Government-Led or Public-Led? Chinese Policy Agenda Setting during the COVID-19 Pandemic

Yixin Dai, Yuejiang Li, Chao-Yo Cheng, Hong Zhao & Tianguang Meng

Published online: 21 Apr 2021.

Submit your article to this journal ⬀

Article views: 3942

View related articles ⬀

View Crossmark data ⬀

Citing articles: 16 View citing articles ⬀

Routledge
Taylor & Francis Group

Check for updates

Government-Led or Public-Led? Chinese Policy Agenda Setting during the COVID-19 Pandemic

YIXIN DAI*, YUEJIANG LI**, CHAO-YO CHENG ®[†], HONG ZHAO**, & TIANGUANG MENG[†]

*School of Public Policy and Management, Tsinghua University, Beijing, China, **Department of Automation, Tsinghua University, Beijing, China, [†]Department of Political Science, School of Social Sciences, Tsinghua University, Beijing, China

ABSTRACT *This paper compares government-led agenda and public-led agenda setting during the COVID-19 pandemic in China to investigate whether or not the pandemic enhances the government's role in agenda setting. Within-case comparison, aided by big data analysis and case study, finds an overall public-led pattern of agenda setting in China, and a mixture of government-led and public-led agenda setting during the pandemic. It is also found that Chinese government bodies pay attention to and are responsive to citizens' emotions expressed through social media.*

Keywords: agenda setting; social emotion; government-led agenda; public-led agenda; social media

1. Introduction

Crisis and pandemic situations pose huge challenges to the policy-making process by adding both time constraints and uncertainties to decision making. These challenges start from policy agenda setting, in which participating agencies decide which issues are important enough to be recognized by public officials and enter into the formal policy process with assigned government resources (Kingdon 1984, p. 21; McCombs et al. 2014). This paper

---

Yixin Dai is an Associate Professor in the School of Public Policy and Management at Tsinghua University. Her research focuses on innovation, renewable energy, collaborative governance and public policy theory.
Yuejiang Li is a PhD student in the Department of Automation at Tsinghua University.
Chao-Yo Cheng is a Postdoctoral Fellow in the Department of Political Science at Tsinghua University. His research applies both computational and qualitative methods to address different topics in the political economy of institutions and development.
Hong Zhao is an Associate Professor in the Department of Automation at Tsinghua University.
Tianguang Meng is an Associate Professor in the Department of Political Science at Tsinghua University. His research interests include political institutions, information and cyber politics, state-society relation and computational social science.
Correspondence Address: Chao-Yo Cheng, 155 Mingzhai Hall, Qinghua Yuan, Haidian District, Beijing 100084, China. Email: ccheng615@tsinghua.edu.cn

---

raises discussions about agenda setting in crisis situations, which has been lacking in the main knowledge of policy agenda setting that is primarily focused on non-crisis situations.

During the COVID-19 pandemic, the first response of most governments was to activate the public health emergency management system and follow pre-planned policy agendas. Decisive leadership and government-led agendas guided the coordination and communication process for an effective response (Al Saidi et al. 2020). Centralized decision making dominated government-led agenda setting. The public and other stakeholders were informed, educated, or suppressed in order to support government initiatives (Zarhloule 2020). In most countries, personal protective equipment (PPE) was considered essential; government bodies continued to gather relevant information concerning PPE through existing data channels, and adjusted their policies accordingly.

Yet COVID-19 was so unprecedented that existing crisis planning was often not enough. The pandemic challenges the existing policy-making process and requires more stakeholders to be involved, in addition to already extant, specialized crisis-response agencies (Ansell et al. 2020). Involving new entities brings new salient issues into the agenda-setting process. For example, when New York City was hit by COVID-19 in early March 2020, news about the plight of front-line workers, such as their lack of healthcare, struggles with childcare, or long commute times to work, spread quickly among the public and was reported by the media. The New York City government responded rapidly, setting out policies such as hazard pay and death benefits for front-line workers and their families.[1] In such a public-led policy agenda-setting process, elected politicians and government bodies were responsive to citizens' opinions, meaning that citizens' policy preferences initiated the policy process (Page and Shapiro 1983; Barberá et al. 2019).

While both government-led agendas and public-led agendas have been observed during COVID-19, our discussion goes beyond a comparison of the advantages and disadvantages of the two patterns, focusing on a number of key questions: will the pandemic encourage a more government-led agenda-setting pattern? Will there still be room for public-led agendas? If so, what is the relationship between the two patterns? In other words, will government be responsive to the public in a pandemic situation? If so, why and how?

This paper selects China as the case country because it can broaden the knowledge of agenda setting from a comparative perspective. First, the Chinese case is assumed, a priori, to be most likely to exhibit government-led agenda setting and least likely to exhibit public-led agenda setting. China, with its authoritarian political regime, has a strong tendency towards a centralized policy decision-making pattern, although recent research has found that the Chinese government presents some degree of responsiveness to public opinion (Su and Meng 2016). If we observe a public-led agenda, it would more likely be due to the pandemic situation than to the existing political setting. Second, China was the first country to be severely hit by COVID-19, and its government had no chance to learn from other states about what issues should be included and prioritized in agenda setting. Therefore, there is greater scope for public opinion to show its impact, which may provide useful information for further international comparison.

Methodologically, this paper combines big data analysis of a unique dataset, containing nearly 400 million Chinese Weibo posts, with detailed case analysis to shed light on existing studies which largely focus on a single case or small-*N* qualitative analysis.

The rest of the paper is organized as follows. Section 2 reviews the current literature on agenda setting and points out gaps in the literature. We then propose a

theoretical model, putting agenda setting in the context of the pandemic and social media. Section 3 introduces our datasets and empirical analysis. Section 4 reports our main findings, and Section 5 concludes the paper and raises potential policy implications as well as pointing out directions for future research.

2. Agenda Setting in the Context of the Pandemic

This section reviews the existing research on public-led and government-led agenda setting, extend it to the crisis situation and Chinese context, then adds discussion of social emotion to the framework.

2.1 Challenges in Agenda Setting under Crisis Situations

The global outbreak of COVID-19 is an unusual and challenging situation that continues to generate massive social impacts, with little hope of instant solutions. Compared to "regular" politics, agenda setting during a pandemic poses two unprecedented challenges to the existing literature. First, COVID-19 challenges the traditional agenda-setting model by empowering both the government and the public, from different perspectives. While few members of the general public pay close attention to politics under normal circumstances (Hibbing and Theiss-Morse 2002), during a pandemic the public has deep concerns about relevant issues and fast-changing situations, expects more from the government, and demands the government's immediate attention (Russell Neuman et al. 2014). With the help of social media, the public can access information quickly, sometimes faster than government employees. The government, on the other hand, only prepared for routine crises such as earthquakes and fires, lacks experience and solutions when facing a novel crisis such as COVID-19. A state of national emergency, however, gives the government extra authoritative power to set strict regulations and implement unpopular solutions, redistribute social resources, and decide priority among different policy issues. A new level of power balance between the government and the public must therefore be reached during a pandemic situation.

