# A CiteSpace analysis of the research on Chinese academic discourse

Zhangjun Lian, Huimin Yao (Xi'an University of Science and Technology, Xi'an 710054, Shanxi, China)

Abstract: The paper aims to systematically study the current situation and trends of academic discourse in China. Based on the full text database of CNKI journals, the citation analysis software CiteSpace is used to conduct statistical and visual analysis of relevant achievements from 1997 to 2022, and to draw a scientific knowledge graph of academic discourse in China, revealing the construction and development of academic discourse in China. The econometric analysis of academic discourse in China shows that academic discourse is gradually sinicized and integrated with the international community. The analysis of the evolution of academic discourse power in China indicates that related topics such as "discourse system", "academic discourse", and "discourse power" may become the focus of future research. The academic community has begun to attach importance to the international dissemination of China's academic discourse power, strengthen international cooperation, and enhance China's academic discourse power.

Keywords: academic discourse; discourse system; CiteSpace; Visual graph

### 1. Introduction

In the context of globalization, China's comprehensive national strength is increasingly strengthening and its international status has significantly improved. As a responsible major country, China has gradually stood at the center of the international stage. To play a good role in the international stage, tell the story of China well, and establish the image of a great country, it is necessary to enhance China's academic discourse power in the international arena. In the current context, academic discourse power has become an important focus of scholars' research, and their research on academic discourse power is mainly analyzed from the perspective of communication related theories (Zhang Sihong, 2020). Building a complete academic discourse system is an inevitable requirement for the development and progress of a country's knowledge system, and also an important symbol of a country's acquisition of academic discourse power. There are still some shortcomings and problems in China's academic discourse system. Currently, the low level of academic achievements, insufficient innovation in academic concepts, and poor effectiveness in academic dissemination are the main reasons why China's academic discourse power cannot match its own strength (Yu Bo, Zhao Rongying, Qiu Junping, 2021; Yu Bo, Song Yanhui, 2021). To enhance China's academic discourse power, it is necessary to improve academic quality, innovate discourse systems, and promote academic dissemination. At the same time, enhancing China's academic discourse power must also effectively address the obstacles and difficulties from existing international and domestic academic development models.

This study aims to explore the construction and development of China's academic discourse system in today's society. Data collection and analysis are based on CNKI and CiteSpace. CiteSpace is a software for tracking and analyzing international cutting-edge research. It uses bibliometrics to study the characteristics of literature systems and bibliometrics, analyze information from different institutions and scholars, and compare their contributions. This article takes Chinese academic discourse research papers published in CSSCI journals for over 20 years from 1997 to 2020 as the research object (currently available on academic platforms such as CNKI and CSSCI databases starting from 1997). The core journal 133 and C journal 124 use the bibliometric analysis tool - SiteSpace to visualize and analyze Chinese academic discourse related literature retrieved in CSSCI, to sort out a series of constructions and developments in Chinese academic discourse research.

## 2. Research hotspots of academic discourse research in China

Based on the data analysis of 301 literatures related to academic discourse power, the paper generates keyword co-occurrence knowledge graph, time graph and mutation graph, etc., in order to understand the current research hot spots. At the same time, cluster analysis is carried out to explore the current frontier hot spots and key topics of academic discourse research, and explore the future research evolution trend.

This study focuses on the correlation graph of keywords, which is a choice made for the status and role of keywords in the literature. The key words of the literature reflect the core theme concept of the full text, which can clearly and intuitively express the theme of the paper and summarize the main content of the article. Therefore, analyzing the key words can understand the current research hotspot of the academic discourse in China.

According to the map obtained by keyword co-occurrence, the formed map has a total of N=292 nodes, E=470 connections, and network density D=0.0111. In the spectrum of keywords, there are often multiple keywords listed in a literature, which are related to a certain extent, and this correlation is expressed by the co-occurrence frequency. The higher the co-occurrence frequency, the closer the relationship between keywords and topics. As can be seen from the keyword co-occurrence chart, the keywords with high frequency in the field of academic discourse research in China include "Chinese discourse", "discourse system", "academic journals" and "academic discourse", among which "academic discourse" appears most frequently, reflecting the distinct centrality of this research field.



