methodological recommendations

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and practical manuals for teaching Chinese according to the concepts of actual sentence division, or the predicative concept of a sentence. Several textbooks written by Zhao Yuanren, C. Li and S. Thompson, and V.A. Kurdyumov base their methodology on the Chinese topical nature, i.e. the analysis of topic structures in Chinese [3]. The listed papers are of high theoretical significance. However, they are not quite suitable for teaching a practical Chinese language course. Nowadays it seems obvious to develop a new methodology for teaching Chinese according to the principles of the predication concept. In addition, it is necessary to rebuild the whole system of practical courses in the Chinese language which is mainly based on the concepts of European grammar.

2.1 New perspective of the theory of Actual Sentence Division

In 1982 Chafe W. introduced a new cognitive scale of verbal activation. According to his view, information can be passed/ perceived in one of the three conditions, i.e. active, semiactive, and inactive. These three conditions are relevant to the terms – given, accessible, and new [2]. Active information attracts the focus of the recipient's attention. Semi-active is the information that has been recently in the focus of the audience's attention, or that is somehow connected with the current information. All the other set of information is defined as inactive.

2.2 The Information Structure of a sentence

The information structure is a generalized network of syntactic activation that reflects structural aspects of either its availability or emphasis [4]). Many linguists suppose that the main function of information structure is to adapt the stated message to the recipient using the correct word order. In other words, the information structure allows the message to be properly formed in terms of grammar for its further perception by the recipient. The information structure defines the gradual concepts of availability or emphasis, which are decoded within the framework of a sentence.

3 Research Questions

The linguistic analysis of typologically different languages makes one of the leading strategies today. The performed analysis is indispensable for developing a new methodology for Chinese language acquisition by Russian-speaking learners. The established types of Chinese structures may lay the basis for further classification that fully reflects the typological aspects of the verbal decoding system in Chinese. The question is raised about the possibility of creating a coherent, verified, and self-sufficient method of Chinese syntactic description without resorting to the ways of Indo-European grammatical tradition [5].

3.1 Dependency Structure and Component Structure

Most syntactic theories are based on the dependency structure and the component structure. The same idea is viewed in the linguistic task of establishing the roles of the main and dependent words in a phrase or dividing the sentence into its constituent members. Formal grammars use binary structure to depict the hierarchy of the derivation schemes (Fig. 1).

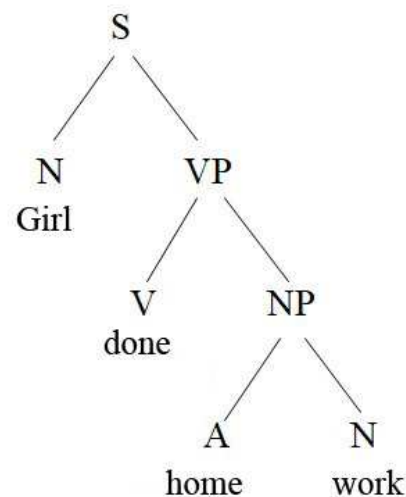


Fig. 1. An example of a binary structure.

Converging branches of the tree in Figure 01 combine words into groups, and each group is named after the main word. If a noun (N) depends on a verb (V), then a verb phrase (VP) is made. If the adjective (A) depends on the verb (V), then a noun phrase (NP) is formed. The constructed hierarchy displays the syntactic relations between the dependent and component elements of a sentence. The top of the derivational tree is named after the main element which is a verb (VP) in most formal grammars.

3.2 Syntactic layers of Information Structure

The hierarchy structure of the derivational tree is represented by three layers. At the initial stage, the concept-intentional systems fill in the predicate-argument frame. Its function is to compose lexical units into phrases using connecting operations. At the stage of the tense-aspect and modal frame, the number of candidate forms is reduced to one. The communicative frame is filled in later. It establishes coordination operations within the Extended Projection Principle in the Tense domain (EPP-T).