Second, during the COVID-19 pandemic, social emotions, along with policy issues, appear to be important in the agenda-setting process – particularly negative ones such as anxieties, fears, or moral panics that emerge quickly in society and are often amplified by social media (Peters et al. 2004; McComas 2006). Strong emotions cause people to make judgments relying more on affects than on information and knowledge-based rationalities (Slovic et al. 2004; Russell Neuman et al. 2014). Emotions, thus, can determine the salience of public issues, affect public preference towards policy solutions, and increase political support. Government, in this regard, needs to carefully handle how it responds to social emotions, because the public's trust in public agencies also affects their level of political support towards a policy agenda.

2.2 Government-Led vs. Public-Led Agenda Setting during COVID

Research on government-led agenda setting regards the government as the proper stakeholder leading the issue selection. The professionalism of the government sector in existing policy areas puts it in a good position to engage in agenda setting, both in terms of issue identification and in finding policy solutions (Kingdon 1984). The public, as compared to the government sector, is believed to have limited cognitive capacity in identifying issue salience, and to have

difficulties in acquiring relevant policy knowledge so that it is hard for them to evaluate and understand political and policy issues rationally (Kingdon 1984; Hibbing and Theiss-Morse 2002). In crisis situations, government can facilitate agenda setting more easily because it is less likely to need to negotiate with bureaucracies over jurisdictional powers or struggle to disentangle overlapping institutions. As Gómez and Kucheryavenko (2020) found, government's autonomy in health policy agenda setting actually increased when Russia was dealing with the HIV/AIDS epidemic, where no significant congruence among the public was formed and no effective policy entrepreneur was present. Government can even influence public opinion indirectly towards certain agendas (Zhang et al. 2001) because the public usually determines issue salience by relying on information shortcuts such as party affiliation, media reports, and political advertisement, many of which are controlled by the government (Campbell et al. 1960; Sniderman 2000).

The Chinese government is believed to fit the government-led agenda model better, and has strong capacity to shape policy agendas. Wang (2008) summarized six types of Chinese agenda-setting models, in five of which the government played a significant leading role. China took advantage of its centralized decision regime during the SARS outbreak (Schwartz 2012), and institutionalized government-led agenda setting as a key element in its emergency management system to fight future pandemics. Measures and policies, such as lockdown, social distancing, and field hospital construction, are regarded as necessary reactions by the whole society and have been included in government-led agendas. Besides this, the advantage of government-led agenda setting also comes from the capacity that the Chinese government has to define the ex-ante set of issues that can be publicly discussed (Jiang 2014). For example, issues that may lead to collective action and threaten social stability are filtered by internet censorship (King et al. 2013, 2014). Therefore, we hypothesize that:

*H1: Changes in **government issue attention** predict the issue attention of the public in China during COVID-19.*

Public-led agenda theory exists as a competing theory, with its theoretical origin stemming from the philosophy of representation in the democratic polity. It argues that government has strong incentives to respond or cater to citizens' needs for political purposes such as re-election (Dahl 1971; Stimson et al. 1995). Government, therefore, would intentionally keep some level of congruence with the public (Powell 2000), and respond to public preference when setting agendas.

In some authoritarian states, the rising power of the public, especially with the help of social media, makes it possible for the government to respond to a public-led agenda (Su and Meng 2016) when these countries either aim to maintain social stability (Chen et al. 2016; Distelhorst and Hou 2017), to form a quasi-democratic institution to retain power (Meng et al. 2017), or to absorb bottom-up information for making "good" policies (Jiang et al. 2019). In China, the fast development of information and communication technologies makes the public more visible and influential in the agenda-setting process. With the internet penetration rate reaching 59.6 percent by the end of 2018, China has 829 million netizens; 675 million people rely on websites to access daily news (CNNIC 2019), and 462 million people actively express themselves on Sina Weibo (a Chinese social media service similar to Twitter) on a daily basis (SINA 2019). Chinese netizens

are more politically opinionated as opposed to traditional media users and non-media users, and use various discursive strategies to urge government to be responsive (Lei 2011).

The development of social media has particularly weakened the centralized government-led agenda pattern that the Chinese government has institutionalized since SARS. During COVID-19, detailed pandemic information such as personal protective equipment shortages, the vulnerability of specific demographic groups, and psychological obstacles in online teaching were first reported and made prominent by the public before they attracted government attention and became part of the formal policy agenda. Responding to public opinion promptly has become a new challenge to governments in pandemic situations. Governments can set up new agendas, provide solutions to problems, and ensure accountability to eliminate public concerns as a response to public agendas.

Therefore, we hypothesize that:

*H2a: Changes in the **general public's issue attention** predict the issue attention of the government sector in China during COVID-19.*

*H2b: Changes in the **attentive public's issue attention** predict the issue attention of the government sector in China during COVID-19.*

In addition, a crisis situation empowers the general public by raising the importance of social emotions in the agenda-setting process. In a pandemic situation, individuals are more likely to generate emotions such as empathy, blame, and worry, rather than to find facts and rational solutions (Liao et al. 2020). When people make decisions (i.e. make a judgment on issue salience), they tend to rely on a rough demarcation of positive and negative feelings they have (Slovic et al. 2004), and set different expectations and attitudes towards an issue based on these different feelings (Sjöberg 2007). Public emotion, therefore, has a direct effect on agenda setting and requires a government response.

Social media provides new opportunities for the government to be emotionally responsive. On these flexible interactive platforms, many official social media accounts are humanized – having a nickname, emojis, photos, or gender identification. Officials are able to avoid using a rigid official tone and frame themselves in new roles as listener, helper, and facilitator and express empathy, concern, and care (Veil et al. 2011). All of these may increase the public's affective feelings, impact their judgment of issue salience, and form a new method of government response.

What has not been covered in the literature is how government can respond to public emotions. The traditional response of providing facts and solutions may not be enough in risk situations when the public expresses strong emotions and requires an immediate response. Government responses should be able to increase credibility, build up public trust, and reduce critical and negative emotions during the crisis (Reynolds 2011). In order to test whether emotional response or issue response is more effective, we hypothesize that:

*H3: Changes in the public's **social emotions** predict the emotional response of the government sector in China during COVID-19.*

H4: Changes in the public's **social emotions** *predict the issue attention of the government sector in China during COVID-19.*

3.   Research Design and Data Collection

3.1   Data Sampling and Collection

This research uses Sina Weibo, a major social media platform in China, as the main data source and takes issues discussed there as the unit of analysis. During COVID-19, more than 200 million active users followed pandemic information on Sina Weibo on a daily basis, and more than 70,000 government accounts posted pandemic-related information.[2] We collected Weibo posts daily from January 20 to March 23, which covered four stages of the COVID-19 pandemic in Mainland China: surge, peak, decline, and control/normalization (Guan et al. 2020), and filtered these posts by COVID-related Weibo keywords (hashtags). Daily data collection reduces the impact of authority censorship on our dataset to some extent by preserving posts which might otherwise be deleted at a later date (King et al. 2014). As for the possibility of self-censorship, we identified all topics related to COVID-19 to make the issue scope sufficiently wide that not all topics are sensitive enough to be self-censored. In this way, we tried to ensure the freedom of information in our database.

