

# The Overall Distribution of Hot Issues in the Research of Construction Grammar in China in the Past Two Decades

Yuanyuan Yang\*, Hejia Zhang, Mingxia Wang

*School of Chinese Language and Literature, Bohai University, Jinzhou, Liaoning, China*

*\*Corresponding Author.*

**Abstract:** In recent years, domestic research on construction grammar has shown vigorous development and made many breakthroughs. The research field has been broadened, the depth of research has been strengthened, and new research paths and explanatory tools have emerged in an endless stream, injecting new vitality and perspectives into grammatical research. This paper utilizes the CNKI China Knowledge Network database as its data source, employing a synthesis of scientometrics research methodology and visual analysis software (CiteSpace) to quantitatively analyze and visually represent the extant literature. The study focuses on the salient issues that emerge within each temporal period of domestic constructed grammar research. The high-frequency keyword clustering method is employed to elucidate the intricacies of the discipline's research outcomes. The analysis, identification, and summary of these issues across various periods of time are the primary objectives of this study. By systematically sorting out and summarizing the hotspots of the current research on construction grammar, the results achieved, the challenges faced and the direction of future development, we can inject new energy into the research on construction grammar in China, and promote the further enrichment and development of the research results in this field.

**Keywords:** Construction Grammar; Hot Issues; Quantitative Analysis; Grammaticalization; Subjectivization

## 1. Introduction

In recent years, domestic research on constructive grammar has shown vigorous development and made many breakthroughs. Academics are very rich in the discussion of

“Construction grammar”, for example, Shao defines “frame structure” and distinguishes the difference between frame structure and construction [1]. Chen continues Goldberg's conception of grammar and points out that the influence of “subtle” pragmatic factors on syntax should be emphasized [2]. Shi reinterprets the mechanism of “construct suppression”. In addition, many other scholars have explained the concepts of constructive grammar [3], such as Zhang [4], Wang [5], and Liu [6], who have explored the research path of constructive grammar from different perspectives of cognitive linguistics.

This paper utilizes the CNKI (China Knowledge Network) as the primary data source, employing the search term “Construction grammar” and encompassing the time period from January 1st, 2003, to December 31st, 2023. The search was conducted exhaustively, yielding a total of 6,771 results. These results were then compiled to create a comprehensive database of domestic research results in the field of construction grammar. The database of domestic research results on construction grammar is constructed on this basis. Employing the methodology of scientometrics, the identification of high-frequency keyword clusters is achieved through the analysis of keyword frequency statistics. Subsequent analysis of the research results corresponding to these keyword clusters is undertaken to provide a comprehensive overview of the salient issues delineated by the clusters.

## 2. Identification of Hot Issues

The keywords of an article are important clues to the core content of its research results, so analyzing and counting the content and number of keywords in the literature in this field can effectively locate the general direction of research hotspots. Due to the huge amount of literature and the complex

distribution of keywords in each time period, the determination of hotspot issues also needs to be combined with the clustering of keywords presented by the knowledge graph, and the specific operational steps are as follows:

(1) High-frequency keyword categorization: counting the frequency of keyword appearances, making a list of high-frequency keywords, and categorizing keywords of the same topic.

(2) High-frequency keyword clustering: utilize the knowledge graph clustering view to cluster keywords into themes, determine large clusters by analyzing the co-occurrence frequency of keywords in the knowledge graph, and summarize the research themes.

(3) Influence analysis of high-frequency keywords: using the timeline view, analyze the influence of high-frequency keywords in the corresponding time period, and identify high-frequency keyword clusters with greater influence in each time period.

(4) Locate the research results mapped by the high-frequency keyword clusters, conduct in-depth interpretation of them, determine the hot issues embodied in the clustering of research results, and present and analyze them.

### 3. Overall Distribution of Hot Issues in Construction Grammar in China in the Past Two Decades

Using CiteSpace to draw the keyword co-occurrence knowledge graph (Fig. 1), there are 801 nodes with 4,387 connecting lines in the graph, forming a more obvious network graph; the larger the node radius, the higher its frequency of occurrence; the richer the node color, the longer its duration in years; the nodes are obvious and the differentiation is prominent, which indicates that the frequency of their occurrence is reasonable. Among them, the nodes of keywords such as construction, construction grammar, grammaticalization, construalization, and semantics are the largest, and the color stratification is obvious, which is a popular topic in the research of Chinese grammar in China in the past two decades. The statistical analysis of the high-frequency keywords helps to clearly and intuitively distinguish the hot issues of current research from the data.

According the keyword co-occurrence map (Figure 1), it can be seen that in the past two

decades, domestic research on construction grammar has mainly focused on the following aspects.