4 Purpose of the Study

The present work aims to compare the derivational trees of two typologically different languages – Russian and Chinese. The theoretical basis of the work is set by Slyusar's manual "At the intersection of theories:

grammar and information structure in Russian and other languages" [6] and Kalikova's publishing "Activation model or meaningful encoding of grammar aspects in a Chinese sentence" [1]. Taking into consideration the typological differences of the analyzed languages [7], the authors of the current paper expect to establish the areas of structural similarity and diversity.

5 Research Methods

The research methods of the current study include methods of collecting data, descriptive analysis, comparative observation, and data distribution.

6 Findings

Slusar's detailed description of the Russian configuration model seems attractive in terms of its ability to combine the typological features of the analyzed language. Describing the gradual transformation of speech intention into a chain of verbal means, it seems possible to show the way of the meaning transformation (conceptual-intentional system) into the verbal grammatical forms (grammar level). Taking into consideration the general laws of the syntax of a particular language, the author distinguishes all possible structural movements and syntactic regenerations into 2 types. The first movements are achieved through consistent features. The second movements, known as information-structural movements, are regulated on the conceptual-intentional stage. Both the first and second movements correspond equally to the language grammar rules.

6.1 The derivational tree of a Russian sentence

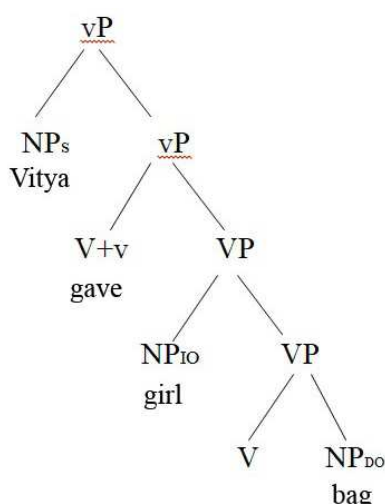


Fig. 2. The predicate-argument frame of a Russian sentence.

The neutral word order of the Russian language is presented by the subject followed by the predicate made up of a verbal phrase – {V - IO - DO}, where V is a verb, IO is an indirect object, DO is a direct object. To attach two dependencies to one verb, Larson R. [9] proposed to divide the verb into two tops, where V

attaches a DO (direct object), and v attached the entire component of the first verbal phase (VP). The verbal dependency of the Russian predicate is viewed in Fig. 2.

The next stage is followed by the fulfillment of the T-domain, which combines both the tense-aspect and modal frames. The Extended Projection Principle in the T-domain and the aspect completeness are accompanied by the necessary movements of external arguments (agents or exploits) in the Russian language. The subject of a sentence is considered an external argument whereas the direct and indirect objects are its internal arguments (Fig. 3).

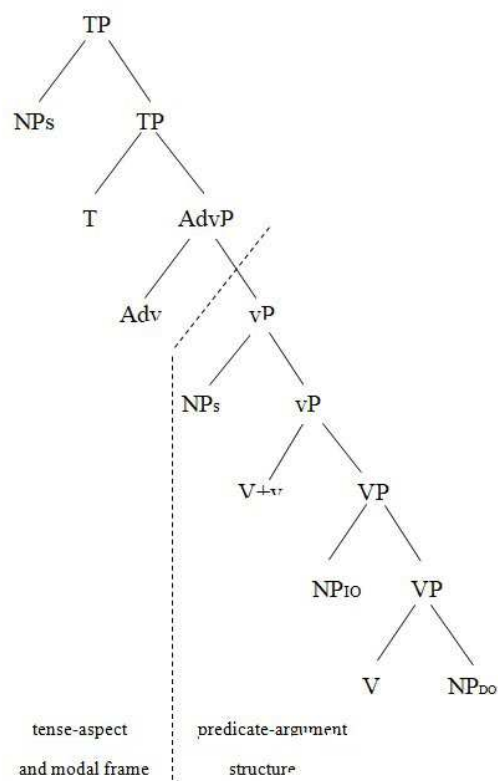


Fig. 3. The activation frames of the Russian derivational tree.

