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Media in a Time of Crisis: Newspaper Coverage of Covid-19 in East Asia

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PREPRINT

Media in a Time of Crisis:
Newspaper Coverage of Covid-19 in East Asia

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Abstract: How have newspapers covered Covid-19 in Asia? To answer this question, I studied East Asian English-language newspapers published between January and July 2020. First, I measured the level of news media attention on Covid-19 among all reports. Second, I analyzed the tone and content of 330 editorials. I divided the analysis into two time periods: the initial crisis breakout period, when the number of infections was rising or high, and the crisis abatement period, when new infections declined to manageable levels. Findings show that although newspapers were slow to begin addressing the pandemic, their early editorials carried an alarming tone, which continued even after new infections dropped to low levels. This surprising level of concern continued because the topics shifted from health concerns to more ideological goals. Chinese and Taiwanese editors politicized the pandemic, using it as a wedge issue to attack international adversaries. Meanwhile, Korean editors used the economic fallout of the pandemic to press the government for pro-business economic reforms. In contrast, editors in Hong Kong exhibited cautious neutrality, largely avoiding politicization of the pandemic. These patterns of editorial coverage reveal the partisan nature of the press in East Asia, as well as salient political and economic undercurrents.

Keywords: Covid-19; issue attention; content analysis; East Asia, newspaper editorials; partisan media

Words: 9,950 (Main text, tables, figures, footnotes, and references. Excludes title page.)

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Introduction

The coronavirus disease 2019 (Covid-19) pandemic is the largest health crisis the world has faced in more than a century. Beyond its immediate and devastating health impacts, the pandemic has shattered economies, strained domestic and international political relations, and radically changed how society operates—potentially for years to come. In this time of great uncertainty, news consumption has increased considerably as people search for information on the pandemic and how to protect themselves (Casero-Ripollés, 2020). As such, the news media have played a critical role in how the public understands and reacts to the pandemic—behaviors that in turn can affect the spread of the virus. The news media decide when and how extensively to cover the crisis; express an emotional tone related to the severity of the situation; provide pertinent information on its impact; act as watchdogs scrutinizing government authorities; and recommend courses of action (Choi and McKeever, 2019; Cornia et al., 2016; Evensen and Clarke, 2011; Klemm et al., 2016; Shih et al., 2008).

Previous studies of pandemics have indicated that the news media react quickly to an outbreak, largely due to globalization (Cornia et al., 2016), and primarily set an alarming tone in their coverage (Chang, 2012; You et al., 2017). A number of scholars have studied how news coverage changes over the course of a health crisis (Oh et al., 2012; Shih et al., 2008; You et al., 2017), whereas others have shown how news coverage varies across countries due to differences in news media systems and politics (Cornia et al., 2016; Luther and Zhou, 2005). Although these studies have offered important insights, the health crises studied were relatively limited in terms of their impact and news coverage. In contrast, the Covid-19 pandemic is an all-consuming global health crisis that has dominated news coverage around the world.[1]

This paper analyzes how the news media have covered Covid-19 by examining English-language newspapers located at the regional epicenter of the pandemic—in China, Hong Kong, Taiwan, and South Korea. I will refer to these as regions rather than countries when I include Hong Kong, which is a semi-autonomous jurisdiction governed by China. Taiwan is widely regarded as its own country, having been governed independently of China since 1949. Though China still considers it as part of its territory.

This study covers the first six months of 2020, the initial phase of the pandemic during which new infections increased and declined in each region studied. For the analysis, I divided this phase into two time periods: the crisis breakout period when new infections were increasing or high, and the crisis abatement period when new infections fell to manageable levels. For each period, I analyzed the level of news media attention the pandemic garnered among all reports and how it changed over time. Next, I conducted a content analysis of 330 editorials to understand how editors covered the crisis and how their coverage evolved in each region from the crisis breakout to the abatement period. Editorials are a particularly important part of any newspaper, and scholars have highlighted how they help us interpret the news of the day (Vermeer, 2002). Editorials indicate what editors, who are influential figures in journalism, want to communicate to leaders, policymakers, and the general public. This comparative approach elucidates how patterns of the pandemic itself, as well as differences in news media systems and politics across countries and regions, might affect the extent, tone, and type of news coverage.

