

Beijing 2022 Winter Olympics in the Perspective of Chinese and Foreign Media A Corpus-Based Study of Critical Discourse Analysis

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Abstract. This research uses corpus as a research tool and critical discourse analysis as the primary theoretical basis to explore the domestic and NOW corpus of the Beijing 2022 Winter Olympics. We found that: China Daily has taken advantage of Beijing 2022 Winter Olympics to shape the international image of China as a reliable, trustworthy, friendly, environmentally friendly, and clean power, which reflects the reality of China more comprehensively and objectively. Foreign news reports on the Beijing Winter Olympics are primarily positive, but there are still nearly one-third of negative evaluations. China still has a long way to construct a foreign-oriented publicity system. It is imperative to consider the acceptance of foreign audiences while making positive propaganda for China to optimize the foreign communication system, improve communication effectiveness, and enhance the effect of global communication.

Keywords: Corpus, Critical Discourse, Analysis, Reception.

1. Research background

In May 2021, the Political Bureau of the Central Committee of the CPC held a collaborative study on "the capability of international communication." President Xi Jinping emphasized that we must make a better China story and make China's voice better heard. We must deeply understand the necessity of strengthening international communication work in the new era^[1]. In foreign-oriented publicity, China sometimes ignores the audience and focuses too much on a generation of the discourse, which directly affects the discourse's dissemination effectiveness^[2]. Hosting Beijing 2022 Winter Olympics and Paralympic Winter Games (after this referred to as Beijing Winter Olympics) is a significant strategic opportunity for China to support the International Olympic Committee and promote the development of the international right to speech. Given this, the following study will take critical discourse analysis as a point-cut to explore the textual characteristics of China's publicity and the image of China that it spreads, taking China Daily's coverage of the Beijing Winter Olympics as an example. Meanwhile, the study observes foreign news coverage of the Beijing Winter Olympics and analyzes foreigners' reception.

2. Literature review

In recent years, many scholars have combined corpus and critical discourse analysis to find the deeper meanings behind the discourse, mainly employing keywords, index lines, and word collocations. Hu Kaibao and Chen Chaojing use the corpus approach to investigate the spread and acceptance of the term "Belt and Road Initiative" in foreign countries by using critical discourse analysis^[3]. Lien Shaoying and Mi Ruoyu analyze the report of The Wall Street Journal on the Covid-19 pandemic in China from the perspective of corpus and critical discourse analysis, pointing out the hidden ideologies behind the misleading accusation of the reality in China. Shao Bin and Hui Zhiming also analyze the different meanings of the "Chinese Dream" in the view of Western media by using a corpus method and critical discourse analysis, which provides a reference for the realization of the Chinese Dream and the construction of the Chinese communication system^[4]. Scholars have realized the importance of global communication in shaping the international image and improving its cultural

soft power and international discourse. The corpus and critical discourse analysis methods have gradually become the academic frontier. However, they are still lacking in the fields related to foreign audience acceptance, which often leads to a high quality of publicity but a common propagation effect. Currently, the focus of Chinese outreach work is gradually shifting from the generation of discourse to the audience acceptance perspective, and interdisciplinary research has given creative solutions to the dilemmas. However, these fields still have significant research value.

This study will focus on the following issues:

1. How to construct China's national image in *China Daily's* Winter Olympics-related publicity text and the features of the text content.
2. Foreign media's attitude toward the Beijing Winter Olympics and the social reality reflected behind it.