The formation of the communicative frame happens based on coordination operations that are typical for the analyzed language [4].

6.2 The derivational tree of a Chinese sentence

The consistent filling of the Chinese derivational tree begins with the choice of the necessary form of the verb [10, 11]. The necessary communicative sufficiency and completeness of the Chinese predicate are achieved due to the two-syllable component of its verb or adjective, the presence of the right or left verbal environment. The scale of gradual activation limits the number of participants which can be placed in postposition to the verb. All the other internal arguments are placed in prepositions to the central component accompanied by a preposition, or a postposition. Prepositional constituents include the arguments which possess the meaning of a period, another person, the time point, background location, and method. The postposition of the central

component is viewed in verbal suffixes or aspect modifiers and forms of (im)-possibility. Several dependent components are also taken into account. Such arguments often possess the meaning of validity, destination, quantity, result, source, or instrument.

The T-domain is formed based on less emphatic, more accessible information which makes its theme. The completion of the T-domain in a Chinese sentence happens due to its communicative-mediated laws, which is the main structural difference between the system of this language and the languages of the inflectional system (Fig. 4).

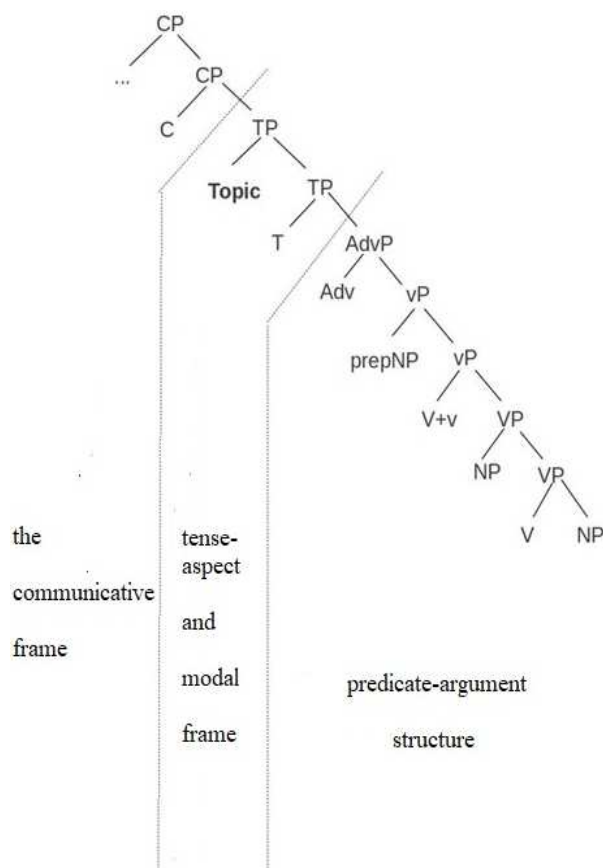


Fig. 4. The configuration model of a Chinese sentence.

The configuration frame of a Chinese sentence reflects the sequential inclusion of components in the derivational tree. Starting from the predicate-argument frame, the arguments are first placed in postpositions to the central component of the predicate. With a quantitative redundancy of the right verbal environment, some of the dependent components are copied into positions above the verb (preposition), forming the corresponding concordant movements. Adverbs precede the central component of the predicate, occupying the corresponding top. The filling of the tense-aspect and modal frame in a Chinese sentence happens based on similar rules. The promotion of the given information into the position of the subject is a typological feature of the Chinese language. We also note that the filling of the communicative frame occurs during movements associated with the information structure of the sentence,

for example, when topicalizing or placing a rheme at the beginning of a sentence.

7 Conclusion

The typological features of the analyzed sentence schemes propose the differences which occur in the stages of fulfillment of the predicate-argument frame and the tense-aspect and modal frame. These differences establish the variety of information coding which results in the occurrence of completely different grammar rules observed in both languages. These rules are relevant to the finiteness of verbal forms, the ways of argument distribution in a sentence, and the subject fulfillment aspect.

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