# A Corpus-Based Critical Discourse Analysis of News Reports on the COVID-19 Pandemic in China and the UK

Hangyan Yu<sup>1</sup>, Huiling Lu<sup>1</sup>, & Jie Hu<sup>1</sup>

<sup>1</sup>Department of Linguistics, School of International Studies, Zhejiang University, Hangzhou, China, 310058

Hangyan Yu and Huiling Lu contribute equally to this article.

Correspondence: Jie Hu, Department of Linguistics, School of International Studies, Zhejiang University, Hangzhou, China, 310058. ORCID: http://orcid.org/0000-0003-2219-2587, E-mail: huj@zju.edu.cn

Received: December 9, 2020	Accepted: January 13, 2021	Online Published: January 17, 2021
doi:10.5539/ijel.v11n2p36	URL: https://doi.org/10.5539/ijel.v	11n2p36

# Abstract

Media, as important windows for the public to get to know timely information, play a vital role in influencing citizens' attitudes as well as behaviors. From 2019, the Coronavirus Disease 2019 (COVID-19) pandemic, a global health emergency, has aroused great concern of the international community, including media. Varied in cultural context, political stand, and people's ideology, however, media in different countries reported the COVID-19 dissimilarly. According to Fairclough's critical discourse analysis (CDA) model, it is posited that the discrepancies in the reports of the COVID-19 can reflect ideological differences and have explanatory power in the development of the COVID-19 in distinct countries. Based on this premise, by utilizing the database analysis software AntConc 3.2.4w on self-built corpora, this study analyzed the news reports of different stages on the COVID-19 in China and the UK, i.e., in China Daily and The Guardian, respectively, and attempted to reveal the discourse characteristics in the two media, together with the discussion on their possible relations to the pandemic-controlling practices. The corpus-based analysis showed that *China Daily* used more objective and neutral words in the descriptions of the COVID-19 and expressed more active attitudes in fighting against the epidemic, whereas The Guardian used more negative words in describing the pandemic and words with weak restricting force when reporting policies concerning the control and prevention of the COVID-19 pandemic. Moreover, the comparison between the discourse before and after the lockdown demonstrated that the descriptions of the COVID-19 in the UK media transformed into a more objective and neutral one than before with an increased use of expressions of restriction and social conflicts. The same comparison in the discourse of China Daily found that words about sharing experience and promoting cooperation augmented noticeably. The above-mentioned findings were also discussed together with these two countries' domestic epidemic situations and ideological differences, respectively.

Keywords: China Daily, corpora, COVID-19, critical discourse analysis, The Guardian

# 1. Introduction

Ever since the outbreak of Coronavirus Disease 2019 (COVID-19) pandemic, countries around the globe have adopted various measures to fight against the pandemic, among which sealing cities from the outside was a common practice, but the corresponding effect varied. Taking China and the UK as examples, ever since the outbreak of the COVID-19 pandemic, China and the UK have implemented mandatory lockdowns on April 8, 2020, and on March 23, 2020, respectively, there were significant differences in the effectiveness of epidemic prevention, as evidenced by the fact that China has quickly contained the spread of the epidemic within a few months, while the number of confirmed coronavirus cases in the UK has continued to increase. Such differences are related to many reasons, such as the early policies and administrative orders, social-economic disparity and vulnerability, mobility and social distancing, the availability of healthcare facilities, climate, economic issues, balancing the open data and privacy protection policies (e.g., Yang et al., 2020), the difference in the levels of promulgated social distancing measures, as well as the difference at the time of promulgation among countries (e.g., Thu, Ngoc, Hai, & Tuan, 2020). Since the discrepancies between countries are noticeable (Chen & Hu, 2020; Chen, Li, & Hu, 2015; Chen, Zhang, & Hu, 2020; Hu, 2014; Jing, Li, Wei, Yang, Chen, & Hu, 2018; Xiao, Liu, & Hu, 2019), which calls for multifaceted analysis. However, there are still insufficient studies that have analyzed how news, as an important way for citizens to obtain information and policies about the epidemic, information and policies about the epidemic,

influences public behavior from a linguistic perspective. Therefore, based on the self-built COVID-19-related corpora, this study attempted to explore how the discourse of the official English language media in China and the UK affect public behavior and the process of the epidemic. Comparative analysis has been adopted to grasp the nature of the impact of distinct epidemic news discourse, and thus, give enlightenment for the effective use of news discourse in fighting against the epidemic. Moreover, this study attempted to reveal how news discourse was related to the ideological differences of countries, and thus might remind readers of interpreting news with a critical and open mind.