3. Data sources

3.1 Corpus of China Daily for Beijing Winter Olympics

According to the author's observation, there is no systematic large-scale corpus of Winter Olympic Games-related discourse. The pervasive *Lexis Nexis* news database is not suitable for research on our specific topics due to its comprehensive coverage and the large proportion of foreign media news, so we build a new corpus of Beijing Winter Olympics' outreach discourse. Taking one of the official Chinese news websites *China Daily* (www.chinadaily.com), as an example, we retrieved 4050 related news reports (until Mar. 1st, 2022), using "*2022 Winter Olympic*" as the search term. To better and comprehensively reflect the external publicity discourse status quo of the Beijing Winter Olympics, we collected the corpus according to three stages: before the opening ceremony, during the games, and after the closing ceremony, spanning from Jan. 26th 2022, to Mar. 1st, 2022, contains 902 news articles, with 96,655 Word Tokens and 8,563 Word Types 8563. To facilitate the later research, we unified the English names of the Beijing Winter Olympics in this corpus, as shown in the following figure. The final word frequency of "*Beijing 2022*" is 414, and we named the corpus as Corpus of *China Daily* for the Beijing Winter Olympics, abbreviated as CCD corpus.



Figure 1 Merging the English translations of the Beijing Winter Olympics

3.2 NOW Corpus

The NOW (News on the Web) corpus, developed by Professor Mark Davis of Brigham Young University, is one of the world's largest and most complete news corpus. It covers 14.6 billion words by now and updates constantly at a rate of at least 180 million to 200 million terms per month. It contains news data from media in 19 countries or regions and designs for all aspects of politics, economics, and culture. The corpus also has a powerful search function that facilitates visual analysis of the corpus from different times and regions. It is a good machine for studying Linguistics at present and a virtual channel for gaining insight into public opinion. The authors use "*Beijing 2022*" as the search term through the NOW corpus and save search results as a data-set for comparative analysis.

4. Research methods

4.1 Critical Discourse Analysis

The concept of Critical Discourse Analysis (CDA) was introduced by Fairclough (1989), who argued that the use of "critique" has a special meaning and aims to reveal hidden connections that may be difficult to detect, such as links between language, power, and Ideologies^[5]. The emergence of critical discourse analysis theory has led to a new phase in Linguistics, providing new tools and perspectives to understand better the subtle connections between language or symbols and society. Tang Liping suggests that the space of the role of corpus linguistics in critical discourse analysis lies mainly in the study of a large number of already formed semantic expressions in an inter-textual setting^[6]. The corpus tool has provided new traction to the development of critical discourse analysis and enriched its theory. The new tools make up for the deficiencies of small scale and lack of data support of traditional critical discourse research, becoming an original direction of current translation studies.

4.2 Research Approach

Supported by the theory of critical discourse analysis, this paper analyzes the foreign news discourses related to China's Winter Olympics from the perspective of the corpus. It explores texts' role in constructing China's national image utilizing systematic sampling analysis of index rows and drawing a PCA clustering diagram. With the help of the NOW corpus, we conducted relevant corpus retrieval and integration analysis to understand the evaluation and acceptance of the Beijing Winter Olympics by foreign media. The corpus can make the research results more objective through extensive data.

5. Analysis of results

5.1 Text analysis based on CCD corpus

5.1.1 Index line analysis

We imported the CCD corpus into AntConc 3.5.8 software and used its "Concordance" function, "Search Term" as "Words," "Search Window Size" as "75". Four hundred fourteen pieces were retrieved and arranged vertically in chronological order, and then we extracted one part of the data for every 20 bits of data. The sampling results are shown in the following Figure 2.