CiteSpace v. 5.10.R1 (64-bit)  
Copyright © 2009-2024 by L. Wang  
Email: wangli@ruc.edu.cn  
Website: http://www.citespace.org  
Address: 3000 University Avenue, University of California, Riverside, CA 92521  
Largest CC: 100 (100%)  
Nodes: 801  
Edges: 4387  
Density: 0.1000  
Q: 0.9999



**Figure 1. Keyword Co-Occurrence Knowledge Graph of Domestic Constructed Grammar Research**

(1) Research on “grammaticalization” “construct repression” “construction grammar” “subjectivity” “repression” “Externalization” “subjectivization” “rhetorical constructions” “cognitive mechanisms” “cognitive mechanism”. High-frequency keywords such as “cognitive mechanism” and “categorization” reflect the relevant research from the construction of construction grammar theory, which involves the process of importing, interpreting, and Chineseization of construction grammar theory.

(2) Focusing on “constructional meaning” “semantics” “pragmatics” “syntax” “Cognitive mechanism” “pragmatic function” “metaphor” “semantic features”. The case studies of Chinese constructions formed by high-frequency keywords such as “conceptual integration” “function” and “double-object constructions “are constructions analysis studies focusing on interpretation and analysis.

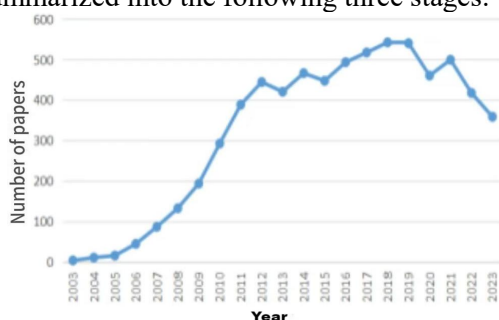
(3) Research on the application and practice of construction grammar, which is formed around high-frequency keywords such as “corpus” “bias analysis” “grammar teaching” “second language acquisition” “teaching strategy” “English-Chinese comparison” etc. The research results of construction grammar are mainly applied in various fields of teaching to assist the traditional grammar teaching.

Comprehensively analyzing the above data and categorizing the high-frequency keywords, it can be seen initially that the domestic research on construction grammar can be divided into three dimensions, namely, theoretical research on construction grammar, which explores the

construction of the current theoretical system of construction grammar and other related issues; case study on construction grammar, which analyzes the constructive cases and series of constructions from the perspective of the object of research by comprehensively applying a variety of linguistic theories; and applied research on construction grammar, which applies the relevant research results of the construction to practical areas such as language teaching, proposing new teaching strategies, and so on. Application of construction grammar, applying the relevant research results to language teaching and other practical fields, and proposing new teaching strategies, etc. In order to present more deeply the hot issues of domestic construction grammar research in the past two decades and its evolution over time, based on the above analysis, the academic research from 2003-2023 is analyzed segment by segment according to the actual situation of domestic construction grammar research, so as to show more precisely the hot issues in each period, and its evolution law.

#### 4. Phases of Construction Grammar Research in the Last Two Decades

Using CNKI China Knowledge Network to exhaustively count the domestic research results of constructed grammars from 2003 to 2023 (Fig.2), observing the overall data distribution and the data of each natural year, and dividing the time periods according to the characteristics of the data at different time stages, the development history can be summarized into the following three stages:



**Figure 2. Statistical Chart of the Number of Articles Published on Domestic Construction Grammar Research in the Past Two Decades**

##### 4.1 Introduction and Initial Exploration Phase (2003-2012)

As can be seen from the above statistical chart

of the number of articles (Fig. 2), the years from 2003 to 2012 formed a hot spot of attention during the exploration period of Chinese construction grammar research. As an emerging theory, construction grammar has rapidly heated up after its introduction to China, becoming a popular area of research in the academic community. In this period, the time span is large and the distribution is uneven, and the research on construction grammar still remains at the level of introduction and preliminary application.

Statistics on the keywords in the period of 2003-2012 show that: the research on categorization and grammatical metonymy has the largest scale, and the two clusters have the largest number of nodes and the largest number of connecting lines, indicating that the hot keywords in the two clusters not only appear in high frequency by themselves, but also have a high frequency of co-occurrence with other keywords.