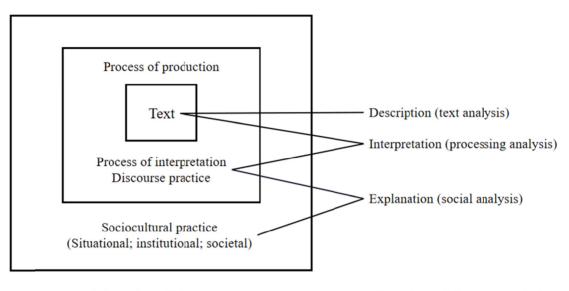
Departing from the research objectives above, this study selected the official English language news media in China and the UK, namely, *China Daily* and *The Guardian*, as the source to build COVID-19-related corpora from each medium's first report of the COVID-19 to the last piece of news when the lockdown was lifted. In addition, the blocking time of each country was selected as the demarcation in each corpus. To investigate the rationale of different discourse found in the above comparison, Fairclough's three-dimensional model for critical discourse analysis was taken as the theoretical framework (1995). Using the corpus software AntConc 3.2.4w, quantitative and qualitative methods were applied to analyze the differences of words used in reporting the COVID-19 between these two countries and the disparities before and after the lockdown in each country.

#### 2. Literature Review

Since the onslaught of the COVID-19, news reports on the epidemic have increased exponentially. Linguists from various countries have been collecting COVID-19-related discourse and have built epidemic corpora to interpret the relationship between the progress of the epidemic and related discourse from a linguistic perspective (Debnath & Bardhan, 2020). In general, studies on COVID-19-related discourse can be divided into two strands. One of them is the discourse analysis of COVID-19 topics on various social platforms. Studies have found that there were significant differences in the discourse about the epidemic of different groups on social platforms. For instance, one study found that among the contents related to the COVID-19 posted by Arab twitters, topics related to religion and health were dominant and generally passive (Essam & Abdo, 2020), which was also the case in Malaysia that the majority of the online letters associated the COVID-19 with negative expressions (Joharry & Turiman, 2020). On the contrary, another similar study carried on African Americans found they held a positive attitude towards fighting against the epidemic (Odlum et al., 2020). The other strand is the analysis of news discourse of mainstream media in various countries. The consensus was reached that news discourse concerning the epidemic in various countries can reveal their distinctive ideological and cultural backgrounds. For example, a study on the headlines in eight newspapers from four countries found that the differences in the naming of the epidemic were related to ideological differences (Prieto-Ramos, Pei, & Cheng, 2020). It was proven that people's understanding of the concept of "influencer" during the epidemic was largely affected by regional and socio-cultural backgrounds (Abidin, Lee, Barbetta, & Miao, 2020). Meanwhile, analogous conclusions can be drawn by taking Chinese mainstream media as the research object. For instance, through a discourse-historical approach, it was found that Chinese media closely intertwined the arguments of globalism and nationalism (Yang & Chen, 2020). In addition, research on the use of hedge in the news about the epidemic in China revealed that the way that Chinese media reported on the epidemic reflected the determination and courage of Chinese citizens, as well as the great efforts that the Chinese government took for the control of the epidemic (Chen & Xie, 2020). From the above review, a conclusion could be drawn that there were significant differences in discourse related to the epidemic in the news media of different countries. As the pioneer country fighting against the epidemic, China has achieved remarkable success in epidemic prevention and control. Currently, when the number of infected people is still surging, learning lessons from Chinese epidemic-related discourse and making cross-country comparisons are of great significance to all the countries that are currently being affected by the epidemic. However, through the literature review, there is a dearth of studies comparing epidemic discourse between China and other countries (Zeng & Xie, 2020). Based on this, this study attempted to fill in this research gap by comparing the news discourse corpora of diverse epidemic development stages in China and the UK. By exploring the characteristics of news discourse related to the COVID-19 in two countries, this study aimed to explore the distinct focus and stances of the media in the two countries, as well as the ideological differences behind them.

Regarding the theoretical framework, critical discourse analysis was selected, which reveals how discourse is affected by ideology and power relations, and emphasizes the effects of discourse (Chen & Hu, 2019; Chen, Yan, & Hu, 2019; Ding & Liao, 2001; Xiao, Li, & Hu, 2019). Among all the theories of critical discourse analysis, this study adopted the three-dimensional model proposed by Fairclough (1989, 1995). This model regards discourse as a three-dimensional concept involving text, discourse practice, and social-cultural practice (Fairclough, 1989). In accordance, three steps need to be followed in the discourse analysis, i.e., "description",

"interpretation", and "explanation" (Fairclough, 1995, see Figure 1). "Description" refers to the specific description of the structural features of the text. "Interpretation" is the analysis of the process of discourse formation, and "explanation" refers to the analysis of the relationship between discourse and society (Fairclough, 1995).



