# Research on the Global Communication of Traditional Chinese Medicine from the Perspective of Cognitive Linguistics

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## Abstract

*Chinese medicine is one of the important traditional cultures of the Chinese nation, a typical representative of the unique wisdom of the nation, and an influential worldwide cultural label of the country. In this paper, the theory of Cognitive Linguistics is used to enhance the depth of cultural communication of traditional Chinese medicine, to make up for the shortcomings of single language, mode and means in the communication research of traditional Chinese medicine at home and abroad, and to provide innovative research routes for the communication of traditional Chinese medicine at home and abroad, such as cognitive neuroscience and artificial intelligence big data, which conform to the development of the times. From a practical point of view, it will provide solutions for the internal and external communication of Chinese medicine more empirically and scientifically, and more effectively promote the Chinese medicine culture to take root in the local area and go global. Especially, it will gain the recognition of the younger generation who are good at obtaining information from new media through high-quality audio-visual translation products of Chinese medicine, so as to build a human health community with Chinese medicine as an important part.*

**Keywords:** *Chinese medicine; global communication; cognitive linguistics; empirically.*

## Introduction

Chinese medicine is the key to unlocking the treasure trove of Chinese civilization, an important component of Chinese culture, and also a means of sharing traditional Chinese medicine with the world. Chinese medicine is an important carrier for jointly building a human health community and a special project for international cooperation. On July 7, 2021, the Implementation Plan for the Action of Traditional Chinese Medicine Cultural Communication (2021-2025) put emphasis on the important tasks such as strengthening the sorting of traditional Chinese medicine cultural resources, building a platform for the dissemination of traditional Chinese medicine culture, strengthening the creation of traditional Chinese medicine themed literature and art, enriching the forms of traditional Chinese medicine culture in schools, and promoting the construction of talent training mechanisms for traditional Chinese medicine cultural communication. From the macro perspective of national policies and guidelines, it can be inferred that the country attaches great importance to the process of "going global" of traditional Chinese medicine culture.

## Current Research Status of Global Communication of Traditional Chinese Medicine at Home and Abroad

From the perspective of communication target audiences, the global dissemination of traditional Chinese medicine can be divided into "internal circulation" dissemination in China and "external circulation" dissemination overseas. However, currently, both overseas and local Chinese people need to strengthen their awareness and sense of identification with traditional Chinese medicine (Zhao Dandan & Men Ruixue, 2022).

In terms of "internal circulation" communication in China, current research mainly focuses on the application of multimedia platforms and the analysis of the current situation of communication. Li Guoqin and Zhang Honglei (2022) found a large number of positive comments on traditional Chinese medicine on the Chinese online video platform Bilibili,using Nvivo qualitative analysis software, indicating that the platform has good potential for dissemination. The WeChat public platform also provides communication media for traditional Chinese medicine universities (Liu Zhiwei, 2017), hospitals (Feng Yin et al., 2018; Zhang Xiaoyu et al., 2020), and museums (Hu Yue&Liu Ping, 2020; Li Xiang et al., 2022).

In recent years, the overseas circulation of traditional Chinese medicine has achieved phased results. According to the 2020 Global Survey Report on China's National Image, 30% of overseas respondents

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have been exposed to or experienced traditional Chinese medicine culture, and more than 80% of those who have experienced it hold a good impression. Traditional Chinese medicine has become a vivid carrier for perceiving Chinese culture. Among international students from traditional Chinese medicine universities studying in China, the group with a stronger sense of identification with traditional Chinese medicine culture usually finds that the perceived cultural distance between their home country's medical culture and traditional Chinese medicine culture is smaller (Guan Cuiling&Gao Shan, 2021). However, the international dissemination of traditional Chinese medicine still faces difficulties in language conversion due to cultural differences between the East and the West, poor public opinion response to negative reports, and insufficient use of new media and other communication media (Chang Xinyue et al., 2020). At present, the main research media for cross-cultural dissemination of traditional Chinese medicine is concentrated in book publishing (Huang Yan, 2021; Shariff & Fadhila, 2023), among which the translation of classics (Cheng Ling, 2016; Hai Xia)&Chen Hongmei, 2019; Wang Erliang, 2021; Ye Hui (2020), manga translation (Qian Siyan et al., 2020; Wang Meng et al., 2022), and traditional Chinese medicine terminology translation (Chen&Chen, 2018; Duan&Peng, 2021; Ye&Zhang, 2017; Yi et al., 2020; Yuan, 2021; Zhang&Dong, 2020) are research hotspots, but there is relatively little research on audio-visual translation of traditional Chinese medicine themes. Currently, research on the dissemination strategies of traditional Chinese medicine overseas is mostly based on suggestion based qualitative research, while empirical research is relatively scarce. A few empirical studies have explored the evaluation of overseas communication products, without starting from the product itself and studying the ontological issues of traditional Chinese medicine communication.