ceremony. International Olympic Committee President Thomas Bach summed up	Beijing 2022	as a "truly exceptional" success and expressed the "deepest thanks and gra
counts on all platforms have received over 2.7 billion visits for the	Beijing 2022	,setting a new record for Winter Olympics. The Beijing 2022 itself notched
xample of classic Olympic rivalry in ice hockey, day 16 of competitions at	Beijing 2022	proved a celebration of girl power in sports with female Olympians shining
s total population. As introduced by Liu, other important legacies of the	Beijing 2022	include a swathe of Olympic venues that will benefit local people for
ice, Bing Dwen Dwen spreads love and warmth around the world. The	Beijing 2022	is a grand meeting and reunion in the midst of hardship of
mission of sustainability and promoting the three main competition areas. "	Beijing 2022	has accelerated the high-quality development of Beijing, Yanqing and Zhang
cess. Venezuelan President Nicolas Maduro said he firmly believed that the	Beijing 2022	will achieve historic success and carry forward the Olympic spirit of peac
he Olympic Games showcases the best of humanity and sport competition, and	Beijing 2022	will be no different," Sarah Hirshland, CEO of the US Olympic & Paralympic
world that has been battling COVID-19 for two years. She wished the	Beijing 2022	a complete success. Athletes of the Beijing 2022 have said the closed-loop
pressure that comes with the COVID-19 pandemic, our gathering here at the	Beijing 2022	is especially precious and warm. Together for a shared future. This is
popularity of the mascot Bing Dwen Dwen. The successful staging of the	Beijing 2022	Winter Games represents a great victory for sports over the COVID-19 pande
icial website of the Beijing Organizing Committee. "The preparation of the	Beijing 2022	Games greatly ignited the Chinese people's enthusiasm for winter sports an
. That victory, however, earned him a spot on the team for the	Beijing 2022	, where he is continuing to prepare his own slalom skis- as he
nation to engage itself in international cooperation by staging the Games.	Beijing 2022	is in line with its concept of delivering a green and sustainable
the humanist spirit of the ancient Greeks is being revived, in the	Beijing 2022	, that successor to the noble Greek pastime in which athletes from all
ummer Olympics. Tanzanian President Samia Suluhu Hassan said he wishes the	Beijing 2022	and Winter Paralympics a complete success. Venezuelan President Nicolas Ma

Figure 2 Search results for index rows of the search term in the CCD corpus

As Figure 1, in general, China's media conveyed this Beijing Winter Olympics' glittering from all aspects. Also, they received blessings and praises from some national officials and the IOC (International Olympic Committee). *China Daily* has primarily maintained a neutral or positive attitude in its outreach about Beijing Winter Olympics. At the word level, "Truly exceptional success" and "complete success" express the international recognition of the Beijing Winter Olympics and China's continuous efforts and innovation to organize a successful Games. The words

"sustainability," "green," and "shared" reflect China's green, shared, open and clean philosophy of running the Olympic Games. It also reveals that China has made honest endeavors in environmental protection. Covid-19 is still serious, and it is difficult to successfully hold a significant and safe international event under such a difficult situation. The *Warm* and *precious* Beijing Winter Olympics highlights China's long-standing emphasis on epidemic prevention and the success of the games' strict closed-loop management policy. Words such as "girl power" and "humanity" stress China's importance in protecting athletes' rights and are a powerful rebuttal to inappropriate statements made by individual Western media. Beijing Winter Olympics and the use of its legacy have played a principal role in the economic development of Beijing and Zhangjiakou, promoting inter-regional exchanges in the areas of culture, tourism, and transportation. It proves that Beijing Winter Olympics are not "labor-intensive" but a "win-win." The Chinese media have conveyed to the outside world the image of a responsible country that is inclusive and open, green, and attaches importance to human rights, conducive to enhancing China's international affinity and thus its international discourse.

5.1.2 Analysis of high-frequency word clustering

Principal Component Analysis (PCA) is a handy multivariate data analysis tool that can downscale and project the original variables onto a few new composite indicators (principal components), which eliminates the correlation effects between the actual variables^[7]. PCA is widely applied in feature extraction, the most compelling feature extraction to simplify complex models^[8]. Therefore, we further study the characteristics of Chinese foreign propaganda texts by visualizing the clustering of high-frequency words in virtue of the ScatterPlot function of Voyant Tools (voyant-tools.org). First, after importing the China Daily corpus into the website, we selected PCA as the plotting algorithm so that only the top 30 original word frequencies. The tool divides word frequencies into Raw frequencies and Relative frequencies, and the website performs pre-processing data operations such as deactivation of the data text) in the corpus were collected in the figure. The results are shown in Figure 3.