The exploration of Chinese construction grammar is an important part of the domestic construct research in the exploratory period, i.e., the research of explaining specific linguistic phenomena, such as double-object constructions, passive constructions, anti-anticipatory constructions, and dynamic tendency constructions, with Chinese as the corpus under the guidance of the theory of constructions. Construction grammar is usually combined with other theories to explain specific linguistic phenomena in specific usage analysis. In addition to cognitive linguistics, which has a relatively high co-occurrence rate, ephemeral linguistics, semantics, phonology and chapter linguistics are also used in the case study of Chinese constructions. Among them, ephemeral linguistics is mostly used to examine the evolution of one or more similar constructions over time, such as grammaticalization, lexicalization, and construalization studies. Semantic theories are usually found in the interpretation of constructional and constituent parts of meaning. The combination of construct theory and phonology is mostly reflected in the explanation of the number of syllables and rhythmic features of construct components. The combination of construction grammar and chapter linguistics is mainly reflected in the study of discourse constructions, on the one hand, discussing the discourse features and

functions of a certain construction as an example, and on the other hand, examining the characteristics of certain types of constructions as a whole as an example of a certain type of discourse.

The specific objects involved in the study of domestic Chinese constructions can be divided into different categories according to different perspectives:

(1) Divided in terms of linguistic form, the objects involved in the research include open structures, semi-open structures and fixed structures.

(2) In terms of linguistic attributes, most of the specific examples of Chinese constructions are common languages of the Han Chinese people, while some of the studies also involve dialects and minority languages.

(3) From the point of view of language structure, spoken language dominates the research, while written language constructions are relatively less studied.

(4) In terms of language structure, domestic research on Chinese constructions involves many levels, including words (including idioms), phrases, sentences and parts of speech. In the exploratory stage of construction grammar research, domestic construction research in this period especially focuses on exploring the possibility of combining construction grammar with other fields. Construction grammar is still under the category of cognitive grammar, which is a grammatical theoretical system formed and developed in the process of criticizing and reflecting on TG grammar under the framework of cognitive linguistics, and its close connection with cognitive linguistics makes construction research from the cognitive perspective more common, and the categories, metaphors, metonymies, subjectivity and subjectivization, are the popular directions of its research.

Domestic research on the theory of construction grammar has emphasized the expansion of new theories of construction grammar, while not neglecting the reflection on classical theories. The theoretical discussion on the study of Chinese construction grammar is not only a refinement and deepening of the macroscopic research perspectives of constructed research, but also demonstrates the entry point of domestic construction grammar research. In addition to

the above theoretical studies, corpus linguistics, rhetorical constructions, pragmatics, chapter linguistics, natural language processing and neurolinguistics have also entered into the research perspective of constructed grammar and become the disciplinary frontiers of later development.

#### **4.2 Rapid Development and Maturity Stage (2013-2017)**

After several years of exploration by the academic community, the domestic research results on construction grammar have been increasing, deepening in content, further expanding in research themes, and maturing, basically forming a relatively large academic echelon and a group of high-yield authors. At this stage, the research on construction grammar has achieved milestones in theoretical research, paradigm case study and application.

Construction grammar has a relatively wide range of applications, such as language acquisition, language teaching, thesaurus compilation, linguistic information processing, language translation, applied rhetoric, and even Internet corpora. As far as current research is concerned, the “applied” nature of the two fields of second language acquisition and teaching is closely related to the “theoretical” nature of construction grammar, and is of great practical significance. Applied research is often used to solve practical problems in language communication, and sometimes it can be combined with utilization research, i.e., applied research on Chinese constructed grammar refers to the research on both teaching and learning in Chinese language teaching by explicitly adopting the theory of construction grammar.

This part adopts the concept proposed by Zhang Juan, that is, the research on the application of Chinese construction grammar refers to the research on the two aspects of “teaching” and “learning” in Chinese language teaching by explicitly adopting the theory of construction grammar. Following the two main lines of “teaching” and “learning”, the research on Chinese teaching and acquisition under the view of constructive grammar in China is elaborated [7]. Lu who also emphasizes the research on constructive teaching, proposes that we should consider what grammatical system is most suitable for Chinese teaching

and learning, and pay attention to the research on the usage of words and syntactic forms, as well as the hierarchical and phased teaching of grammatical items [8].

Statistics on the keywords in the period of 2013-2017 show that the number of keywords appearing in the field of Chinese construction grammar in the developmental period has increased compared with that of the previous period, and the research directions and fields have been gradually formed. Among them, “lexical suppression” “construalization” “popular language” and “dynamic conjugation” all appeared at the beginning of the time period, and they are all the keywords of this time period. All of them are specific to a certain research direction in the field, and are relatively strong in characterization. In this period, a large number of keywords characterizing the theme also appeared, and the research theme began to show diversity while following the research hot spots in the previous period, and the research direction began to form and gradually become clear.