Keywords are the key subject words that summarize the subject of the paper and have the significance of retrieval. The analysis of key words in literature in a certain field is helpful to explore research topics and hot spots in related fields (Gao Yu, 2011). In CiteSpace, centrality is a key index to analyze the importance of keywords, which can reflect various transformation relationships among research hotspots. If the centrality of the node exceeds 0.1, the node is considered as the central node, which is the hub of communication and connection with other nodes, and is more important in the research and has a greater influence. From 1997 to 2020, the theme words with the highest frequency in China's academic discourse research are: "academic discourse", "discourse system", "academic journals", "Chinese discourse", "discourse power", "Chinese characteristics", "construction", "academic publishing" and "academic research", which reflect the research hotspots in the field of academic discourse in China. As shown in the table, there are five subjects with centrality exceeding 0.1, namely academic discourse, discourse system, academic journals, Chinese discourse and discourse power, which indicates that these subjects are closely connected. To enhance China's academic discourse power, the international sense of cultural identity of China is enhanced, thus enhancing China's international discourse power.

By using CiteSpace cluster analysis of keywords, the hot topics in a specific research field can be locked, and the intermediate centrality of keywords under each cluster can be used to judge the degree of activity of keywords in the research topic. According to the graph obtained by keyword clustering, the keyword clustering of "academic discourse", "academic journal", "discourse power", "discourse system", "Chinese discourse" and "theoretical consciousness" appeared through the analysis of the keywords of each cluster. Based on the data processing results of keyword cluster analysis, 301 valid data articles will be imported to CiteSpace. This article will generate a visual graph using Citespace. The result is Modularity Q=0.8153, Weighted Mean Silhouette =0.943. In CiteSpace, when Q value is greater than 0.3, it means that there is an obvious clustering structure. When S value is greater than 0.5, it means that the effect of the clustering structure is reasonable. When the S value is greater than 0.7, this clustering is efficient and convincing. Therefore, the literature visualization analysis of academic discourse research in China has certain clustering rationality.

# 3. Analysis of the evolution of academic discourse research in China

In CiteSpace, the role of time zone graph is to add time factor into visual analysis. Through the keyword collinear knowledge graph, the year when keywords first appeared in the analyzed data set can be seen, reflecting the research evolution process of academic discourse power (Ling Zhenghua, Luo Yi, 2023).

Around 1997, there was the first study of academic discourse in China. After 2000, the research on China's academic discourse has gradually increased, and the flourishing period of China's academic discourse research is from 2010 to 2020. There have been many development achievements in academic discourse research, and a series of landmark and highly cited literatures have also appeared. From 1997 to 2020, China's academic discourse research and literature achievements have shown a gradual development trend. In CiteSpace, keyword emergence refers to the change in the degree of attention paid to a topic by the research field in a specific period of time. Keyword sudden dominance is commonly used to detect large changes in the amount of citations in a certain period of time. Through the keyword sudden map, the decline or rise of keywords can be found, so as to judge the change trend of research hotspots in different periods and understand the research development process of research topics in different stages, so as to provide corresponding predictive guidance for future research development.

The study of academic discourse in China is a hot topic in current academic circles. In the course of research and development, the most prominent feature is the combination of philosophical discourse, public discourse research and academic research to reflect the research results of academic discourse in China. In the early stage of the research, "cultural collision", "public discourse", "academic" and "philosophical discourse" were mainly used as the main keywords of the research, which reflected the connection between domestic academic research and discourse research, that is, the mutual influence and interaction between academic research and discourse power. Since 2015, the number of keywords in the field of academic discourse research in China has been continuously expanding, and the pertinence has also been continuously improved. The academic community has begun to attach importance to the construction of China's academic system and the sinicization of international integration, and enhance the influence of China's academic discourse power by promoting the construction and development of China's academic discourse system and political connection.

### 4. Conclusion

With the help of CiteSpace, a visual analysis software, this study investigates the hot spots and trends of Chinese academic discourse analysis in recent years, and draws a map of scientific knowledge. By drawing and analyzing the knowledge graph and keyword emergent graph of academic discourse research, the following conclusions can be drawn:

First, Chinese academic discourse research has great space and development potential, and has distinct Chinese characteristics. In recent years, with the emphasis on the study of academic discourse system, the number of related research results has increased significantly.

Second, through the analysis of the hot spots of academic discourse research in China, it is found that the current research results are mainly from the perspective of construction and development, and the research direction is relatively concentrated, which is closely related to China's international discourse power.

Thirdly, the analysis results of the evolution of academic discourse power research in China show that the academic community gradually attaches importance to the complete structure, development direction and achievements of China's academic discourse system, and the sinicization of academic discourse research and its integration into the international arena play a more positive and significant role in the

development process of academic discourse research in China.

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Fund project: This paper is the achievement of "Research on the Construction of Blended Teaching Platform in Colleges and Universities under the Background of Education Informatization" (2023HZ1313), a special research project of Philosophy and social Sciences of Shaanxi Province.

About the author: Zhangjun Lian, Ph.D., Associate Professor, research interests: Applied Linguistics; Huimin Yao, English major undergraduate.