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[1] Ducharme (2020) showed that Covid-19 was covered far more extensively than the 2018 Ebola outbreak.

Studying News Media Coverage of Pandemics

To study newspaper coverage of Covid-19, it is useful to analyze the issue-attention cycles, tone, and content of coverage. Downs (1972) was the first to develop the idea of issue-attention cycles, which refer to the amount of attention an issue receives from the mass media or public and how this attention cycles through stages of rising, peaking, and declining. According to the agenda-setting argument, the more media attention an issue gets, the more that issue gains salience and attracts public concern (McCombs and Shaw, 1972).

The tone of news coverage can also affect how the public interprets issues presented by news media outlets. Tone is important because it attaches affective attributes to issues, events, and actors (Sheafer, 2007). A more positive tone may reduce the salience of an issue for the public, whereas a negative tone may increase it (Schoenbach and Semetko, 1992).

Finally, I look at the content of news media reports on the substantive aspects of the pandemic. Other scholars have highlighted the important role news media play in covering the substantive aspects of issues such as elections and health reform (Cappella and Jaimeson, 1997). With regard to a global pandemic, three aspects can be explored. First, how do the news media cover the impact of the pandemic, specifically its health, social, economic, and political consequences? Second, how do the news media attribute responsibility for the spread and control of the virus? Who are the villains and heroes? Finally, what advice do the news media offer on how to respond to the dangers of the pandemic? What actions can, or should, governments, experts, businesses, and ordinary individuals take? How the news media cover these substantive aspects of consequences, responsibility, and recommended actions can help us better understand pandemic news coverage.

Issue Attention

In a study of environmental issues in the media, Downs (1972) described five stages that captured the rise, peak, and fall of issue attention. Since then, the cyclical nature of crisis in the news media and public attention has been noted and examined in numerous studies (Reynolds and Seeger, 2005; McComas and Shanahan, 1999; Nisbet et al., 2003). Globalization is an important factor in determining how much news media attention an issue may receive. Globalization offers faster connectivity due to new communication technologies that enable the rapid dissemination of information. Studies have found an overlap in news coverage across countries on issues such as climate change and pandemics (Cornia et al., 2016, pp. 1037–1038; Grundmann and Scott, 2014). This suggests a concurrent rise in awareness of issues across countries and a confirmation of globalization.

However, although globalization might speed up the spread of information about a pandemic, newspapers still assess the risks and relevance of the pandemic for their audience to determine how extensively to cover the crisis. The Ebola outbreak of 2014 offers evidence that despite globalization, the geographic proximity and proliferation of infections might affect the amount of news coverage. In the initial months of the Ebola pandemic, thousands of infections were reported in West Africa and deaths were rising, but news coverage from U.S. outlets was limited. This changed dramatically after the first U.S. case of Ebola was reported. At that point, U.S. news media reports and searches for information on Ebola surged (Savillo and Gertz, 2014; Towers et al., 2015).

My first research question concerns the speed with which news media outlets in East Asia began to cover the pandemic:

RQ1. How quickly did news coverage of the pandemic spread after being initially reported in China, and was the news media's response associated with the proximity and proliferation of infections in each country or region?

Beyond changes in the amount of news coverage over time, scholars have found that the news media may cover issues differently at different stages of the attention cycle. Evidence of this observation comes from studies on a number of issues, including global warming (McComas and Shanahan, 1999), stem cell research (Nisbet et al., 2003), and pandemics (Beaudoin, 2007; Shih et al., 2008). Studies of Korean newspaper editorials and articles, for instance, found that news media frames and subject matter changed during the course of the MERS crisis and the H1N1 pandemic (Oh et al., 2012; You et al., 2017).