Our dataset contains posts created by the public and by government bodies. Since Weibo does not provide any open classification code identifying government accounts, we instead referred to a report released by the Public Opinion Data Center of People.com[3] that listed the 2,313 "best-behaved" government Weibo accounts in different sectors and regions in China as our targeted government accounts. Of the total 1,128,392 governmental posts, we randomly sampled 10 percent, leaving 112,839 posts in the final dataset.

Second, we randomly sampled 1 percent of public posts and got 4,029,438 posts in total. Following Wang (2008), we differentiated posts from the "attentive public", as opposed to the "general public", for further analysis. In the social media context, the attentive public refers to users who are relatively more capable of exposing information and amplifying messages (Wells et al. 2020). Although they only make up a small proportion of the population, the attentive public are more enthusiastic about public issues and involve themselves more actively, and their opinions are often responded to by the government so as to shape the government agenda (Barberá et al. 2019).

Weibo mainly categorizes public accounts based on their number of followers and the number of daily views their posts receive. We included both OrangeV and GoldenV users as attentive users and regarded them as opinion leaders that have a strong emotional relationship with the general public and take a leading role in online opinion formation (Nip and Fu 2016). In the final database, 3,534,077 posts come from the general public, while 495,361 posts are from the attentive public.[4]

3.2   Measurement Design

Agenda Issue Identification and Distribution.. We follow Howlett (1998) in using the frequency of a public issue appearing in the media as a proxy to measure agenda decisions, but replace traditional media data with social media data, which could reflect public opinion and its evolution over time.

First, we analyzed government posts to identify topics of political salience (Barberá et al. 2019). Since Weibo posts are typical short texts (140 Chinese characters or fewer), we employed the most popular unsupervised learning method – the Latent Dirichlet Allocation (LDA) model – to extract the most popular topics from a massive collection of posts (Blei et al. 2003; Jiang et al. 2019). We trained an LDA model to infer the first 200 most frequently occurring issue topics from the government posts, then manually selected, merged, and labeled them into 37 topics of a political nature (as shown in Table 1). Then, we applied estimated parameters to the whole dataset to calculate the posterior topic distribution for the general public and the attentive public.

Social Emotion Identification and Distribution.. We adopted the SKEP model (Tian et al. 2020) for sentiment analysis. SKEP is a deep learning model, pre-trained with a corpus that contains over 3.2 million documents and yields state-of-the-art performance on several sentiment analysis benchmarks (especially the Chinese corpus). The original SKEP model only provides binary sentiment classification ("Positive"/"Negative"). To improve the accuracy of sentiment classification, we used "Emotion Analysis in Chinese Weibo Texts", a humanly labeled dataset provided by the Technical Committee of Chinese Information, China Computer Federation (CCF TCCI).[5] Each Weibo blog post was labeled with one of eight affects ("Anger", "Disgust", "Fear", "Happiness", "Like", "Sadness", "Surprise", and "None"). We further merged these labels using the following rules: "Positive" emotional response is represented by those posts originally labeled "Happiness", "Like", and

Table 1. Issue topics adopted by government posts

Topic #	Label	Topic #	Label
1	Medical supplies (assistance to other countries)	20	Disease control and protection at community level
2	Medical supplies (donation)	21	Wildlife
3	Medical supplies	22	Pandemic updates
4	Medical wastes	23	Border control
5	Economic reopening	24	Pandemic updates in other countries
6	Students and school education	25	Pandemic updates in Hubei province
7	Duties of party members	26	Cheering and supporting
8	Monitoring and accountability	27	China's achievements fighting against COVID-19
9	Public transportation	28	"We are in this together"
10	Highways	29	Subsidies and relief
11	Parks and tourist spots	30	Rumors and refutation
12	Groceries supply	31	Psychological counseling
13	Passing of front-line healthcare workers	32	Information releases
14	Medical assistance to Wuhan	33	Emergency planning
15	Tributes to female front-line healthcare workers	34	Government services
16	Hospital and treatment facilities	35	Volunteers
17	Treatments	36	Tributes to public workers
18	Disease control and prevention	37	Tributes to front-line healthcare workers
19	Personal protective equipment (PPE)		

Table 2. Social emotion scores in percentages

Emotion score (%)	General public	Attentive public	Government
Negative	10.5	11.5	1.1
Neutral	54.5	63.1	89.3
Positive	35.0	25.4	9.6

"Surprise"; "Neutral" response contains posts originally labeled "None"; and "Negative" contains the original labels of "Anger", "Disgust", "Fear", and "Sadness".

The fine-tuned model could recall those neutral blog posts. We fed the fine-tuned SKEP model with the text content of each Weibo post, and the output of SKEP gives the emotional polarity of the corresponding post ("1" for positive, "0" for neutral, and "–1" for negative).

Table 2 presents the overall sentimental distribution among the three groups. The general public and the attentive public post more emotional expressions than government accounts (that generally favor a neutral tone); the public are around 10 times more likely to express negative emotions in their posts, and 3.6 times (2.6 times for the attentive public) to express positive emotions.

4. Findings and Discussions

We found that the agenda issues discussed during COVID-19 present an overall public-led pattern. Besides that, the public's emotions and the government's emotional response to them played a central role during the pandemic.

4.1 *Overall Agenda Issues: The Public Leads, and Government Follows*

During the COVID-19 pandemic, Chinese citizens had significant ability to influence the attentive public's agenda and thereby the government's agenda, while the attentive public themselves also influenced government agenda directly. While *H2a* and *H2b* are supported, no reverse influence (from government to the two public groups) was observed. We obtained these results in three steps.

First, we tested the congruence level between the issue distributions in the public and the government accounts over the 37 selected topics using Pearson correlation. As shown in Table 3, all three groups are highly correlated, indicating similar and non-conflicting issue attentions among them. The correlation between the attentive public and the general public is the highest (0.875), indicating that they have highly similar interests.

Table 3. Correlation in issue attention among user groups

	Government	Attentive public	General public
Government	1.000	0.780***	0.659***
Attentive public	0.780***	1.000	0.875***
General public	0.659***	0.875***	1.000

*** $p < 0.001$.

We further listed average issue attentions for each group in Figure 1, sorted in descending order by government attention. This figure shows the degree of attention of each user group to the 37 different issue topics, measured by the average

Figure 1. Average daily issue attention by user groups

percentage of attention per day.[6] There are observable similarities as well as differences among the issue attentions between the three groups. Topics that attract unanimous high attention include "pandemic updates in Hubei province", "wildlife animal", and "COVID-19 treatment". There are other issues that attract only partial attention; "tributes to public workers" and "emergency planning", for example, receive more attention from the government accounts than from the public groups, while "tributes to front-line healthcare workers" and "personal protective equipment" are discussed more by the public. This confirms the assertion of Yagade and Dozier (1990) that the public is more sensitive to concrete issues, while the government gives more attention to abstract ones.