Dimensions of discourse

Dimensions of discourse analysis

Figure 1. The three-dimensional model of critical discourse analysis proposed by Fairclough

Under the guidance of Fairclough's three-dimensional model framework, this research aimed to solve the following two questions:

- (1) At the micro-level, what are the distinctions between the keywords in the discourse on the COVID-19-related news of different stages in China and the UK?
- (2) At the macro-level, what ideological differences can be reflected accordingly?

Based on the above research questions, this study first conducted a quantitative comparison of "Keyword List" in the news corpus of different epidemic development stages in China and the UK and then conducted a qualitative research on significant keywords through the context to dig out the in-depth reasons behind the discourse. By integrating quantitative and qualitative methods, this study realized the three steps specified by Fairclough's three-dimensional model framework, from "description" of the text at the micro-level, to the "interpretation" of the discourse, and finally to the "explanation" related to the society at the macro level.

#### 3. Methods

In this study, *China Daily*, the most authoritative English language publication in China; and *The Guardian*, one of the three most influential newspapers in the UK, have been selected as the corpus sources. Using "COVID-19" and "coronavirus" as search terms, samples of the news reports on the COVID-19 from *China Daily* and *The Guardian* in the "Lexis Advance" database were collected. This study took the first official report on the COVID-19 as the starting point and the time when the two countries were officially unblocked as the ending point. In other words, news reports dated from January 9, 2020, to April 8, 2020, from *China Daily* were selected to build the Chinese Media Corpus (CMC) and news reports dated from January 9, 2020, to July 4, 2020, from *The Guardian*, were selected to build the UK Media Corpus (UMC). The tokens in the CMC and the UMC corpus are 2,754,466 and 26,761,888, respectively. Meanwhile, to further analyze these two corpora, a two-phase comparative analysis was conducted using the lockdown time for corpus segmentation. To be specific, January 23, 2020, is the segmentation date for the CMC, and March 23, 2020, for the UMC. As a result, the CMC was segmented into CMC 1 and CMC 2, while the UMC was divided into UMC 1 and UMC 2, respectively.

According to Fairclough's three-dimensional model, in the "description" stage, it was needed to describe and compare the characteristics and differences of the words in the three pairs of corpora. Therefore, this study used

the "Keyword List" function in AntConc, which could perform a statistical comparison between the target corpus and the reference corpus, where the significantly high-frequency words in the target corpus relative to the reference corpus were listed from top to low according to the degree of difference, also referred as "Keyness" in AntConc. Because the comparative result of keyword list foregrounds the features of the target corpus different from the reference corpus, the statistical results of a single corpus in each pair of corpus groups serving as the target corpus and reference corpus have completely different research meaning. Consequently, three pairs of corpus groups in this study have been statistically processed twice. After the "description" of the keyword list, it was necessary to "interpret" the formation process of the utterance, specifically, the keyword list obtained in the "description" stage needed to be analyzed for its contextual meaning. For this purpose, this research conducted a qualitative analysis of each word in the keyword list through the function of "Concordance" and "File View" to examine the role of the words in the formation of the discourse. Based on this qualitative analysis, some keywords had limited semantic meaning in the research, such as functional words (e.g., "a", "the", and "it"), words on news and publication information (e.g., "Guardian", "com", and "Daily"), and words not related to the epidemic (e.g., "say" and "think"). These words were deleted leaving only 30 keywords for further "interpretation". Subsequent to the above two steps of "description" and "interpretation", this research stepped into the third stage of "explanation", which means to have an interpretation of the different discourse characteristics related to the social backgrounds of China and the UK, to reveal the hidden power, ideology, social and cultural factors in the social context.

## 4. Results and Discussion

## 4.1 Comparison Between the CMC and the UMC

Quantitative analysis results of the keyword list between the UMC and the CMC were presented (see Table 1), followed by qualitative analyses using the function of "Concordance" and "File View".