In some of these studies, points of change have been determined by assessing the waxing, maintenance, and waning phases of news coverage, not the actual crisis itself (e.g., Shih et al., 2008). Others have defined stages of an issue in advance and assessed patterns of news coverage across those stages. For example, Nisbet et al. (2003) looked at four stages of scientific, policy, and political development specific to stem cell research.

The Covid-19 pandemic has had its own dramatic stages of development as infections within a country can go through cycles of rising and declining. This offers us an opportunity to study how news coverage might be affected by different stages of a health crisis. The time frame studied is quite short, just six months, and includes the first wave of infections for each country or region. The sharpest contrast in the situation during these six months was between the initial breakout of the crisis and the period when infections had fallen and remained at manageable levels. In this study, I draw on terms from Fink (1986) to describe these two stages: the *crisis breakout* period (with rising or high infection rates) and the *crisis abatement* period (as new infections fell to and largely stayed at manageable levels).[2] I should note, that after this initial abatement period there were new and higher waves of infections in the region.

The Tone of News Coverage

News coverage that sets an alarming tone can convey the dangers of a pandemic. However, it also risks overly dramatizing the crisis, causing public anxiety and panic. In contrast, a more reassuring tone might promote a calmer response but may make the public more complacent and less likely to practice measures to inhibit the pandemic's spread. Journalists often rely on drama to construct stories, dramatizing natural disasters and diseases in particular (Bennett, 2016). Also, in presenting issues they can select words that inspire either fear or reassurance. Studies of epidemics have generally found that the news media set an alarming and negative tone, focusing on dangerous or frightening information such as the spread of the infection, the number of deaths, or detrimental economic impacts.[3] During the Ebola outbreak of 2014, U.S. news media outlets were criticized for their "breathless,

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[2] Fink (1986) described the stages as crisis buildup, breakout, abatement, and termination. In my study I collapse crisis buildup and breakout simply into crisis breakout.

[3] On Avian flu, see Dudo et al. (2007); on MERS, You et al. (2017); on the H1N1 flu, Chang (2012).

alarmist reports" (Savillo and Gertz, 2014).

Given these studies and observations, we might expect news coverage of the pandemic's breakout period to have an initially alarming tone, but it is less clear whether the tone would change once infections declined and the health aspects of the pandemic became more manageable. Past epidemics, along with their news coverage, have tended to end more abruptly than Covid-19, and no studies have looked at the tone of coverage after infections declined but when the health threat remained serious. For this reason, the following research question on tone is articulated:

RQ2. To what extent did news coverage set an alarming tone during the crisis breakout period, and did this pattern change after the initial health crisis abated?

The Content of News Coverage

Studies investigating the content and framing of pandemic news reporting have identified three primary features of the coverage. The first is an emphasis on consequences or impact. News reports of mad cow disease, West Nile virus, the avian flu, and H1N1 were often framed in terms of consequences (Oh et al., 2012; Shih et al., 2008). In these instances consequences have been defined in a broad sense. However, the subcategory of economic consequences has been found to be a particularly common frame in the news (Neuman et al., 1992; Semetko and Valkenburg, 2000).

The impact of pandemics varies. They can affect public health, the healthcare system, social life, and how we work. Pandemics also have economic consequences for employment, businesses, markets, and trade. Finally, there are political consequences for governments, elections, and international relations. Given this variety of consequences, news reports may emphasize some of them more than others. Additionally, the kind of consequence emphasized might change over the course of a pandemic. For example, in the initial stage, health consequences might be most prominent, but as infections decline, the focus may turn to the economic toll wreaked by the pandemic.