In the field of traditional Chinese medicine communication research technology, Zi Xiaohong (2021) pointed out that translation studies such as social translation studies, cognitive translation studies, and cultural turn should be integrated into the theoretical paradigms of traditional Chinese medicine translation research. The main research methods of cognitive translation include auditory thinking, keyboard recording, screen recording, eye tracking, meta-analysis, event-related potentials, functional magnetic resonance imaging, etc. (Sun Juan&Lu Zhi, 2018). The application of eye tracking technology in communication studies in China focuses on textual modes such as the dissemination effect of entertainment news headlines (Zhang Yupu et al., 2018), as well as non textual modes such as clothing culture (Kong Lingqi, 2016), advertising (Wen Xiangya&Wang Yuancheng, 2021), and data visualization (Xu Xiangdong, 2018). Although some scholars in China have started using eye tracking technology to study video modalities, their research focuses on the interface preferences of short video mobile apps (Zhang Yupu et al., 2018), instructional video design (Fu Shuangna, 2020; Gu Daiyue, 2019; Jiang Yanling et al., 2018; Kuang Ziyi et al., 2021; Wang Xue et al., 2016; Yang Jiumin et al., 2020), and video advertising subtitles (Feng Li, 2017; Lu Lijun&Chen Qingrong, 2017; Zhao Yue et al., 2020). At present, there is a lack of research on the effectiveness of traditional Chinese medicine video dissemination using eye tracking technology. In addition, conducting text sentiment analysis through audience evaluation is an effective way to quantify the effectiveness of communication. Zhang Wenwen (2020) used Python's data analysis toolkit and text sentiment analysis tools to extract and analyze metadata and audience comments from traditional Chinese medicine related videos uploaded on the YouTube platform in 2019, based on the evaluation model of international video dissemination on YouTube. She analyzed the current situation and influencing factors of international dissemination of traditional Chinese medicine videos on YouTube. Research has found that the current content of traditional Chinese medicine dissemination on YouTube platforms is diverse, with low professionalism and low audience participation. It is suggested improving the operational professionalism of official accounts, encouraging personal accounts to publish high-quality videos with higher content freedom, enriching the dissemination content and forms, and designing targeted dissemination content according to user needs.

## Problems Faced in the Global Communication Research of Traditional Chinese Medicine

The current research on the dissemination of traditional Chinese medicine at home and abroad mainly encounters following problems: (1) In the field of communication research, there are more theories in communication studies and fewer theories in other disciplines, which have not formed the advantage of interdisciplinary theoretical research. (2) The research languages are not multiple, mainly focusing on

Chinese English translation, while the research on Chinese medicine translation products for language audiences such as countries along the "the Belt and Road", the African Union and ASEAN is insufficient; (3) The research object modes are not diversified, mainly studying the translation of traditional Chinese medicine classics in text mode, with a particular focus on terminology translation. However, there is relatively little research on the ontology of traditional Chinese medicine film and television translation products; (4) The research methods are not rich, mainly focusing on qualitative research of "discovering problems and proposing suggestions", while empirical research based on cognitive neuroscience and artificial intelligence big data analysis is scarce, and its persuasiveness is not strong.