Rank	UMC as Target	Corpus		CMC as Target Corpus		
	Keyword	Keyness	Frequency	Keyword	Keyness	Frequency
1	Covid	10530.990	56197	China	108850.879	37782
2	UK	4000.027	37906	novel	37170.707	9846
3	London	2758.258	27943	Hubei	25640.212	6855
4	Australia	2518.186	25593	epidemic	24172.992	8014
5	minister	2417.003	23019	Chinese	23742.721	9367
6	NHS	2202.194	14237	province	22362.715	7047
7	bn	2011.374	10346	Wuhan	19784.314	7526
8	Trump	2011.138	31837	COVID	13321.038	5134
9	England	2001.932	13626	outbreak	10176.020	8542
10	Australian	1645.801	11745	medical	8675.245	6613
11	prime	1547.694	11876	Shanghai	8563.307	2440
12	Johnson	1529.814	13418	prevention	8355.769	2377
13	distancing	1467.509	13357	mainland	8143.269	2581
14	police	1233.274	16120	Beijing	7963.017	3485
15	Wales	1187.557	6708	Hospital	5481.582	2025
16	government	1183.790	65254	enterprises	5389.533	1333
17	Morrison	1179.952	6501	fight	4563.016	2717
18	NSW	1111.722	5674	production	4482.973	2548
19	WORLD	1040.207	5309	pneumonia	4458.107	1693
20	figures	903.232	8958	patients	3968.258	4435
21	Victoria	895.444	5536	Xi	3821.517	1340
22	centre	883.804	4694	efforts	3737.117	2443
23	Biden	881.217	6098	billion	3708.675	1705
24	Queensland	852.663	4534	Central	3691.379	1553
25	advice	848.126	9626	Spring	3497.591	892
26	crisis	841.442	24187	Guangdong	3409.869	882
27	reopen	838.318	7781	epicenter	3347.564	829
28	scheme	805.783	5246	confirmed	2815.867	4886
29	Cummings	800.939	4317	cooperation	2804.468	1129
30	restrictions	785.219	15199	imported	2749.050	1112

Table 1. Keyword list comparison between the UMC and the CMC

(1) *The Guardian* used the word "advice" more frequently than *China Daily* did. "Advice" was often used by the UK government to call on its citizens to cooperate under the guidance of the epidemic-related policies, but since "advice" did not express compulsory constraints, citizens might still not follow the measures carried out by the UK government for various reasons. Just as what was reported in the following excerpt from *The Guardian* on March 14, 2020, "*However, despite the government's latest advice, the 44-year-old mother of two young children said: 'I can't afford to not go to work. If I don't go, I can't get paid*", though the UK government was aware of the fact that the epidemic was rampant and the restriction of the flow of the personnel was necessary, instead of using words with more restricting force, the word "advice" was selected for cultural and ideological reasons. It shows that, as one of the Western countries, the UK highly emphasizes individualism, respecting individual freedom, and the government hasn't been given the right to interfere excessively in an individual's choice. Therefore, unlike China, the UK faced the challenge of mobilizing citizens from all sectors with concentrated efforts for one goal, such as fighting against the epidemic together in this case.

(2) The word "crisis" appeared more frequently in *The Guardian* than in *China Daily*. Through qualitative analysis, it was found that *The Guardian* has repeatedly used "crisis" to refer to the epidemic, even directly calling it "coronavirus crisis". Taking "coronavirus" as the search term, this research utilized the function of "Clusters" in the UMC and the CMC, respectively. It was found that the "coronavirus crisis" in *The Guardian* ranked the eighth among all the two-word clusters related to "coronavirus", with a total frequency of 5,020 words. On the other hand, it only ranked the fiftieth in *China Daily*, with a frequency of only 58 times. The possible reason for *The Guardian* using more "crisis" to refer to the epidemic may be to better alert the public, but it would inevitably increase people's panic, pessimism, and anxiety in the long run, which would ultimately destabilize the society. In contrast, China utilized more neutral and scientific terms such as "epidemic" and "pneumonia" for reference. The disparity in the use of "crisis" by the news media of the two countries shows the difference between the Chinese and Western discourse modes, namely the "conflict" discourse mode of the Western media and the "harmonious" discourse mode of the Chinese media (Feng, 2013). These two modes of discourse reveal the cultural backgrounds where the Western world stresses competition, while Chinese culture emphasizes more balance and harmony than the UK culture.

(3) *The Guardian* used "reopen" more frequently than *China Daily* did. Through qualitative analysis of the context, the urgent need to revitalize the economy from all sections was salient. As shown in Figure 2, the frequency of the word "reopen" in the two media has been gradually increasing over time, and the frequency of "reopen" in *The Guardian* (7,871 times) was significantly higher than that of in *China Daily* (126 times). Differences in national systems might account for the distinction in the use of "reopen" between the two media. It illustrates that when the market economy was seriously affected during the pandemic, people's call for the economic recovery was noticeably higher. In contrast, Chinese government puts people's safety and health as the priority and thus kept the economy and business shut until the COVID-19 was under control.





(4) In reporting the fight against the pandemic, *China Daily* used more words with positive attitudes such as "fight", "efforts", and "cooperation". Through the qualitative analysis of the context, it could be concluded that the use of the above words fully demonstrated China's decisive actions in fighting the COVID-19 and its determination to vigorously promote international cooperation in the face of the pandemic. This finding was consistent with the results of other comparative studies on Chinese and Western news corpora (e.g., Li, 2017). Taking the climate issue as an example, China has been actively fighting against climate change and promoting international climate cooperation (Li, 2017), which fully demonstrated the morale of Chinese people and the spirit of pulling together in times of trouble which is deeply rooted in the orient culture.