Lastly, we try to answer the question of who leads in the agenda-setting process. Each day, a certain percentage of attention is given to every topic issue by each group. This distribution of attention over time is usually skewed to the right (i.e. reaches a peak quickly and decreases as time goes on) and has long-lasting impacts over future issue attention. We set the first 10 percent of the attention increase to an issue by one group as the threshold of the attention increase, and calculated how the attention increase to all topics by each user group within the past seven days cumulatively affected the increase in a certain attention by one group. A vector autoregression (VAR) model was adopted to estimate these seven-day cumulative impulse response functions (IRFs). The regression results can explain to what extent other groups' attention changes would cause attention changes in one particular group (Barberá et al. 2019).

The bars in Figure 2 present the 95 percent confidence interval values of the seven-day cumulative influence of the row group on the column group. For example, in the government column, both the attentive public and the general public show a cumulative IRF larger than 0 to the government's increase in attention, implying that both the attentive public and the general public influence government agenda issues. Similarly, the general public also has a significant influence on the attentive public's issue attention.

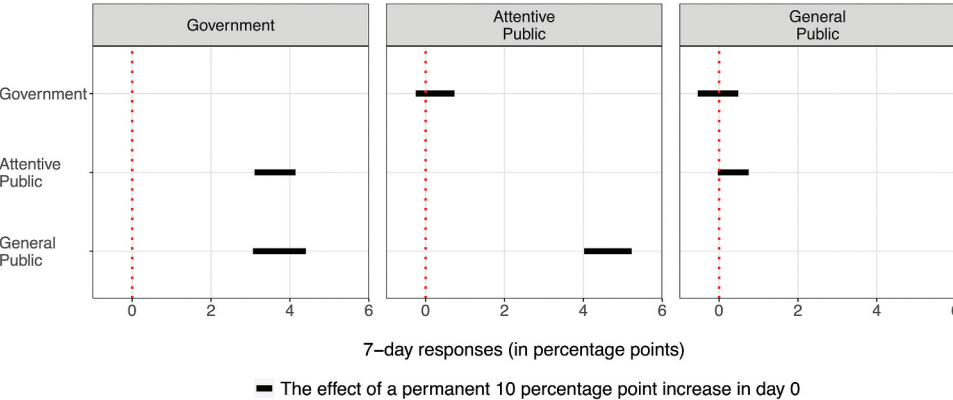**Figure 2.** Seven-day cumulative IRFs: predicted issue responsiveness across groups

Table 4. Correlation between government sentiment, government issue attention, and public attention over selected topics

Issue topic	Sentiment response		Attention response	
	Govt. and general public	Govt. and attentive public	Govt. att'n and general public sentiment	Govt. att'n and attentive public sentiment
Grocery supply	0.201**	0.099	0.0091	0.142
Medical supplies (donation)	0.166**	0.084	0.142	0.112
Wildlife	0.251**	−0.328*	−0.121	0.002
Border control	0.240**	0.000	−0.468***	−0.532**
Psychological counseling	0.152*	0.002	0.101	0.021
Tributes to front-line healthcare workers	0.641***	0.492**	0.082	−0.213
Public transportation	0.503	0.375*	0.190	0.352**

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.0$.

4.2 Emotional Response as a New Method of Responsiveness during COVID-19

We also found strong support for *H3* – that there is a significant emotional bond between the Chinese government and the public during the pandemic. As shown in Table 4, government sentiments significantly correlate with the general public's sentiments on selected issue topics. A smaller number of correlated issues exist between the government and the attentive public. The Chinese government, surprisingly, responds to the public's emotional changes. This may be due to the consideration that an appropriate government response would increase the public's positive emotions in the later stages of a disaster (Bec and Becken 2019). To further reveal how government responded to public emotions, we list the correlation between public sentiments and government issue attentions on the right-hand side of Table 4, which shows few significant correlations. *H4* could not be supported in this regard.

4.3 Three Cases to Illustrate a Detailed Agenda-Leading Process

We have verified that the Chinese government responds to the public both on their issue attentions and emotional expressions during the COVID-19 crisis. However, quantitative analysis is unable to reveal the details of the response process. We pick three cases to explore: how did government push government-led agendas on social media? How did they respond to public-led agendas? And how did they ignore some public opinions under certain circumstances?

Case 1: Government-Led Agenda.. In crisis situations, governments set up series of actions following the existing agenda laid down in emergency planning protocols, such as providing medical supplies and enforcing regional lockdowns whenever the pandemic

situation meets certain criteria. There is no need for agenda discussion either online or offline, although governments generally hope to use social media as an effective tool for policy communication. The agenda of building field hospitals was initiated around mid-January, based on previous experience from fighting the SARS pandemic. Wuhan, the front-line city fighting the most severe COVID-19 outbreak, adopted the policy on January 23. As shown in Figure 3, a large number of government posts appeared that day, explaining the reasons for the policy and detailed implementation steps. The public responded by reposting in low numbers with neutral emotions (as shown in Figure 4) before February 2. The public discussion number peaked with a high percentage of positive emotions when the news came out that a new hospital had been constructed within 10 days.

This case represents most government-led agendas in crisis situations. Governments use social media as a publicity platform; the general public, on the other hand, mainly express personal positive/negative feelings without the intention of raising a new agenda.

Case 2: Public-Emotion-Led Agenda.. When the public noticed salient issues during the crisis, and/or tried to solve emerging problems, they raised a public-led agenda. After the initial outbreak of COVID-19, donations were rushed to the Wuhan Red Cross from all over the country. As required by information disclosure rules, the Red Cross published its total donations and their allocation on Weibo. On January 29, netizens found that while the Red Cross had received over 390 million RMB in donations, only 54 million RMB