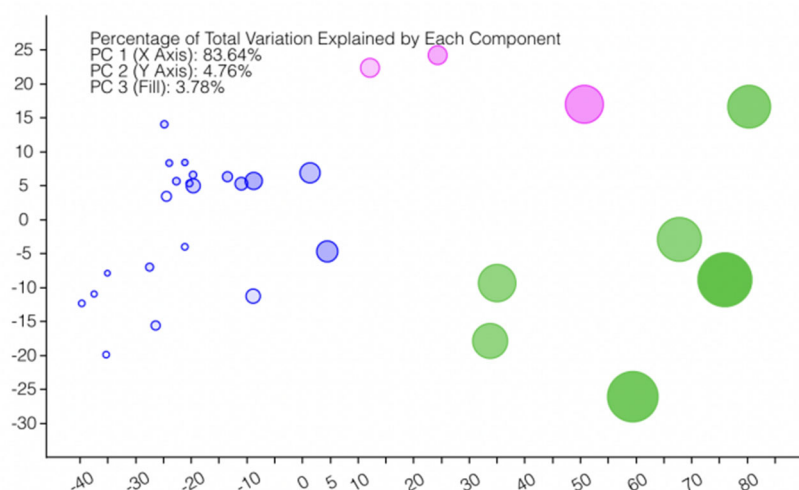


Figure 3 Clustering distribution of high-frequency words based on PCA algorithm

Word	Freq.	Word	Freq.
beijing	822	ice	193
said	772	new	190
olympic	678	time	180
games	661	years	163
winter	592	team	156
china	585	china's	155
2022	550	country	154
chinese	351	snow	148
olympics	337	national	144
sports	319	covid	143
athletes	319	gold	142
world	295	ceremony	142
year	254	pandemic	138
people	251	opening	135
international	231	development	129

Clustering 1
 Clustering 2
 Clustering 3

Figure 4 Table of high-frequency words involved in the clustering distribution chart

Notional words mean words with actual lexical and grammatical meanings. The multiple occurrences of a notional word in the news will mirror the opinion tendency of information. Its analysis is helpful to uncover the ideology and values behind it, thus providing more substantial evidence to support the research of critical discourse^[9].

As Figures 3 and 4, Cluster 1 contains words such as "*Beijing*," "*said*," and "*Olympic*," and these words have a high frequency. The frequency of these words reflects the theme of the Beijing Winter Olympics in these outreach texts. The verb "*said*" appears 772 times. After further searching the context of this word, we found that the subject who appears before "*said*" is often the one who makes a statement. For example,

1. "*The second is testing at the airport. The third is testing inside the closed-loop system,*' McCloskey said."

2. "*The world is turning its eyes to China,*' Xi said in his New Year address."

From which, we can conclude the English text's regular feature of labeling the source^[10]. It can also improve the authenticity and reliability of the news and enhance the persuasiveness of the reader to a certain extent.

Cluster 2 includes the words "*winter*," "*sports*," and "*athletes*," which makes an intuitive reflection of *China Daily*'s coverage of the Beijing Winter Olympics. Most of them focus on the performance of athletes in different sports. The formation of this cluster is accessible because athletes from different countries are one of the dominant subjects of the games. By searching the news headlines, we found that *China Daily* made a lot of individual reports on athletes during the games (Feb. 4th - Feb. 20th), such as

1. "'*Legendary athletes making a mark at Winter Olympics,*' Shiffrin's hopes keep going downhill."

2. "*Krol in pole to maintain Dutch dominance.*"

These news stories feature the careers, interviews, and feelings of athletes such as Claudia Pechstein, Shaun Roger White, and Thomas Krol and show that Beijing Winter Olympics thinks highly of athletes.