## 4.2 Comparison Between the UMC1 and the UMC2

Quantitative analysis results of the keyword list between the UMC1 and the UMC2 were presented (see Table 2), followed by qualitative analyses using the function of "Concordance" and "File View".

Rank	UMC 1 as Target Corpus			UMC 2 as Target Corpus	UMC 2 as Target Corpus		
	Keyword	Keyness	Frequency	Keyword	Keyness	Frequency	
1	Sanders	3505.367	1994	reopen	2305.703	7612	
2	Wuhan	3160.402	2757	police	1577.995	14830	
3	China	2612.079	6866	deaths	1513.711	22104	
4	outbreak	2516.984	6557	Floyd	1492.883	3604	
5	Hubei	1766.510	945	app	1402.924	5345	
6	markets	1581.302	4562	Cummings	1273.467	4238	
7	Bernie	1436.483	848	protests	1015.738	4322	
8	Italy	1387.915	3088	jobkeeper	990.129	2330	
9	Chinese	1347.902	2610	PPE	865.344	3734	
10	spread	1269.401	4850	scheme	671.439	4898	
11	panic	1190.650	1094	hydroxychloroquine	653.278	1678	
12	cancelled	1174.977	1630	easing	622.064	3487	
13	Biden	1126.012	2294	distancing	587.907	11836	
14	advice	1072.642	3202	restrictions	580.684	13393	
15	close	1056.379	3342	unemployment	573.213	4378	
16	Iran	981.029	1377	care	545.583	17705	
17	suspended	963.772	1373	tracing	536.141	3467	
18	postponed	927.299	972	study	524.048	3921	
19	Bloomberg	815.109	605	rules	516.756	8275	
20	stock	790.674	1335	George	513.190	3729	
21	gatherings	734.610	1504	racism	475.312	2159	
22	Dow	726.045	585	BAME	465.375	1227	
23	stimulus	719.438	1256	furlough	440.619	1510	
24	isolate	707.077	1378	recovery	420.408	4490	
25	Japan	704.980	1313	Starmer	412.592	2057	
26	flu	695.963	1174	Sage	403.287	1401	
27	confirmed	672.067	5003	restart	402.273	1488	
28	ban	669.849	1417	Minneapolis,	399.032	1012	
29	sick	654.438	1386	Cuomo	369.387	3586	
30	Buttigieg	622.934	239	toll	366.856	8539	

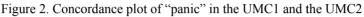
Table 2. Keyword list comparison between the UMC 1 and the UMC 2

(1) Before the UK blockade on March 23, 2020, there were very few words closely related to the medical care in the top 30 rankings in terms of keyness, namely, "isolate", "confirmed" and "sick"; whereas, there were 11 words after the blockade, namely, "Floyd", "app", "PPE", "scheme", "hydroxychloroquine", "distancing", "care", "tracing", "study", "furlough" and "recovery". This result demonstrated that the UK government did not take the pandemic seriously before the lockdown as much as what the government did afterwards. Besides, words such as "police", "restriction", "distancing", "rules" and "furlough scheme" appeared more frequently after the lockdown while the number of times using the word "advice" had decreased. This result could imply that the UK government has implemented stricter pandemic control policies with increased supervision than before. Additionally, from keywords such as "tracing" and "app", it could be concluded that the UK has begun to use high-tech positioning technology to monitor the development of the epidemic. Keywords such as "PPE" (personal protective equipment), "hydroxychloroquine", and "study" also showed that the UK has put more emphasis on spurring the research on medical treatment of the COVID-19.

(2) Through the comparison before and after the blockade, significant differences in the use of "panic" in *The Guardian* were identified. Before the blockade, the keyness of "panic" was 1,190.650, ranking the eleventh, being the adjective with the highest keyness; whereas, after the blockade, the keyness of "panic" was significantly reduced. The rationale of this overuse of "panic" in the initial stage was similar to the above analysis on "crisis" which would lead to undesirable consequences. However, the transformation from high-frequency use of "panic" to low-frequency use proved that *The Guardian*'s reports on the pandemic have been gradually becoming more objective and neutral. To illustrate the difference in the use of "panic" before and

after the blockade more visually, this study used the "Concordance Plot" function to show the comparison of the frequency of "panic" between the UMC1 and the UMC2 (see Figure 3), where the coverage of black in the second plot was smaller than the first one, indicating the frequency of "panic" was considerably lower.