Figure 3. Government issue attention and emotion on Huoshenshan hospital building
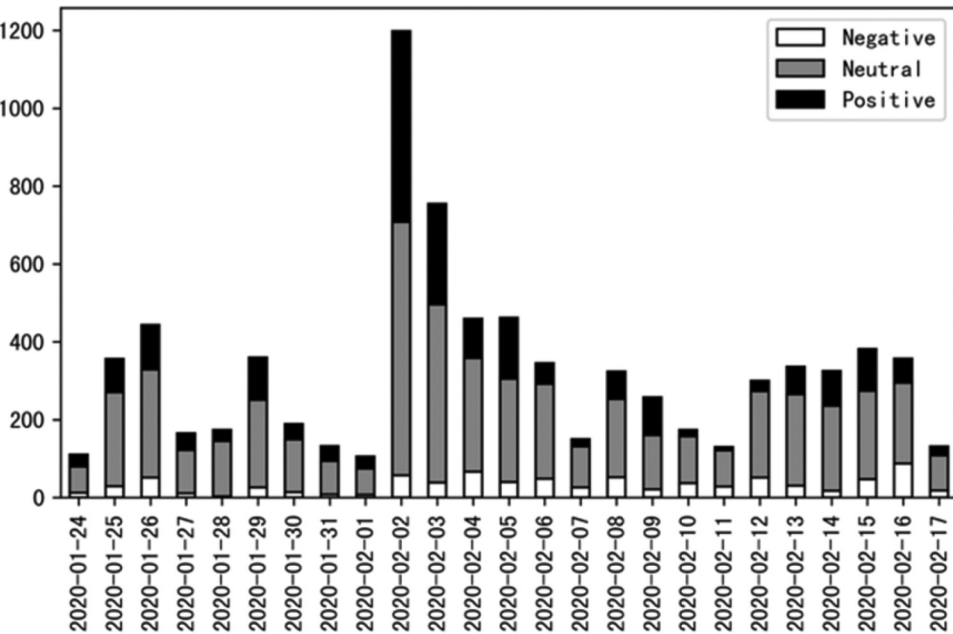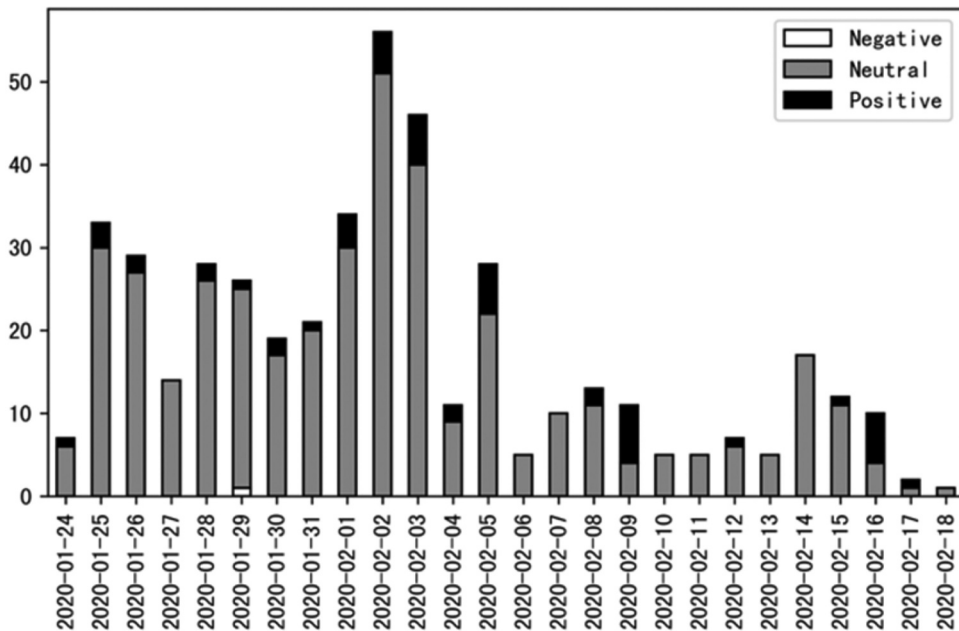
Figure 4. Public issue attention and emotion on Huoshenshan hospital building

had actually been allocated, and the majority of this was not allocated to hospitals for ventilator and mask purchasing, but rather to crisis management bureaus. On February 1, people found that donated masks were not distributed to hospitals in time but were instead taken by public sector workers for personal protection.

Public opinion on social media quickly became inflamed (shown in Figure 5), although clear agendas (such as investigations into corruption) were not proposed. The Wuhan municipal government and the Red Cross responded immediately (shown in Figure 6), mainly by claiming that the listing and allocation of donations might be severely delayed due to the complexity of the process, and trying to minimize the issue. The central government sent an investigation team to Wuhan on February 2 and held municipal government officials accountable for their negligent actions on February 4 (shown as the small peak in Figure 6). This case represents a public-led issue driven by negative emotions that pushed an agenda demanding investigation and accountability. Government actors responded to public emotion mainly by acknowledging and supporting the issue and providing a solution.

Case 3: Public-Led Agenda with Unclear Issues/Solutions.. This case represents a public-led agenda with strong emotions but no clear issues. On January 23, the Wuhan government announced a strict lockdown policy. This was a government-led agenda, representing a pandemic response that had never been adopted before by the city. As shown in Figure 7, government accounts posted large quantities of information on Weibo

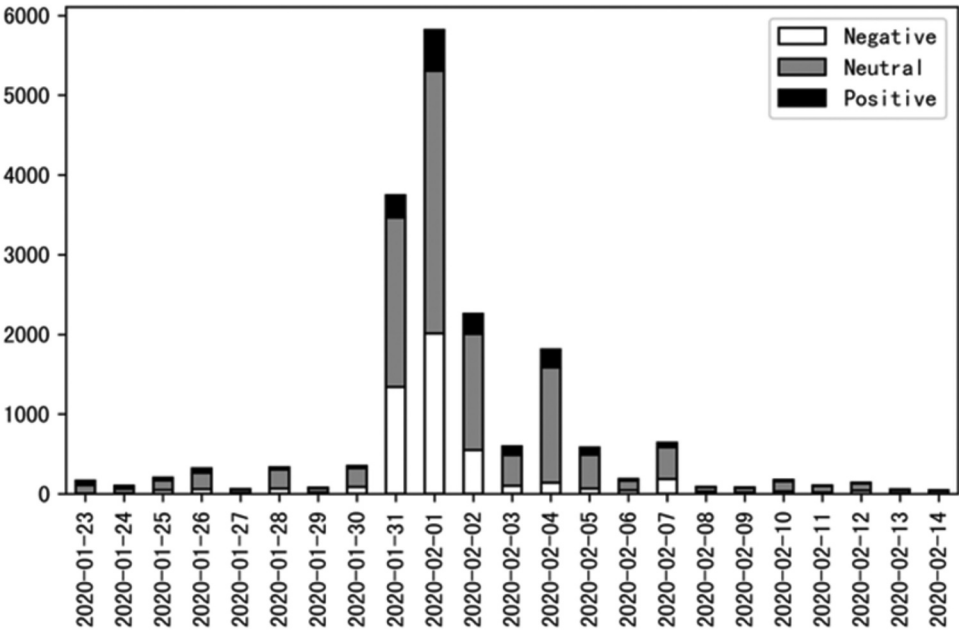**Figure 5.** Public issue attention and emotion on Red Cross corruption