A second frequent aspect of news coverage is the attribution of responsibility, or who should be blamed or praised for their behavior during the pandemic (Iyengar, 1991; Semetko and Valkenburg, 2000). A study of Korean reports found that the news media frequently faulted the government for its handling of the avian influenza (Choi and McKeever, 2019), whereas studies of the SARS epidemic in China found that the news media avoided blaming or criticizing the government (Beaudoin, 2007; Luther and Zhou, 2005). Findings on how blame might change over time during a health crisis are limited. Reynolds and Seeger (2005) suggested that blame may increase after a health crisis, as the media assess who should bear responsibility. However, Oh et al. (2012) found that blaming actually declined in the waning phase of the H1NI pandemic in Korea.

In contrast to blame, less attention has been paid to praise, a positive form of responsibility attribution, which can also play an important role in reducing panic and alarm among the public (Kilgo et al., 2019). As such, in this study I expand on the concept of responsibility, exploring how the news media attributes blame and praise, and if there is any change during the course of the pandemic.

The final aspect of news coverage is action, or recommendations or remedies to tackle pandemics. Studies of health crises have used different terms (such as efficacy, solutions, and mobilizing information) to describe actions recommended by the news media to resolve a

particular issue or social problem. Given the serious dangers posed by a health crisis, it is unsurprising that recommended actions are a prominent theme in news coverage. Often, the recommendations are personal, or directed at ordinary individuals. The news media often provide information to help ordinary citizens prevent, diagnose, or heal viral infections during the outbreak of epidemics (Chang, 2012; Dudo et al., 2007; Klemm et al., 2016; Oh et al., 2012). There is tentative evidence that such calls for personal actions may decline in the waning phase of a health crisis (Oh et al., 2012).

Other studies have focused on recommended societal actions—e.g., advice for governments, institutions, experts, or other societal actors (Kilgo et al., 2019; Shih et al., 2008). Studies of pandemics in the U.S. and Korea have found that societal action recommendations are very prominent (Choi and McKeever, 2019; Evensen and Clarke, 2011; You et al., 2017), but whether they might change during the course of a crisis is unclear (Shih et al., 2008). Building on some scholars' consideration of both concepts (Choi and McKeever, 2019; Evensen and Clarke, 2011), this study explores how personal and societal recommendations are conveyed in the news media and whether they change as the pandemic progresses.

Given that news coverage may emphasize these different aspects of the pandemic, the final research questions are articulated:

RQ3. How did news coverage discuss the health, social, economic, or political consequences of the pandemic during the crisis breakout period, and was there any change after the initial health crisis abated?

RQ4. How did news coverage blame or praise actors during the crisis breakout period, and was there any change after the initial health crisis abated?

RQ5. How did news coverage recommend personal or societal actions during the crisis breakout period, and was there any change after the initial health crisis abated?

East Asian News Media

To study news coverage of Covid-19 across East Asia, I gathered data from newspapers in China, Hong Kong, Taiwan, and Korea during the first six months of 2020. Hit early by the pandemic, these countries and regions experienced a rise and decline in infections during these six months, so they should provide insights on patterns of Covid-19 news coverage during the breakout and abatement periods of a health crisis.

It is important to understand the context within which news is produced in these four regions. Specifically, the different levels of freedom experienced by state-controlled as opposed to privately controlled newspapers, as well as broader ideological cleavages in society, may affect news media coverage.

In Korea and Taiwan, democratization in the late 1980s and early 1990s resulted in the deregulation and privatization of the media, resulting in greater competition among newspapers (Fell, 2005; Shim, 2002). Today, in both countries, the news media can report freely on politics and the performance of government officials. However, the news industry does reflect broader cleavages in society. In Korea, newspaper outlets largely lie along a spectrum from conservative, right-wing to liberal, left-wing views (Lee and Paik, 2017). In

Taiwan, newspapers are categorized primarily by their stance on Taiwanese identity, ranging from pro-China to pro-independence (Fell, 2005).