Cluster 3 contains the words "*world*," "*international*," "*ice*," "*covid*," "*pandemic*," and so on. This cluster visualizes the impact of the Beijing Winter Olympics in various fields. At the same time, cluster 3 is also related to the concept of the slogan, "*Together for a Shared Future*." For example, "*ice*," "*new*," and "*snow*" implies that Beijing Winter Olympics have ignited the interest of the general public in ice and snow sports. It accelerated the vision of "*Engaging 300 million people in winter sports*" proposed in 2015 and drove the popularization of ice and snow sports in China to enter a new stage. The words "*people*," "*international*," and "*world*" explain the concept of *human community with a shared future* advocated by China, which is also the embodiment of the ideology of socialism

with Chinese characteristics. At the same time, they also illustrate the role of the Beijing Winter Olympics in building China's image as "a major responsible country." The words "*covid*" and "*pandemic*" allude to the difficulties of running the Olympic Games against the backdrop of the corona-virus epidemic and the great importance attached to the safety and security of Olympic personnel in the Winter Olympics. President Xi Jinping emphasized that the string of epidemic prevention and control should always be tightened. With the successful hosting of the Winter Olympics, China's initiatives on epidemic prevention and control have confirmed the superiority of socialism with Chinese characteristics.

5.2 Text analysis based on NOW corpus

5.2.1 Coverage of country distribution

We used the Chart function of the NOW corpus to search for the term "*Beijing 2022*" and set the period from Jan. 1st to Mar. 10th, then checked "Frequency by country" and got the results shown in the figure below.

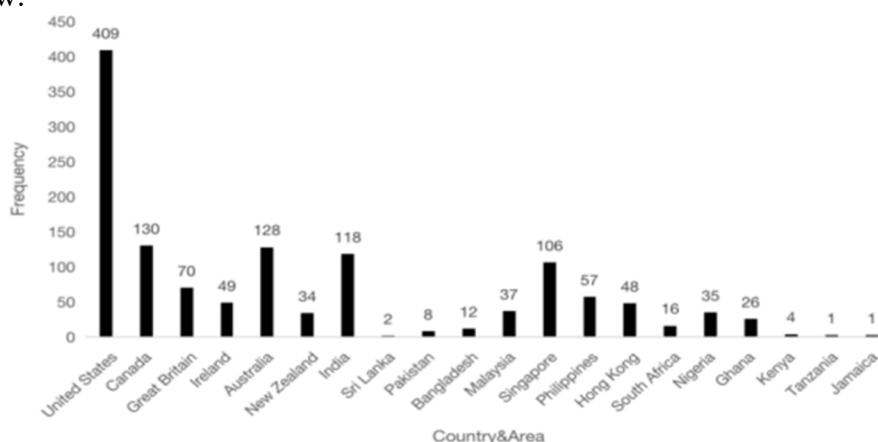


Figure 5 Histogram of the frequency distribution of search terms reported by countries or regions

The NOW corpus collects reports on the Beijing Winter Olympics from 19 countries or regions where English is the official language. The frequency of search words in the pieces of the United States, Canada, India, Australia, and Singapore on the Beijing Winter Olympics was more than 100. This phenomenon may be related to the international influence of the U.S., which still has a solid international right to speech. China and the U.S. are the two largest economies in the world. The relationship between China and the U.S. is a determining factor in the pattern of the world. The U.S. is also the country with the most athletes participating in the Beijing Winter Olympics, so reports on China are understandable. Canada, Australia, and India are China's trading partners and have close economic ties with China. India, which shares a border with China, also regards China as a "competitor," so it pays more attention to China. Singapore is a society in which ethnic Chinese is predominate. They are justifiably concerned about mainland China, even though its official language is English. The United Kingdom, Ireland, New Zealand, and Hong Kong have more coverage of the Beijing Winter Olympics, probably because China has closer import/export relations with these countries or regions. These countries are often the primary choices of Chinese students. In Hong Kong, a special administrative region of China, the innate sense of belonging has led its mainstream media to pay more attention to mainland China, intending to increase the understanding of public participation in national issues. In contrast, African countries such as Tanzania and Zambia have less coverage of the Beijing Winter Olympics probably because they are geographically distant from China and are primarily located in tropical and subtropical regions. They lack climate conditions for ice and snow sports and thus have few athletes participating in the Winter Olympics and pay less attention to the Beijing Winter Olympics.