Figure 6. Government issue attention and emotion on Red Cross corruption
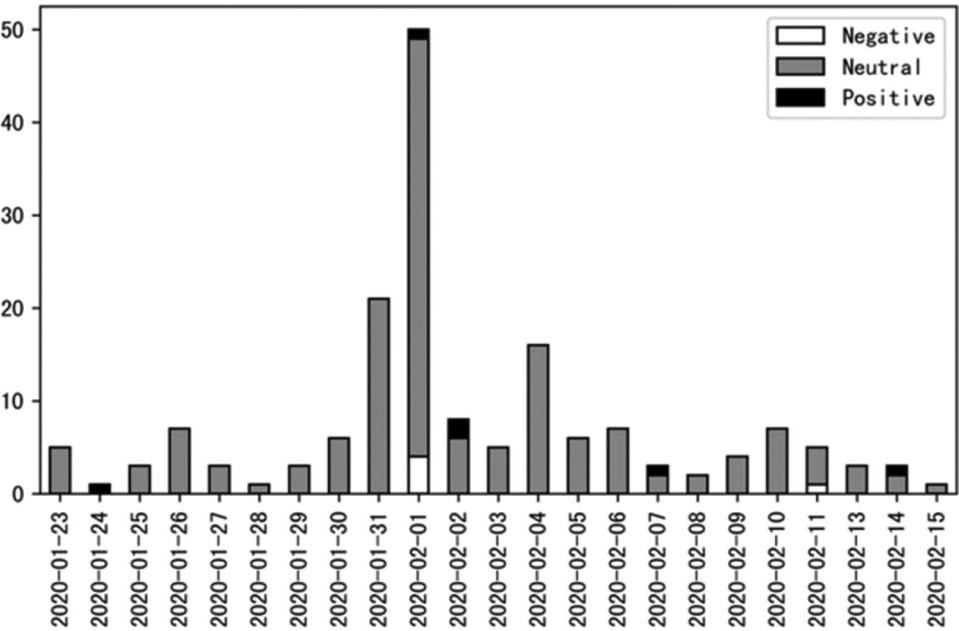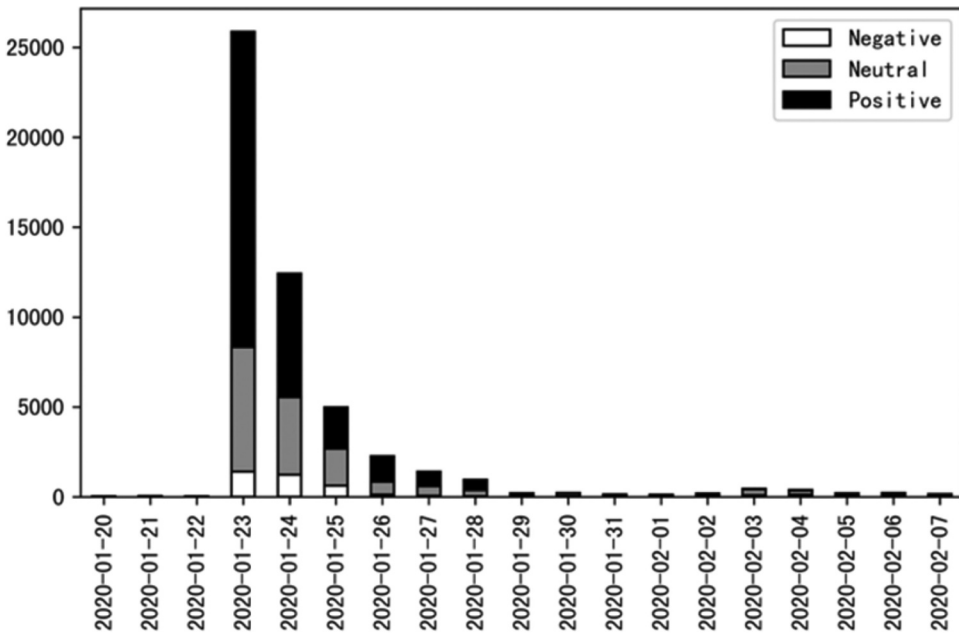
Figure 7. Government issue attention and emotion on lockdown policy

to explain the detailed requirements. Wuhan banned the use of all private cars, public transportation, trains, and airplanes, but assigned 6,000 taxis for urgent transportation usage.

Unexpected issues appeared immediately (shown in Figure 8). The public continued to report various issues on Weibo with quite neutral emotions until early February, such as front-line workers being unable to drive to work, the unavailability of food/grocery delivery services to residents in lockdown, insufficient taxis to take patients to the hospital, construction workers on field hospital projects being unable to leave the city to return to their hometowns due to the travel ban, among others. Unlike the public-emotion-led agendas, the Wuhan government did not reply promptly to these issues on Weibo, nor did it solve all issues right away due to its limited capacity of providing all solutions to these issues. The city arranged additional taxi services for front-line workers, but did not provide a solution for the construction workers' travel ban until the pandemic situation eased. With many such issues crowding together, some of which have no feasible solutions, a public-led agenda may lose its leading position when realistic solutions are not available to make Kingdon's multiple streams converge to an agenda window.

5.   Conclusions and Implications

Policy agenda studies have long focused on who would lead the agenda process based on observations of democratic polities, which naturally assumes a government-led

Figure 8. Public issue attention and emotion on lockdown policy
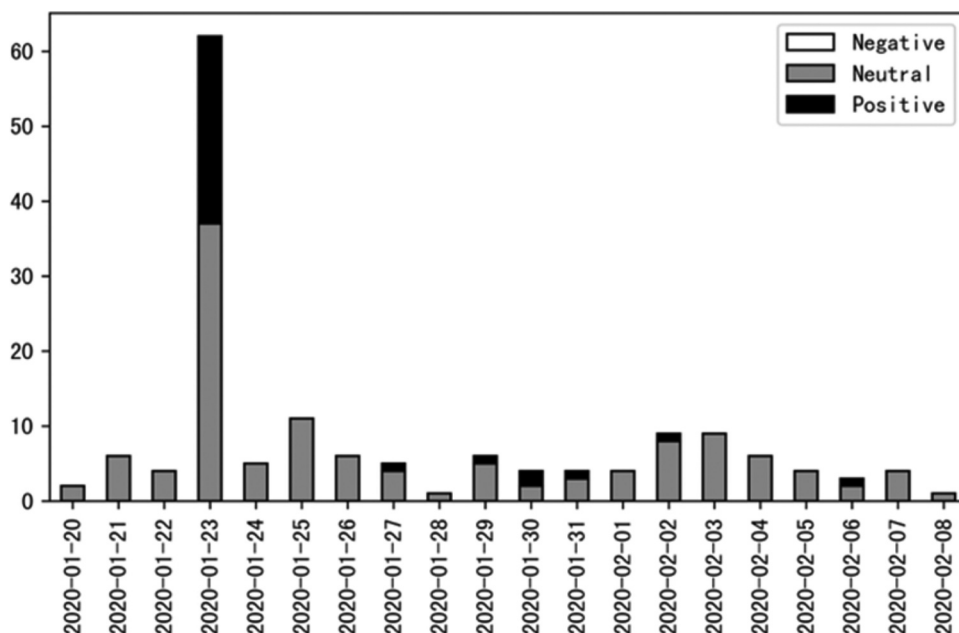
agenda pattern in authoritarian states. This paper contributes by putting the discussion into a pandemic context and finds an overall public-led agenda process, with government responding to both issues and emotions among the public in China. Our findings extend the work of Trein (2020), suggesting that we cannot arbitrarily equate "government-led agenda setting" with "authoritarianism" or the diminishment of liberal democracy, especially under crisis. Public expressions and government responses to them present their significance, even in an authoritarian state like China. In this sense, the mixture of government-led and public-led agenda setting exists in most countries, which makes the conclusions of this paper meaningful to broader international audiences.