Hong Kong has long had a thriving media industry but press freedom has been declining since the city's handover to China in 1997, falling from 18th place in the World Press Freedom Index in 2002 to 80th place in 2020. The main factors in this change have been Beijing's direct acquisition of media outlets and its pressure on the advertisers that fund Hong Kong's news industry (RWB, 2020). As in Taiwan, Hong Kong newspapers have tended to be either pro-China or pro-democracy.

Of the four regions, press freedom in China is by far the most restrained. China ranks 177th of 180 countries in the World Press Freedom Index for 2020. Newspapers in China lack independence from government bodies and institutions, acting instead as a propaganda tool for the Chinese Communist Party (CCP), which exerts its control though its Department of Propaganda, allowing the CCP to shape narratives for public diplomacy (Hartig, 2017; Wong, 2016). Under President Xi Jinping, control of the newspaper industry has deepened further (Buckley, 2018).

From these four regions, I selected six newspapers for analysis. The criteria for selection were that they needed to be leading English-language national daily newspapers with both online and print editions, wide-ranging coverage of politics and society, and regularly published and accessible editorials. Niche publications or those primarily focusing on business or sports were excluded from consideration.

In Korea, I chose the *Korea Herald* and the *Korea Times*. Established in the early 1950s, they are two of the oldest and most prominent English-language newspapers in Korea, and both are owned by private corporations. In Taiwan, I chose the *Taipei Times*. Founded in 1999, it is the only daily English-language newspaper in the country. It is ideologically supportive of Taiwanese independence, in line with the view of its publisher, the Liberty Times Group (Kuo, 2007), and the ruling Democratic Progressive Party (DPP).

In Hong Kong, I chose the *South China Morning Post* (*SCMP*). Founded in 1903, it has often been regarded as Hong Kong's paper of record, famed for its editorial independence and tough reporting. However, in 2016 the Chinese e-commerce empire Alibaba bought the paper. Since then, critics have argued that the *SCMP* has shifted closer to the position of the Chinese government (Wiebrecht, 2018). *SCMP*, however, continues to tout its independence and credibility, and recent surveys shows that it was ranked as the most credible newspaper in Hong Kong (HKU 2020).

In China, I chose the *China Daily* (established in 1981) and the English-language *Global Times* (launched in 2009). Both are effectively controlled by the CCP's Propaganda Department and are connected to the People's Daily, the CCP's mouthpiece. Additionally, both papers were well known in China and have a growing global presence. The *China Daily* constructs positive images of China as a peace-loving, cooperative, and responsible power (Hartig, 2017). Meanwhile, the *Global Times* has been dubbed the Fox News of China for its hawkish editorials, aggressive attacks, and nationalist slant. According to editor-in-chief Hu Xijin, who frequently writes its editorials, the *Global Times* often reflects what party officials are thinking but cannot say (Huang, 2016).

Methodology

My first task was to measure the overall extent of Covid-19 news coverage. To do so, I

counted the total number of articles (reports and editorials) published on Covid-19 by each newspaper during the period of study. I searched each newspaper in its entirety on the Factiva database for any articles that mentioned "Coronavirus," "Covid-19," or "Wuhan virus" in either the title or the main text. This information enabled me to analyze levels of issue attention and how they changed over time.

To compare news coverage with outbreaks of Covid-19, I gathered data on the number of weekly infections within each region.[4] Using these data, I identified the point at which the number of weekly Covid-19 cases of infections bottomed out.[5] This occurred in China in week 11 of the period studied, and in each of the other countries or regions in week 17. Therefore, for China the abatement period was defined as weeks 11 to 26; for the other regions it was weeks 17 to 26.