## Strategies to Solve the Problems Faced by the Global Communication of Traditional Chinese Medicine

*Strengthen Theoretical Innovation in the Global Communication of Traditional Chinese Medicine*

The global communication of Chinese medicine not only relies on the development of communication studies, but also on the development of interdisciplinary studies such as linguistics. In current research, there are too many theories in communication studies and insufficient theories in linguistics. Therefore, integrating linguistic theories can help promote the global communication of traditional Chinese medicine. Cognitive linguistics is a language theory framework that integrates the language views of ancient Chinese scholars, based on the interactive experience view, and organically penetrates the "cognitive view" expressed in works such as the Book of Changes and Xunzi into cutting-edge language research, constructing a language theory framework with Chinese localization characteristics. The core principle is "reality-cognition- language", which believes that only under the influence of human "cognition", "language" can be connected with "reality". The translation and promotion of traditional Chinese medicine terminology is also a challenge for the global dissemination of traditional Chinese medicine. Due to the abstract and ambiguous nature of traditional Chinese medicine language, most concepts and theories cannot be clearly explained in modern scientific language. Due to the uncertainty of translation theory, traditional Chinese medicine terminology has produced multiple different versions during translation, leading to confusion and loss of discourse dominance in the process of internationalization of traditional Chinese medicine. The combination of cognitive linguistics and translation studies has formed cognitive translation studies, emphasizing the importance of the reader's embodiment in the translation process. From the perspective of embodiment, abstract traditional Chinese medicine terms and their therapeutic functions can be translated, rather than using traditional equivalent translation methods in a constant manner. By "experiencing" (translating) the functions of traditional Chinese medicine ingredients, readers can intuitively "recognize" them the therapeutic effect of traditional Chinese medicine (Zheng Jie&Luo Ruifeng, 2023). The theory of Cognitive Linguistics used in the global dissemination of traditional Chinese medicine also deepens the depth of its empirical and feedback use. Guided by Cognitive Linguistics, traditional Chinese medicine texts in a multimodal manner can be promoted.

*Strengthen Research on Communication Targets*

The research language used in the global communication of traditional Chinese medicine is single, mainly focusing on the translation from Chinese to English. The ideal target is the people of Europe and the United States. However, the research on the translation products of traditional Chinese medicine for language audiences along the "the Belt and Road", the African Union, ASEAN and other countries has not been paid enough attention. The people of Europe and the United States are far away from China in terms of geographical distance or psychological distance, and their values are quite different from Chinese People's. Most of the countries along the the Belt and Road are close to China, have frequent interactions with China, have similar living habits, and have relatively small differences in values. At the same time, we should target the regions of interest and cognitive load of audiences with different cultural backgrounds overseas in the dissemination of traditional Chinese medicine materials, develop targeted guidelines for the production of traditional Chinese medicine audio-visual materials for domestic and foreign age group dissemination and cultural background dissemination.

Therefore, in the global communication of TCM, attention should be paid to the study of the communication targets, the communication of languages in ASEAN and other the Belt and Road countries should be strengthened, and young students from countries along the Belt and Road are encouraged to

study and travel in China and learn Chinese. At the same time, it is important to pay attention to the content preferences and language acceptance of audiences of different age groups towards the communication of traditional Chinese medicine, and to determine the interests and cognitive difficulties of audiences from different cultural backgrounds at home and abroad towards traditional Chinese medicine culture. It is necessary to improve the level of Chinese people's understanding of traditional Chinese medicine, investigate the knowledge reserves and identification of traditional Chinese medicine among different age groups in China, determine the interests and understanding difficulties of Chinese audiences in traditional Chinese medicine culture, and make them the ambassadors of traditional Chinese medicine dissemination.

*Explore Multimodal Communication Channels*

The research on the communication of traditional Chinese medicine should break through the single text mode and move towards multimodal video materials, break through the scope of pure impression text analysis, embrace neurocognitive science represented by eye movement and text sentiment analysis technology driven by big data, promote the translation of research conclusions into practice, assist in the dissemination of traditional Chinese medicine culture both domestically and internationally, and enhance the sense of identity and understanding of traditional Chinese medicine culture among Chinese and foreign friends.