(3) By analyzing the words related to social conflicts in the keyword list such as "jobkeeper", "unemployment", "BAME" (United Kingdom Black and Minority Ethnic (UK-BAME)), "racism", "protest" and "Protesters" through the qualitative method, a conclusion could be drawn that due to the impact of the epidemic, a large number of UK citizens became unemployed, which intensified the inequality issue. To some extent, this discovery revealed the deep-rooted social problems of the capitalist system in the UK.

## 4.3 Comparison Between the CMC1 and the CMC2

Quantitative analysis results of the keyword list between the CMC1 and the CMC2 were presented (see Table 3), followed by qualitative analyses using the function of "Concordance" and "File View".

Rank	CMC1 as Target	Corpus		CMC 2 as Target Corpus		
	Keyword	Keyness	Frequency	Keyword	Keyness	Frequency
1	Taiwan	95.792	128	Italy	196.824	1387
2	novel	89.558	1148	imported	133.578	1101
3	medical	84.976	808	Iran3.	122.818	799
4	Hospital	80.747	304	Korea	120.823	1049
5	holiday	75.614	155	infections	81.248	2319
6	outbreak	75.380	993	Europe	76.663	700
7	patients	73.216	563	global	73.119	2986
8	province	70.248	832	US	64.711	4250
9	infected	65.270	288	York	59.440	856
10	confirmed	61.350	595	Spain	49.769	380
11	suspected	52.908	141	positive	47.127	1269
12	Huoshenshan	50.334	63	UK	46.906	611
13	masks	47.517	318	Japan	46.567	963
14	Spring	47.262	143	Tokyo	46.393	360
15	Hubei	46.993	773	Hopkins	46.053	249
16	virus	46.087	823	Johns	45.129	244
17	Dali	44.992	24	experience	39.555	667
18	public	44.944	397	world	38.985	2832
19	Lunar	44.719	59	distancing	37.731	204
20	Hua	44.150	58	Olympics	36.630	242
21	city	42.618	390	oil	34.705	445
22	commission	40.566	136	prison	32.552	176
23	Festival	40.087	138	inbound	30.165	262
24	fever	39.712	103	tested	30.019	812
25	SARS	37.734	104	Italian	28.374	275
26	emergency	36.772	204	recession	27.928	151
27	rat	36.378	18	Street	27.743	221
28	Lele	35.315	20	economies	27.149	311
29	island	35.200	48	resumption	26.772	477
30	drug	35.083	73	cooperation	25.906	1074

#### Table 3. Keyword list comparison between the CMC 1 and the CMC 2

A noticeable increase in the keyness of "experience" and "cooperation" was found comparing the CMC 1 and the CMC 2. A qualitative contextual study of these two words showed that "experience" mostly referred to China's experience in fighting the epidemic, aiming to share China's experience in effectively controlling the pandemic with other countries. Just as reported in this excerpt from *China Daily* on February 24, 2020: "*lessons can be learned from China's experience to help all countries defeat this common enemy through awareness, responsibility, and prompt action*". The word "cooperation" was often used to call on other countries to combine their efforts in fighting against the pandemic, which was also reported from the following excerpt on March 25, 2020, from *China Daily*: "Xi reiterated China's advocacy of boosting global cooperation in fighting the pandemic based on the vision of a community with a shared future for mankind." The frequent use of "experience" and "cooperation" is consistent with the Chinese government's stance that the international community should work together in response to the COVID-19. Cooperation is of utmost importance in today's community with shared destiny for mankind, because no matter which country it is, it cannot stand without the help and support from the international community (Chen & Hu, 2021).

## 5. Conclusion

Based on the coverage of the epidemic in different stages of the news media in China and the UK, this study utilized corpus linguistics software AntConc 3.2.4w to have a critical discourse analysis of self-built corpora by using quantitative and qualitative methods. By utilizing "Keyword List", "Concordance", "Collocates", "Concordance plot" and "File View" and other functions, this research had an in-depth analysis of the keywords with significant differences, thereby revealing the different language strategies adopted by the Chinese and UK media in reporting the epidemic and thus unveiling the ideological differences behind. The main findings of this study are listed as follows. First, by comparing the UMC and the CMC, it was found that Chinese media used more objective and neutral words to describe the epidemic and words used in how to deal with the epidemic showed strong morale; whereas the UK media described the epidemic in a comparatively negative manner. This finding reflected the differences between the "harmonious" and "conflict" discourse modes of the Chinese and UK media regarding emergencies, as well as the ideological differences between the two countries. Second, discourse characteristics of The Guardian and China Daily before and after the lockdown reflected the changing attitudes and actions toward the epidemic control between the two countries, which also indirectly revealed two countries' ideological differences. Through the comparison between two stages in China and the UK, an increasing use of "experience" and "cooperation" was observed, which indicated that China has been consistently sharing experience with other countries and calling for more international cooperation. Lessons can also be drawn from the comparison of the UK media discourse in two stages. More specifically, although the UK did not control the spread of the pandemic as effectively as China did after the blockade, a positive change of news discourse before and after the blockade in the UK media could still be found, with more attention paid to the medical prevention and physical restriction. This finding could play a positive role in inspiring other countries struggling with the pandemic to reconstruct their news discourse following the positive transformation that the UK media has undergone. An undesirable outcome of the pandemic, however, was also inferred in the discourse of UK media in the second stage, that words related to social conflict increased noticeably, so more attention and solid measures should be taken to solve these problems.