To capture the views of news media elites in these papers, I examined their editorials —the means by which editors can express their opinions on the issues they consider important without being constrained by objectivity requirements or daily news cycles (Eilders, 2000, pp. 184–187). Admittedly, the editors of these six newspapers may not be representative of media elites as a whole. However, this set of editorials represents a suitable sample, as these newspapers are read by domestic political, business, and intellectual leaders. In addition, they play an important role in communicating with the outside world by addressing large international readerships. For these reasons, their influence extends to other news organizations, policymakers, and leaders at home and abroad.[6] The views expressed in these English-language newspapers may differ somewhat from those published in the local language, but these news media outlets are not likely to be outliers in view of their connections to other major local newspapers.[7]

I reviewed all editorials in each newspaper online and gathered those that discussed the Covid-19 pandemic from January 1 to June 30.[8] The total number of editorials gathered ranged from 57 for the *Korea Herald* to 163 for the *SCMP*. Fifty-five editorials were then selected for coding from each newspaper, using a systematic sampling method. Next, I developed a codebook to code the tone and content of editorials. Every editorial was coded

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[4] Data was downloaded from the *European Centre for Disease Prevention and Control* and Hong Kong's Department of Health.

[5] In week 11, China had 184 cases (0.6% of the number during its worst week). In week 17, Korea had 69 cases (1.8% of worst week); Hong Kong had 8 cases (2.4%); and Taiwan had 7 cases (5.7%).

[6] The *China Daily* is regularly read by diplomats and policymakers in China, and by government, business, and academic elites overseas (Hartig, 2017); the *Global Times* is well-known internationally and often quoted by the foreign media (Huang, 2016); the *SCMP* appeals to the elite, highly educated segment of the population in Hong Kong and abroad (Fung et al, 2011); and the *Korea Herald* operates worldwide, distributing its content in 80 countries.

[7] The *China Daily* and the *Global Times* are connected to the *People's Daily*, the *Korea Times* is connected to *Hankook Ilbo*, and the *Taipei Times* is connected to the *Liberty Times*.

[8] Only editorials that represented the official view of each newspaper's editors were included. No editorials on Covid-19 were published before January 1st.

with a binary variable as to whether it contained an alarming tone. Every editorial was coded with a binary variable as to whether it exhibited an overall alarming tone—that is, if it primarily focused on the bad, dangerous, or frightening aspects of the pandemic. For instance, if an editorial emphasized the rising numbers of new infections, shortages of medical equipment, and no clear solutions, it was coded as alarming. However, if an editorial mentioned rising infections, but emphasized how a comprehensive government response was being implemented, it was not considered alarming.

Editorials were also coded for the content categories of consequence, responsibility, and action, based on whether these aspects were mentioned or discussed in the editorials. Consequences could take four forms—health, social, economic, or political. Health consequences included the impact of the pandemic on individuals' physical and mental health as well as consequences related to medical services. Social consequences included aspects of daily living, such as lockdowns, working from home, and schools shifting to remote education. Economic consequences involved the fiscal situation of individuals, companies, or countries. Finally, political consequences encompassed implications for politicians, political parties, or international relations.

Mentions or discussions of responsibility could take on two forms, coded as blame or praise. An editorial was coded as blame if a particular actor was criticized for some wrongdoing; praise was coded where an actor was commended for doing something right. Additionally, the names of the actors blamed or praised, such as government representatives, healthcare workers, and foreign leaders, were transcribed for further analysis.

Finally, recommended actions could take two forms, personal or societal. Personal actions concerned editorial advice for ordinary citizens, such as telling them to wash their hands or stay at home. Societal actions were things that the editorial writers thought governments, institutions, companies, experts, or other leaders should be doing—e.g., expanding testing, providing aid, or curtailing disinformation. The particular actions were transcribed by coders. Combining these three categories, each editorial was coded for the presence or absence of each of eight items as well as for tone.

During the initial period of testing and training coders on the codebook, some revisions were made to the variables and their definitions. Each newspaper was then coded by two coders, after which reliability tests were performed on all the coded editorials. These tests indicated relatively high levels of intercoder reliability.[9] After reliability testing, I identified all the inconsistent codings and determined the correct code through discussions with the coders. These corrections were reflected in the dataset of coded editorials used in the analysis.

