From the Perspective of Systemic Functional Grammar of Modal System Analysis of Control Discourse

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Abstract: Epidemic prevention and control discourse is a part of national emergency language, which provides language assistance in response to public health emergency. Epidemic prevention and control discourse mainly refers to the language that can be comprehended by the government, experts, and the public. It is an expression for the government to convey views and methods regarding public emergencies. From the perspective of systemic functional grammar, this thesis attempts a modal analysis of all the articles on epidemic prevention and control discourse published by the official Weibo of People's Daily during the epidemic period to explore the influence of modal operators on the discourse system of epidemic prevention and control.

1. Introduction

Since the outbreak of the epidemic, the Chinese government has introduced a number of measures and taken strict policies to control the outbreak, so as to ensure the normal operation of social order. Among them, the active construction and dissemination of epidemic prevention and control discourse plays a vital role in the prevention and control of the epidemic. Epidemic prevention and control discourse is an important part of the national emergency discourse system, and it is a series of matters needing attention and solutions in response to public health emergencies[1]. Public health emergencies belong to emergencies in the field of public health. Because they do not have a specific mode of occurrence and are easy to damage public health or cause serious social harm, they are very easy to cause panic among the public and disturb people's physical and mental health, which even cause unpredictable damage to society[2]. In order to deal with sudden public security incidents, our country pays more and more attention to the use of discourse and the construction of national security discourse system[3]. The dissemination of epidemic prevention and control discourse through the news media plays a important role in the process of epidemic prevention and control in China, so this thesis is based on the modal system of interpersonal function. By summarizing the Weibo about epidemic prevention and control discourse released by *People's Daily* during 2020, in order to analyze the modal system involved in the self-built corpus, the focus of the research is to analyze the use of modal operators in epidemic prevention and control discourse.

2. Theoretical Framework

Halliday (1978)[4] held that language was a part of the social symbolic system, which could generate discourse and conveyed meaning in the process of communication. Combined with the view of situational context, the author holds that the understanding of language needs to be based on social and cultural context. All language activities and communicative behaviors take place in a certain context, and the speaker achieves the purpose of communication through the implementation of language in the context[5]. Systemic Functional Grammar holds that language can be realized and developed in the communication between people, and that people realize different semantic functions through the interaction of language in society. Therefore, Halliday (1966)[6] focused on the functional part of grammar and held that grammar expressed meaning through functional units, that is, sentence components. In explaining this theory, ZongXin Feng[7] held that the configuration of functions was used to explain the grammatical structure. Halliday (1973)[8] held that there were three meta-functions used to express functional meaning in the language system, that is, the three meta-functions of language: conceptual function, interpersonal function and textual function. Interpersonal function focuses on the communication and negotiation between the speaker and the hearer in the context, which can be used to express people's inference about things, as well as to establish and maintain people's social status, mainly through tone and modality. As one of the important theories of interpersonal function, modality can express not only the speaker's subjective attitude, but also the speaker's inference and guess about the proposition or proposal.

Modality can be divided into high, middle, and low levels of value according to the intensity of expression. The modal operator of which value the speaker choice needs to choose according to the needs of communication, thus conveying different degrees of will or obligation. For example, "may" or "might" often indicates the obligation of low value, "will" or "should" indicates the obligation of medium value, and "must" or "need to" often indicates the obligation of high value. Under the theoretical framework of interpersonal function in systemic functional grammar, modal system mainly covers three aspects: modal operator, modal adjunct and interpersonal grammatical metaphor[9]. Modal adjuncts and interpersonal grammatical metaphors are rarely used in epidemic prevention and control discourse. therefore, the focus of this study is to investigate the frequency of modal operators in epidemic prevention and control discourse.

3. Analysis

During the epidemic prevention and control period, most of the major strategic decisions and epidemic control discourses issued by the Chinese government are spread through the news media[10]. Among them, *People's Daily* is the necessary official media to show people that the government has issued relevant discourses, so it plays an important role in the discourse system of epidemic prevention and control. The corpus in this self-built corpus comes from *People's Daily* account of 337 pieces of news about epidemic prevention and control posted on Weibo from January 1, 2020 to December 31, 2020. A total of 55586 characters, in order to analyze the modal operators involved, so as to better understand and use for people. Modal operators are classified according to different modal values, and low-value modal operators include affirmations: can, may, could, might, dare, be allowed; negation: needn't, doesn't need to, have to. The median value is positive: will, would, should, shall, be supposed; negative: won't, wouldn't, shouldn't. High value affirmation: must，ought to, need to, has/had to, be required; negation: mustn't, oughtn't to, can't，couldn't, mayn't, mightn't, hasn't / hadn't[11].

On the basis of the self-built corpus, this thesis uses the Corpus Word Paser word segmentation software to segment the text, and then uses the Antconc3.2 software to extract and count the modal operators of different modal assignments in the self-built corpus, and get the following data.