*Advocate the Method of Empirical Research on Strengthening the International Communication of Chinese Medicine*

In the international communication of Chinese medicine, there is a greater use of written communication, and the collected data is not clear. We need to pay attention to empirical research in communication and analyze the current situation with more accurate data in order to accurately predict future development trends.

By collecting Chinese medicine videos on domestic WeChat official account, video number, microblog, Tiktok, Xiaohongshu and other platforms, as well as overseas YouTube, Twitter, Facebook and other multimedia platforms, the videos are classified by the content tags of news videos, popular science videos, teaching videos, and the propagation subjects of official institutions, and other tags in the form of videos. Appropriate sample size as research materials by the method of random sample extraction should be appropriately selected. Based on the video content, knowledge questions about traditional Chinese medicine as experimental materials should be written down. We can recruit a certain number of Chinese volunteers of various age groups to conduct video experiments on the communication of traditional Chinese medicine culture through domestic multimedia platforms and parallel recruitment of a certain number of foreign volunteers from Europe, North America, Africa, East Asia, South Asia and other regions (first in English).

We can conduct eye tracking experiments using traditional Chinese medicine communication videos on overseas platforms as experimental materials, explore the characteristics of interest areas and points of interest of participants from different cultural backgrounds in traditional Chinese medicine cultural dissemination videos. Eye tracking also provides an ideal research method for studying how viewers use subtitles (Conklin et al., 2018). It captures the fixation position, number of fixation times, fixation time, and eye skip characteristics of participants when watching videos, reflecting the parts with higher cognitive effort. Subsequently, a questionnaire interview can be conducted to analyze the identification, knowledge reserve, and interest level of participants with different cultural backgrounds towards traditional Chinese medicine culture from multiple dimensions, and the experimental materials were scored and evaluated from multiple dimensions. By using Web Crawler technology in Python language, batch collection of network metadata and audience comments of videos is carried out. Sentiment analysis is conducted on the interview content and online comments of participants based on Python. Firstly, the procedure is to preprocess the text input, denoise, and remove invalid characters to complete the segmentation operation. Different types and degrees of words such as positive words, negative words, degree adverbs, negative words, affirmative words, and interjections in the sentiment dictionary are added to the model training. Based on sentiment judgment, output sentiment types (Wang Yingjie et al., 2022), and explore subjective texts expressed by Chinese and foreign audiences with emotion, summarize the emotional tendencies of both macro and micro individuals towards the current Chinese medicine culture and communication videos.

Based on the empirical research results of eye tracking experiments, questionnaire interviews, and text sentiment analysis, the understanding difficulties and interest areas of Chinese medicine overseas

communication videos for audiences with different cultural backgrounds are summarized. Especially for video materials that receive negative emotional color feedback, special issues are specifically explored, and university and companies' cooperation is promoted in depth.

Drawing conclusions, guidelines for the overseas communication of traditional Chinese medicine through film and television production based on video types (news videos, science popularization videos, teaching videos, etc.) and regions (countries and regions where English, French and other languages are used) can be developed.

## Conclusion

This study proposes to integrate the Cognitive Linguistics theory into the international communication of traditional Chinese medicine, forming an interdisciplinary approach and enhancing China's ability for theoretical innovation. It advocates for diversified promotion channels, traditional external translation of classics is far from meeting the needs of today's domestic and foreign markets, and uses the empirical methods such as eye tracking experiments, questionnaire surveys, text sentiment analysis, and data collection tools such as Python web crawlers to more intuitively and effectively identify problems in the international communication of traditional Chinese medicine, and propose solutions. It also provides content grading guidelines tailored to the difficulty of understanding for audiences of different age groups, and translation guidelines for different types of audiovisual communication materials such as news videos, science popularization videos, and teaching videos, to ensure that translation is effective, and to enhance the effectiveness of information transmission. It helps to promote the inheritance and development of traditional Chinese medicine culture, strengthen the confidence of traditional Chinese medicine culture, enhance the affinity, appeal, and influence of Chinese culture, promote the communication of traditional Chinese medicine culture at home and abroad, jointly build a community of human health, and make traditional Chinese medicine culture benefit all mankind.

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