#### **4.3 Stage of Reflection and Questioning and Innovative Development (2018-2023)**

With the depth of the research, domestic scholars gradually realized that the theory of construction grammar has certain problems and defects, and reflected on and criticized it, which also laid the foundation for the innovative development of construction grammar in China and further promoted the localization of construction grammar research. Literature information in the field of construction grammar from 2018-2023 was imported into CiteSpace software, and the keywords in the period were counted. After the accumulation and development in the previous periods, the research on construction grammar in China has gradually entered the stage of precipitation and reflection. Compared with the previous period, the total number of published papers in this period decreases, but the total frequency of keyword use rises, and the research clustering tends to concentrate. It can be seen that, on the one hand, the high-frequency keywords are continuing the research contents in the previous periods; on the other hand, with the development of language theory, a batch of high-frequency keywords of new research objects gradually

appear, and the research contents are more refined. Among them, the keyword clusters of constructional meaning research and bias analysis research are the continuation of the hot issues in the previous periods, and they still attract much attention in the reflection period.

Based on the visual analysis of the period, it can be found that the innovative development of construction grammar in China during the reflection period is mainly manifested in the cross-disciplinary and interdisciplinary development, which mainly involves the cross-fusion of construction grammar with corpus linguistics, computational linguistics, neurolinguistics, cognitive psychology and other disciplines, and the deepening of interdisciplinary research. Shi proposed the concept of “construction database”, pointed out that a construct database is not the same as a construct library [9]. Zhang conducted quantitative research on construct grammar based on the corpus, conducted empirical research on the structural constructs of thesis elements, and systematically discussed the “construct collocation analysis method” [10].

As well as research on the ontological theory of construction grammar, case analysis and acquisition of construals are still the focus of construal research in China, and quantitative analysis and ephemeral research have also been developed to a certain extent. Some scholars have found certain problems and defects when applying construct theory to the analysis of Chinese phenomena, and have reflected on and questioned it, specifically including the definition of constructs, their nature and characteristics, methodological value, and the relationship between construction, which lays the foundation for the further application of construction grammar to the Chinese language paradigm.

#### **5. Summary**

After the accumulation and development in the previous periods, the research on construction grammar in China has gradually entered the stage of precipitation and reflection. Compared with the previous period, the total number of published papers in this period decreases, but the total frequency of keyword use rises, and research clustering tends to be concentrated. It can be seen that, on the one hand, the high-frequency keywords are continuing the research contents in the previous periods; on

the other hand, with the development of language theory, a batch of high-frequency keywords of new research objects gradually appear, and the research contents are more refined. Among them, the keyword clusters of constructional meaning research and bias analysis research are the continuation of the hot issues in the previous periods, and they are still attracting much attention in the reflection period.

### Acknowledgments

This paper is supported by Liaoning Provincial Social Science Foundation “Construction of Chinese Grammar Think Tank Based on Domain Knowledge graph Technology” of China (No. L23AYY008)

### References

- [1] Shao Jingmin. A Brief Introduction to Chinese Frame Structure. *Chinese Language*, 2011, (03):218-227.
- [2] Chen, Manhua. A few questions about the theory of constructive grammar. *Foreign Language Teaching and Research*, 2009, 41(05):337-344.
- [3] Shi Chunhong. “Recruitment” and ‘Job Hunting’: A Synergetic Mechanism of Two-Way Interaction in Constructive Repression. *Contemporary Rhetoric*, 2014, (02):1-11.
- [4] Zhang Y. A New Exploration of the Cognitive Construct of “Wang Coronation's Dead Father”. *Journal of PLA Foreign Language College*, 2010, 33(04):17-20.
- [5] Wang Yin. A study of symmetrical constructions in Chinese under the perspective of embodied construction grammar. *Language Teaching and Research*, 2024, (06): 39-49.
- [6] Liu Xingbing. Parallel constructions: a perspective on dialogic syntax + cognitive construction grammar. *Foreign Language Studies*, 2023, 40 (06): 7-15.
- [7] Zhang Juan. Ten years of research on domestic Chinese constructive grammar. *Chinese Language Learning*, 2013, (02):65-77.
- [8] Lu Jianming. Ontological research on teaching Chinese as a second language and Chinese language ontology. *Chinese Language Teaching in the World*, 2007, (03):94-97.
- [9] Shi Chunhong. Theoretical Path and Application Space of Constructive Grammar. *Journal of Chinese Language*, 2017, (01):2-13.
- [10] Zhang Kexue. A corpus-based empirical study on the semantic patterns of Chinese double and object constructed prototypes. *Foreign Language and Foreign Language Teaching*, 2018, (05):79-88.