First of all, *People's Daily* released the epidemic prevention and control discourse Weibo, the frequency of use of high-value modal operators is higher than that of medium-value and low-value modal operators, and the retrieval results show that high-value modal operators "must", "can't", "need to", and "mustn't" account for 43%, 8.7%, 5.3% and 4.9%, respectively. The medium and low values of modal operators such as "will", "would", "should", and "wouldn't" account for 6%, 4%, 3.6% and 3.1% of the modal operators. From the above data, it can be concluded that the frequency of high-value modal operators is used very frequently in the discourse system of epidemic prevention and control. For example:

(1) All localities, especially the provinces around Hubei, *must* strengthen the communication and sharing of information and the coordination of prevention and control measures, earnestly strengthen the guidance of candidates, organize candidates to enter and leave examination sites and examination rooms at different peaks, and maintain a reasonable distance.

(2) The front line is working hard, and each of us *should* do our duty, and we *must not* allow the prevention and control of the hard-won epidemic to continue to reverse the situation!

In the above two example sentences, high-value modal verbs "must" and "must not" are used to strengthen the tone, express the credibility of the proposition, and improve the scientific nature and effectiveness of epidemic prevention and control. In the exchange of information in the state of emergency, the use of high-value modal operators can attract people's attention in a simple and direct way, get more accurate information. Increase the intensity of information release, simple and effective popularization of epidemic prevention measures, so as to maximize the spread of the epidemic.

Secondly, in the discourse of epidemic prevention and control, the proportion of positive modal verbs is relatively higher than that of negative modal verbs. It can be concluded from the data that the proportion of positive modal verbs such as "must"43%, "can" 6%, "need" 4%, etc. is higher than that of negative modal verbs "can't" 8.7%, "mustn't" 4.9%, "couldn't" 1.9%, etc. This shows that when publicizing the discourse of epidemic prevention and control, the use of positive modal verbs is often more polite than negative modal verbs.

(3) The epidemic *must* be strictly controlled, life need to be continued, social operation cannot be stopped, and epidemic prevention and production *need to* walking on two legs.

(4) Once the defense line is lost, the epidemic *can* drive straight in; if banished from duty, it *will* be held accountable.

In examples (3) and (4), the positive modal verbs "must", "need to", and "will" are used to convey people's firm belief in the prevention and control of the epidemic, and the epidemic must be strictly controlled so that people's lives can be carried out in an orderly manner. Affirmative modal verbs are more direct, have positive meaning, and can arouse resonance in the hearts of the public, which is conducive to the implementation of various arrangements by the government. The expression of positive modal verbs in epidemic prevention and control discourse can enhance people's sense of identity, ensure the stability and security of information content, and provide solutions for the public.

Finally, in the Weibo related to epidemic prevention and control discourse, the negative modal verbs account for the largest proportion of high-value negative modal verbs. Such as "can't" 8.7%, "must not" 4.9%, "could not" 1.9%, "hasn't" 0.85%. It shows that the attitude adopted by the state on issues related to people's lives and health is very clear, that is, anything that harms the lives and safety of the country and the people is absolutely not allowed.

(5) Advocate that it is necessary to have good hygiene habits, correctly adopt the "seven-step" washing technique, and not share towels and toiletries. Advocate separate meals, can not use tablespoons of public chopsticks when eating separately, and bring your own tableware as far as possible when eating at school.

(6) All personnel gathering activities shall be suspended, and any unit or individual *must not* hold any form of dinner activities.

Example (5) use the high-value negative modal verb "can not" in an euphemistic tone to warn people of the protective measures that need to be taken in the face of a sudden epidemic and the related matters that need to be paid attention to. In example (6), "must not any unit or individual holding any form of dinner activities" uses the strongest negative modal verbs to express the country's responsible attitude towards epidemic prevention and control, and restricts and regulates people's behavior with compulsory measures. From the above example sentences, we can see that the relatively colloquial negative modal verbs can cause the public's position convergence and emotional resonance, mobilize the public forces to stop the epidemic, and contribute their own strength to the epidemic prevention and control work.

4. Conclusion

From the perspective of modal system, this thesis takes all the news words about epidemic prevention and control released by *People's Daily* in 2020 as the research object, in order to find out the general characteristics of modal operators. The conclusions are as follows: in the epidemic prevention and control discourse Weibo published by *People's Daily*, the frequency of high-value modal operators is higher than that of medium-value and low-value modal operators; the proportion of positive modal verbs is relatively higher than that of negative modal verbs; the highest frequency of negative modal verbs are high-value negative modal verbs. For the discourse of epidemic prevention and control, the use of high-value modal verbs can increase publicity efforts than medium-and low-value modal verbs, publicize and report the major arrangements of organizational work in a timely manner, so as to enable the people to understand the prevention and treatment of the epidemic in time. With the arrival of the post-epidemic era, our government advocates the establishment of a complete national emergency discourse system, and the position of actively participating in and constructing the epidemic prevention and control discourse system in the epidemic dynamic discourse is becoming more and more important. It is also hoped that this analysis can not only contribute to the study of modal system, but also provide some reference for the construction and spread of epidemic prevention and control discourse.

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