By comparing the news corpus of the two major news media, *China Daily* and *The Guardian* on the reports of the COVID-19 at different stages, the results of this research could inspire readers to interpret one specific issue in different stages from a critical perspective, thereby making readers aware of the influence of national ideology on the discourse of news reports. In addition, by comparing the methods of pandemic news reports in different countries, this study further advised the media to make full use of the positive effects of the discourse, to optimize the discourse strategy use in reporting news on COVID-19. Experience sharing and international cooperation were also suggested in concordance with the stance of China to triumph in the battle with the pandemic for mankind.

Limitations of this study lie in the following perspectives. First, since the development of the COVID-19 in different countries was influenced by a multitude number of factors, and it is impractical to control all the other factors, so the findings of this study are highly reliant on the correlation rather than strict causation. Second, until now, the COVID-19 has not reached an end, so the discourse collection of this study is not the complete picture of the development of pandemic, and thus cannot disclose the discourse features to the fullest in this regard. To address the listed limitations, further investigations are correspondingly suggested. First, to mitigate the intervention of other factors, comparative studies could be initiated among different countries holding backgrounds similar. Second, an expanded time-line is suggested to generate a more in-depth analysis of the development of the COVID-19 in different stages.

#### Acknowledgments

The authors gratefully acknowledge the research project supported by the Philosophical and Social Sciences Planning Project of Zhejiang Province in 2020 [grant number 20NDJC01Z], Second Batch of 2019 Industry-University Collaborative Education Project of Chinese Ministry of Education [grant number 201902016038], and the Fundamental Research Funds for the Central Universities of Zhejiang University.

#### References

- Abidin, C., Lee, J., Barbetta, T., & Miao, W. S. (2020). Influencers and COVID-19: Reviewing key issues in press coverage across Australia, China, Japan, and South Korea. Media International Australia. Advanced Publication. https://doi.org/10.1177/1329878X20959838
- Chen, J., Zhang, Y., & Hu, J. (2020). Synergistic effects of instruction and affect factors on high- and low-ability disparities in elementary students' reading literacy. Reading and Writing: An Interdisciplinary Journal. Advance online publication. https://doi.org/10.1007/s11145-020-10070-0
- Chen, M., & Xie, Q. (2020). Hedges in news reports on the COVID-19: Taking People's Daily as an example. *Journal of Hubei University of Economics* (Humanities and Social Sciences), 17(9), 100–103. Retrieved from

https://kns.cnki.net/KXReader/Detail?TIMESTAMP=637438340880156250&DBCODE=CJFD&TABLEN ame=CJFDLAST2020&FileName=HBRW202009027&RESULT=1&SIGN=oZ8sl3rbM927baqx7613TsB3 xrw%3d