This paper presents the different roles the public and the government play in agenda setting with respect to crisis management theory. The general public act as more than simple information providers to government in a pandemic; they effectively push agenda setting as a supplementary process to crisis planning by raising salient issues that government fails to identify due to lack of information and experience. The government, therefore, is more likely to respond to the public to get timely feedback on crisis policies for the purpose of learning and improvement. As well as this, public emotion also serves as a strong political signal that influences not only agenda setting but also social stability and policy compliance.

Yet government responsiveness is conditional. The case indicates selective responsiveness on issues with clear problems and feasible solutions, which partially verifies Su and Meng's (2016) observation that issues gathering intense public attention (e.g. a huge number of comments), or presenting a clear and singular topic, are more likely to be responded to by the Chinese government. This paper also finds a close relationship between public emotions and government emotional responses during crisis. This is of further comparable value that the crisis communication literature explores what positive emotions and defensive responses can produce meaningful output (Jin et al. 2007). What is not clear is: does government select particular emotions to respond to over others? If so, what type of public emotions are more likely to be responded to? Will this emotion selection and response system be institutionalized after the crisis?

The policy implications and avenues for future research are twofold and interrelated. First, government should treat public opinion seriously during crises and learn how to use it wisely. We can see from the Chinese experience that traditional "tricks", such as agenda removal through censorship and deliberate framing of an issue, may provoke the ire of the public (especially in a crisis situation) and should be avoided. However, how to efficiently collect the relevant information from social media platforms, which level of government should pass judgment on issue salience, and how to respond properly to public agendas are among the challenges that need to be investigated through further theoretical and empirical studies.

Second, while government responsiveness to social emotion is an observed phenomenon during COVID-19 in China, its generalization needs to be explored further. In crisis communication, government can try to temper the strong negative emotions engendered by some crisis situations, and/or to display necessary feelings to the public to avoid the appearance of being "coldly rational". However, how to identify emotions accurately, what type of emotions require response, and what might be the proper response strategies, are all questions that await future research.

Notes

1. Source of media report: https://www.democratandchronicle.com/story/news/politics/albany/2020/05/01/ny-provide-free-mental-health-services-front-line-workers/3065176001/; https://www.governor.ny.gov/news/governor-cuomo-signs-law-new-measure-providing-death-benefits-families-frontline-government/
2. https://finance.sina.com.cn/stock/usstock/c/2020-05-19/doc-iircuyvi3963989.shtml (in Chinese).
3. http://yuqing.people.com.cn/NMediaFile/2020/0117/MAIN202001171722000261251830504.pdf (in Chinese).
4. Due to the user information protection policy, user identification is encrypted, and therefore we could not report the descriptors regarding user features (such as number of users and their geographic location).
5. The dataset used to fine-tune the model is available at http://tcci.ccf.org.cn/conference/2014/pages/page04_sam.html. For more information about the dataset, please see http://tcci.ccf.org.cn/conference/2014/dldoc/evatask2.pdf.
6. We followed Barberá et al. (2019), measuring the daily posterior LDA topic probabilities and expressing them in percentages.

Funding

References

Al Saidi, A., Nur, F., Al-Mandhari, A., El Rabbat, M., Hafeez, A., and Abubakar, A., 2020, Decisive leadership is a necessity in the COVID-19 response. *The Lancet*, **396** (10247), 295–298. doi: 10.1016/S0140-6736(20)31493-8

Ansell, C., Sørensen, E., and Torfing, J., 2020, The COVID-19 pandemic as a game changer for public administration and leadership? The need for robust governance responses to turbulent problems. *Public Management Review*, 1–12. doi: 10.1080/14719037.2020.1820272

Barberá, P., Casas, A., Nagler, J., Egan, P. J., Bonneau, R., Jost, J. T., and Tucker, J. A., 2019, Who leads? Who follows? Measuring issue attention and agenda setting by legislators and the mass public using social media data. *American Political Science Review*, **113**(4), 883–901. doi: 10.1017/S0003055419000352

Bec, A. and Becken, S., 2019, Risk perceptions and emotional stability in response to cyclone Debbie: An analysis of Twitter data. *Journal of Risk Research*, 1–19. doi: 10.1080/13669877.2019.1673798

Blei, D. M., Ng, A. Y., and Jordan, M. I., 2003, Latent dirichlet allocation. *Journal of Machine Learning Research*, **3**(Jan), 993–1022.

Campbell, A., Converse, P. E., Miller, W. E., and Stokes, D. E., 1960, *The American Voter*, NY, John Wiley and Sons.

Chen, J., Pan, J., and Xu, Y., 2016, Sources of authoritarian responsiveness: A field experiment in China. *American Journal of Political Science*, **60**(2), 383–400. doi: 10.1111/ajps.12207

CNNIC. 2019. The 44th China statistical report on internet development (in Chinese). http://www.cac.gov.cn/pdf/20190829/44.pdf. Last retrieved on July 27th, 2020.

Dahl, R., 1971, *Polyarchy: Participation and Opposition*, (New Haven: Yale University Press).

Distelhorst, G. and Hou, Y., 2017, Constituency service under nondemocratic rule: Evidence from China. *The Journal of Politics*, **79**(3), 1024–1040. doi:10.1086/690948

Gómez, E. J. and Kucheryavenko, O., 2020, Explaining Russia's struggle to eradicate HIV/AIDS: institutions, agenda setting and the limits to multiple-streams processes. *Journal of Comparative Policy Analysis: Research and Practice*, 1–17. doi: 10.1080/13876988.2020.1724053

Guan, L., Roberts, M., Xu, Y., and Zhao, J., 2020. Pandemic sees increase in Chinese support for regime, decrease in views towards the U.S. http://chinadatalab.ucsd.edu/viz-blog/pandemic-sees-increase-in-chinese-support-for-regime-decrease-in-views-towards-us/(last retrieved on July. 27th, 2020)

Hibbing, J. R. and Theiss-Morse, E., 2002, *Stealth Democracy: Americans' Beliefs about How Government Should Work*, (Cambridge: Cambridge University Press).