5.2.2 Index line and context-specific analysis

The frequency of "Beijing2022" in the NOW corpus is 3302 times, and we saved their indexed row retrieval results to research further. On account of the scale of the data, the lack of an extensive training set. The Winter Olympics is a novel topic; the current specific sentiment lexicon is not comprehensive to apply to the Winter Olympics topic, so the classical sentiment analysis methods such as machine learning and sentiment lexicon in Natural Language Processing do not apply to this study. To accurately determine the sentiment tendency carried by this text, we manually labeled the sentiment polarity in each index line, classifying them as positive, negative, and neutral. The annotation results are shown in the following Figure 6.

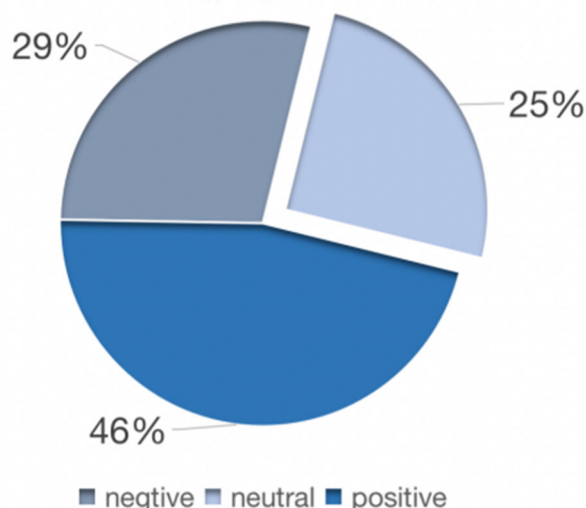


Figure 6 Index line's emotional tendency percentage chart

From Figure 6, we can see that most foreign media have a positive attitude toward the Beijing Winter Olympics, and the number of neutral texts is slightly less than the number of negative texts. Although the news media claims to be a "neutral third party," it is still difficult to be purely objective and truthful due to their political background, ideology, and personal experience^[11]. Most of the texts with negative tendencies focus on the athletes, indicating that the fundamental rights of athletes are not protected. A few media outlets associate the Winter Olympics with sensitive political issues in Xinjiang and Hong Kong, China, which are unwarranted fabrications that do not conform to the objective facts of China. For instance,

1. "Hui, the *We The Hongkongers* director. But this is the reality: Beijing 2022 is not the opportunity Olympic athletes were promised, and Thomas Bach and the IOC."
2. "The safety of athletes who might be contemplating speaking out about human rights issues during Beijing 2022. U.S. figure skater Vincent Zhou will not compete on Tuesday after testing"
3. "For months, rights activists have asked the Olympic committee to ensure that Beijing's athletes can compete in the Olympic Games. For months, rights activists have asked the Olympic committee to ensure that Beijing 2022 merchandise was not made under duress by Uyghurs in Xinjiang."

President Xi Jinping has repeatedly stressed the need to host a "simple, safe and wonderful" Winter Olympics. Simplicity means two things. The first is economic simplicity, that is, the use of the original venues to transform into new venues. It means a high utilization rate, environmental protection, and conservation, in line with the concept of green development. The second is political simplicity; the Olympics is pure, not to mix the Olympics and politics, without irrelevant topics to discredit the Olympic Games, and pay attention to the fairness and openness of the competition, eventually achieving clean Olympics. With the successful closing of the Winter Paralympics, China has proved that it has fulfilled its responsibility by achieving zero infection of Olympic-related personnel.

Some media have even publicly reported the diplomatic boycott of the Beijing Winter Olympics by some Western countries: "the U.S. and other democracies like Canada, the U.K., and Australia to boycott Beijing 2022 Winter Olympics and Paralympic Games. U.S. President Joe Biden had made that call", which is a "lose-lose" idea and contradicts the actual actions of the Western countries. The

author found that most of the negative news came from the British and American media, probably because of the frequency of coverage in the U.K. and the U.S., the larger text base, and the ideological differences with China. Since the second industrial revolution, the United States has gradually become one of the few superpowers which have long held a dominant position in international influence and discourse. In contrast, China's comprehensive national power has continued to leap forward after reform and opening up, threatening the interests of Western countries led by the United States, so a few media outlets may wear "colored glasses" to report on China. At the same time, this also shows that China should continue to improve the quality of its foreign publicity. Must make a better China story and make China's voice better heard, let more people see the real China, and improve the international discourse.