- Chen, X., & Hu, J. (2020). ICT-related behavioral factors mediate the relationship between adolescents' ICT interest and their ICT self-efficacy: Evidence from 30 countries. *Computers & Education*, 159, Article 104004. https://doi.org/10.1016/j.compedu.2020.104004
- Chen, X., & Hu, J. (2021). Going global: The successful link of IELTS and Aptis to China's Standards of English language ability (CSE). *International Journal of English Linguistics*, 11(1), 1–9. https://doi.org/10.5539/ijel.v11n1p1
- Chen, X., & Hu, J. (2019). Evolution of U.S. presidential discourse over 230 years: A psycholinguistic perspective. *International Journal of English Linguistics*, 9(4), 28. https://doi.org/10.5539/ijel.v9n4p28
- Chen, X., Yan, Y., & Hu, J. (2019). A corpus-based study of Hillary Clinton's and Donald Trump's linguistic styles. *International Journal of English Linguistics*, 9(3), 13–22. https://doi.org/10.5539/ijel.v9n3p13
- Debnath, R., & Bardhan, R. (2020). India nudges to contain COVID-19 pandemic: A reactive public policy analysis using machine-learning based topic modelling. *Plos One*, *15*(9). Advanced Publication. https://doi.org/10.1371/journal.pone.0238972
- Ding, J., & Liao, Y. (2001). Review on the critical discourse analysis. *Contemporary Linguistics*, *4*, 305–310. https://10.3969/j.issn.1007-8274.2001.04.006
- Essam, B. A., & Abdo, M. S. (2020). How do Arab tweeters perceive the COVID-19 pandemic? *Journal of Psycholinguistic Research*. Advanced Publication. https://doi.org/10.1007/s10936-020-09715-6
- Fairclough, N. (1989). Language and power. New York, US: Longman.
- Fairclough, N. (1995). Critical discourse analysis: The critical study of language (Vol. 81). New York, US: Longman.
- Feng, J. (2013). Crisis discourse in Chinese and Western media. *Jianghuai Tribune*, *5*, 140–144. https://doi.org/10.16064/j.cnki.cn34-1003/g0.2013.05.035
- Hu, J. (2014). An analysis of the design process of a language learning management system. *Control and Intelligent Systems*, 42(1), 80-86. https://doi.org/10.2316/Journal.201.2014.1.201-2534
- Jing, Y., Li, B., Chen, N., Li, X., & Hu, J. (2015). The discrimination of learning styles by bayes-based statistics: An extended study on ILS system. *Control and Intelligent Systems*, 43(2), 68–75. https://doi.org/10.2316/Journal.201.2015.2.201-2666
- Joharry, S. A., & Turiman, S. (2020). Examining Malaysian public letters to editor on COVID-19 pandemic: A corpus-assisted discourse analysis. *Gema Online Journal of Language Studies*, 20(3), 242–260. https://doi.org/10.17576/gema-2020-2003-14
- Li, F. (2017). Critical discourse analysis of Sino-US climate change news report: A corpus-based analysis. *Journal of News Research*, 8(12), 59–61. https://CNKI:SUN:XWDK.0.2017-12-035

- Odlum, M., Cho, H., Broadwell, P., Davis, N., Patrao, M., Schauer, D., ... Yoon, S. (2020). Application of topic modeling to tweets as the foundation for health disparity research for COVID-19. *Studies in Health Technology and Informatics*, 272, 24–27. https://doi.org/10.3233/SHTI200484
- Prieto-Ramos, F., Pei, J., & Cheng, L. (2020). Institutional and news media denominations of COVID-19 and its causative virus: Between naming policies and naming politics. *Discourse & Communication*, 14(6), 635–652. https://doi.org/10.1177/1750481320938467
- Thu, T. P. B., Ngoc, P. N. H., Hai, N. M., & Tuan, L. A. (2020). Effect of the social distancing measures on the spread of COVID-19 in 10 highly infected countries. *Science of the Total Environment*, 742. Advanced Publication. https://doi.org/10.1016/j.scitotenv.2020.140430
- Wei, Y., Yang, Q., Chen, J., & Hu, J. (2018). The exploration of a machine learning approach for the assessment of learning styles changes. *Mechatronic Systems and Control*, 46(3), 121–126. https://doi.org/10.2316/Journal.201.2018.3.201-2979
- Xiao, Y., Li, Y., & Hu, J. (2019). Construction of the Belt and Road Initiative in Chinese and American media: A critical discourse analysis based on self-built corpora. *International Journal of English Linguistics*, 9(3), 68–77. https://doi.org/10.5539/ijel.v9n3p68
- Xiao, Y., Liu, Y., & Hu, J. (2019). Regression analysis of ICT impact factors on early adolescents' reading proficiency in five high-performing countries. *Frontiers in Psychology*, 10, Article 1646. https://doi.org/10.3389/fpsyg.2019.01646
- Yang, C. W., Sha, D. X., Liu, Q., Li, Y., Lan, H., Guan, W. W., ... Ding, A. (2020). Taking the pulse of COVID-19: A spatiotemporal perspective. *International Journal of Digital Earth*, 13(10), 1186–1211. https://doi.org/10.1080/17538947.2020.1809723
- Yang, Y. F., & Chen, X. C. (2020). Globalism or nationalism? The paradox of Chinese official discourse in the context of the COVID-19 outbreak. *Journal of Chinese Political Science*, Advanced Publication. https://doi.org/10.1007/s11366-020-09697-1
- Zeng, Y., & Xie, T. (2020). Comparative study on news reports of COVID-19 between China and the United States. *Journal of Mudanjiang University*, 29(09), 77–80. https://doi.org/10.15907/j.cnki.23-1450.2020.09.017

## Copyrights

Copyright for this article is retained by the author, with first publication rights granted to the journal.

This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (http://creativecommons.org/licenses/by/4.0/).