Howlett, M., 1998, Predictable and unpredictable policy windows: Institutional and exogenous correlates of Canadian federal agenda-setting. *Canadian Journal of Political Science/Revue Canadienne De Science Politique*, **31**, 495–524. doi: 10.1017/S0008423900009100

Jiang, J., Meng, T., and Zhang, Q., 2019, From internet to social safety net: The policy consequences of online participation in China. *Governance*, **32**(3), 531–546. doi: 10.1111/gove.12391

Jiang, Y., 2014, 'Reversed agenda-setting effects' in China case studies of Weibo trending topics and the effects on state-owned media in China. *Journal of International Communication*, **20**(2), 168–183. doi: 10.1080/13216597.2014.908785

Jin, Y., Pang, A., and Cameron, G. T., 2007, Integrated crisis mapping: Toward a publics-based, emotion-driven conceptualization in crisis communication. *Sphera Publica*, **7**, 81–95.

King, G., Pan, J., and Roberts, M. E., 2013, How censorship in China allows government criticism but silences collective expression. *American Political Science Review*, (**107**), 326–343. doi: 10.1017/S0003055413000014

King, G., Pan, J., and Roberts, M. E., 2014, Reverse-engineering censorship in China: Randomized experimentation and participant observation. *Science*, **345**, (6199). doi: 10.1126/science.1251722.

Kingdon, J. W., 1984, *Agendas, Alternatives, and Public Policies*, Boston, Little, Brown.

Lei, Y. W., 2011, The political consequences of the rise of the internet: Political beliefs and practices of Chinese netizens. *Political Communication*, **28**(3), 291–322. doi: 10.1080/10584609.2011.572449

Liao, Q., Yuan, J., Dong, M., Yang, L., Fielding, R., and Lam, W. W. T., 2020, Public engagement and government responsiveness in the communications about COVID-19 during the early epidemic stage in China: Infodemiology study on social media data. *Journal of Medical Internet Research*, **22**(5), e18796. doi: 10.2196/18796

McComas, K. A., 2006, Defining moments in risk communication research: 1996–2005. *Journal of Health Communication*, **11**(1), 75–91. doi: 10.1080/10810730500461091

McCombs, M. E., Shaw, D. L., and Weaver, D. H., 2014, New directions in agenda-setting theory and research. *Mass Communication and Society*, **17**(6), 781–802. doi: 10.1080/15205436.2014.964871

Meng, T., Pan, J., and Yang, P., 2017, Conditional receptivity to citizen participation: Evidence from a survey experiment in China. *Comparative Political Studies*, **50**(4), 399–433. doi: 10.1177/0010414014556212

Nip, J. Y. and Fu, K. W., 2016, Challenging official propoganda-public opinion leaders on Sina Weibo, *China Q.*, 122.

Page, B. and Shapiro, R., 1983, Effects of public opinion on policy, *The American Political Science Review*, **77**(1), 175–190.

Peters, E. M., Burraston, B., and Mertz, C. K., 2004, An emotion-based model of risk perception and stigma susceptibility: Cognitive appraisals of emotion, affective reactivity, worldviews, and risk perceptions in the generation of technological stigma. *Risk Analysis: An International Journal*, **24**(5), 1349–1367. doi: 10.1111/j.0272-4332.2004.00531.x

Powell, G. B., 2000, *Elections as Instruments of Democracy: Majoritarian and Proportional Visions*, (New Haven: Yale University Press).

Reynolds, B. J., 2011, When the facts are just not enough: Credibly communicating about risk is riskier when emotions run high and time is short. *Toxicology and Applied Pharmacology*, (2542), 206–214. doi: 10.1016/j.taap.2010.10.023

Russell Neuman, W., Guggenheim, L., Mo Jang, S., and Bae, S. Y., 2014, The dynamics of public attention: Agenda-setting theory meets big data. *Journal of Communication*, 64(2), 193–214. doi: 10.1111/jcom.12088

Schwartz, J., 2012, Compensating for the 'authoritarian advantage'in crisis response: A comparative case study of sars pandemic responses in China and Taiwan. *Journal of Chinese Political Science*, 173, 313–331. doi: 10.1007/s11366-012-9204-4

SINA. 2019. Weibo user development report (In Chinese). Availabel at https://data.weibo.com/report/reportDetail?id=433. accessed July 27th, 2020.

Sjöberg, L., 2007, Emotions and risk perception. *Risk Management*, **9**(4), 223–237. doi: 10.1057/palgrave.rm.8250038

Slovic, P., Finucane, M. L., Peters, E., and MacGregor, D. G., 2004, Risk as analysis and risk as feelings: Some thoughts about affect, reason, risk, and rationality. *Risk Analysis: An International Journal*, 24(2), 311–322. doi: 10.1111/j.0272-4332.2004.00433.x

Sniderman, P. M., 2000, Taking sides: A fixed choice theory of political reasoning, in Arthur Lupia, Mathew D. McCubbins and Samuel L. Popkin (Eds.), *Elements of Reason: Cognition, Choice, and the Bounds of Rationality*, 67–84 (Cambridge: Cambridge University Press).

Stimson, J., MacKuen, M., and Erikson, R., 1995, Dynamic representation. *American Political Science Review*, **89**, 543–565. doi: 10.2307/2082973

Su, Z. and Meng, T., 2016, Selective responsiveness: Online public demands and government responsiveness in authoritarian China. *Social Science Research*, **59**, 52–67. doi: 10.1016/j.ssresearch.2016.04.017.

Tian, H., Gao, C., Xiao, X., Liu, H., He, B., Wu, H., Wang, H., and Wu, F., 2020. SKEP: Sentiment knowledge enhanced pre-training for sentiment analysis. *arXiv preprint. arXiv:2005.05635*.

Trein, P., 2020. Authoritarian rule and liberal democracy in times of crisis. *Available at SSRN 3625523*.

Veil, S. R., Buehner, T., and Palenchar, M. J., 2011, A work-in-process literature review: Incorporating social media in risk and crisis communication. *Journal of Contingencies and Crisis Management*, **19**(2), 110–122. doi: 10.1111/j.1468-5973.2011.00639.x

Wang, S., 2008, Changing models of China's policy agenda setting. *Modern China*, **34**(1), 56–87. doi: 10.1177/0097700407308169

Wells, C., Zhang, Y., Lukito, J., and Pevehouse, J. C., 2020, Modeling the formation of attentive publics in social media: The case of Donald Trump. *Mass Communication and Society*, **23**(2), 181–205. doi: 10.1080/15205436.2019.1690664

Yagade, A. and Dozier, D. M., 1990, The media agenda-setting effect of concrete versus abstract issues. *Journalism Quarterly*, **67**(1), 3–10. doi: 10.1177/107769909006700102

Zarhloule, Y., 2020, Framing nationalism in times of a pandemic: The case of Morocco, *The COVID-19 Pandemic in the Middle East and North Africa*, 55.(Washington, DC: The Project on Middle East Political Science).

Zhang, G., Li, B., and Li, M., 2001, An analysis of the "agenda setting function" of the Chinese media. *The Journalist Monthly*, **6**, 3–6.