Of course, positive voices are mainstream. It may be because the Beijing Winter Olympics is an international event, an Olympics for people worldwide, and its public diplomacy value cannot be ignored. The Winter Olympics are conducive to promoting exchanges between countries and achieving shared prosperity. Japan's Tokyo 2020 Summer Olympics had to be postponed to 2021 because of the Covid-19 epidemic, while China held the Beijing Winter Olympics on schedule and successfully, which is undoubtedly worthy of recognition.

1. *"Its footprint and to make the Games more accessible to broadcasters around the world, Beijing 2022 also expanded the use of Alibaba's cloud-based content delivery platform, pioneered in"*

2. *"said Selina Yuan, general manager of International Business at Alibaba Beijing 2022 will also be the first time that broadcasters can edit the content."*

For example, the report mentions the vital role of Chinese company Alibaba's cloud technology in the Beijing Winter Olympics, reflecting the technology-driven nature of China's Olympic Games and the support of some Chinese companies to inject Chinese intelligence into the Games. "Some volunteers who served during Beijing 2008 are now working for Beijing 2022, which has also attracted hundreds and thousands of students to join as Games-time," and this article mentions the active participation of Chinese university students in volunteering for the Winter Olympics, highlighting the fact that China has a group of volunteers who serve both Beijing 2008 and Beijing2022. Beijing made history as the first city to host the Summer and Winter Olympic Games.

Neutral texts are mainly about the athletes, accurate descriptions of the opening and closing ceremonies, and descriptions of the initiatives taken to run the games. *"Tickets will be sold to next month's Beijing Olympics due to COVID-19, the Beijing 2022 Organizing Committee said. Instead, groups of spectators will be invited to the"* said the Beijing Organizing Committee due to the need for epidemic prevention and control in Beijing, Yanqing, and Zhangjiakou closed-loop management. So the Winter Olympics will not adopt the usual ticketing system but use the invitation method of group viewing, such as Zhangjiakou Uniform Distribution and Accreditation Center are invited to the Zhangjiakou Medal Plaza to watch the ceremony, which minimizes the risk of spreading the epidemic. *"Alcivar, who accompanied Ecuadorian President Guillermo Lasso to the opening ceremony of the Beijing 2022 Olympic Winter Games on Friday.", "the gold medal during the Women's Snowboard Halfpipe Final on Day 6 of the Beijing 2022 Winter Olympics at Genting Snow Park"* record the daily competition in Zhangjiakou Genting Snow Park and the personnel of the opening ceremony of the Beijing 2022, which do not involve apparent words with emotional tendencies.

6. Conclusion

This research uses corpus as a research tool and critical discourse analysis as the primary theoretical basis to study the domestic and international news corpus of the Beijing Winter Olympics. We found that

1. *China Daily's* publicity for the Beijing Winter Olympics was positive, creating China's image as a responsible, authentic, friendly, environmentally friendly, and clean country.

2. *China Daily's* Beijing Winter Olympics foreign publicity discourse text is well clustered, demonstrating China's current situation more comprehensively and objectively. However, China

should be brave enough to respond positively and take the initiative to respond to a few Western media.

3. Foreign news reports on the Beijing Winter Olympics are primarily positive, but there are still nearly one-third of negative comments.

China still has a long way to build its global communication discourse system. It is necessary to consider the acceptance of foreign audiences while making positive propaganda about China to improve the effectiveness of publicity. This study adopts the method of sample estimation as a whole and manual annotation, in which there may exist errors, and further research is needed. This study hopes to provide suggestions for optimizing China's foreign communication system and providing reference values for the discourse analysis of large-scale events.

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