Ultimately, we coded 330 editorials: 172 were published during the crisis breakout period and 158 during the abatement period. To statistically analyze how editorials published during the two periods differed, I used an editorial as the unit of analysis and ran nine logit regressions with binary variables for tone and the eight content categories. In each regression,

[9] Almost all the variables coded had scores above the acceptable levels of 85% agreement or 0.7 on Krippendorff's alpha. Praise in Taiwan was the softest coding, with 78% agreement and a 0.56 Krippendorff's alpha. See the appendix for details.

a binary crisis breakout/abatement independent variable was used.[10]

Findings

Issue Attention and the Pandemic

RQ1 considered the speed with which news coverage of the pandemic spread and how this pattern was associated with the proximity and proliferation of infections in each country or region. Figure 1 presents a chart for each location, plotting the number of weekly infections against the number of news articles (reports and editorials) on Covid-19 in the six newspapers. The crisis abatement line highlights the point beyond which the infections fell to and largely stayed at manageable levels. The first case of Covid-19 was reported on December 31 in Hubei, China, followed by 32 more in the first week of January. Hong Kong, Taiwan, and Korea had their first confirmed cases in the latter half of January. These three regions offer some evidence that proximity to the pandemic mattered. Hong Kong and Taiwan were closer to the outbreak, so their coverage was more immediate and extensive than Korea's.

In Korea, the news media paid some attention to the crisis during the first two months, but the country was relatively removed from the unfolding crisis in China due to its location and low numbers of in-country infections. During this time, the government imposed a travel ban for noncitizens from Hubei and tightened screening for travelers from mainland China, Hong Kong, and Macao (Yonhap 2020). On February 18, a woman known as "Patient 31" who had attended multiple religious services at the Shincheonji Church in the city of Daegu was diagnosed with Covid-19. Subsequently, positive cases rose rapidly. By the beginning of March there were over 4,000 cases, most of whom were Shincheonji churchgoers in Daegu or those who had come into contact with the churchgoers (Sang-Hun, 2020). Only at this point, with rapidly rising in-country infections, did the Korean news media turn their full attention to the crisis.

Although Hong Kong's *SCMP* and Taiwan's *Taipei Times* reported on the virus from week 1, the *SCMP* had more extensive coverage during the initial weeks. By the end of January, the *SCMP* had 81 articles on the pandemic, compared to 14 in the *Taipei Times.* Conceivably, Hong Kong's proximity to the outbreak and its shared border with China increased the risks and relevance for residents, relative to Taiwan.

In contrast to these three regions, China illustrates how state censorship can intervene to severely dampen news coverage, even when the country is ground zero of an outbreak and domestic infections are rising rapidly. The Chinese papers avoided covering the spread of the virus in the first weeks of January. During the first week of the crisis, there were no mentions of the virus in the Chinese newspapers we studied. In the following weeks, the number of articles on the pandemic increased slightly, but it did not reflect the seriousness of the virus's spread. For instance, in the fourth week of January there were 4,142 new infections in China but only 21 news articles in China's *Global Times*. Meanwhile, the *SCMP* carried almost twice as many articles. Other studies have found that state media largely ignored the spread

[10] For the logit regressions, weights were applied to the editorials. This approach was followed for two reasons: (1) so that each of the four regions would have an equal impact on the outcomes, and (2) to prevent regions with more editorials in the breakout or abatement period from biasing the results.

of the virus until January 21, even though authorities were aware of its severity (Cook, 2020a), and that Chinese media outlets were given directives to adhere to official narratives and were not allowed to quote sources or link the virus to severe acute respiratory syndrome (SARS) (Cook, 2020b).

As further evidence of the importance of proximity and the proliferation of infections, when the health crisis abated there was a general decline in news coverage in each of the four countries or regions, even though the virus's spread was still accelerating globally.

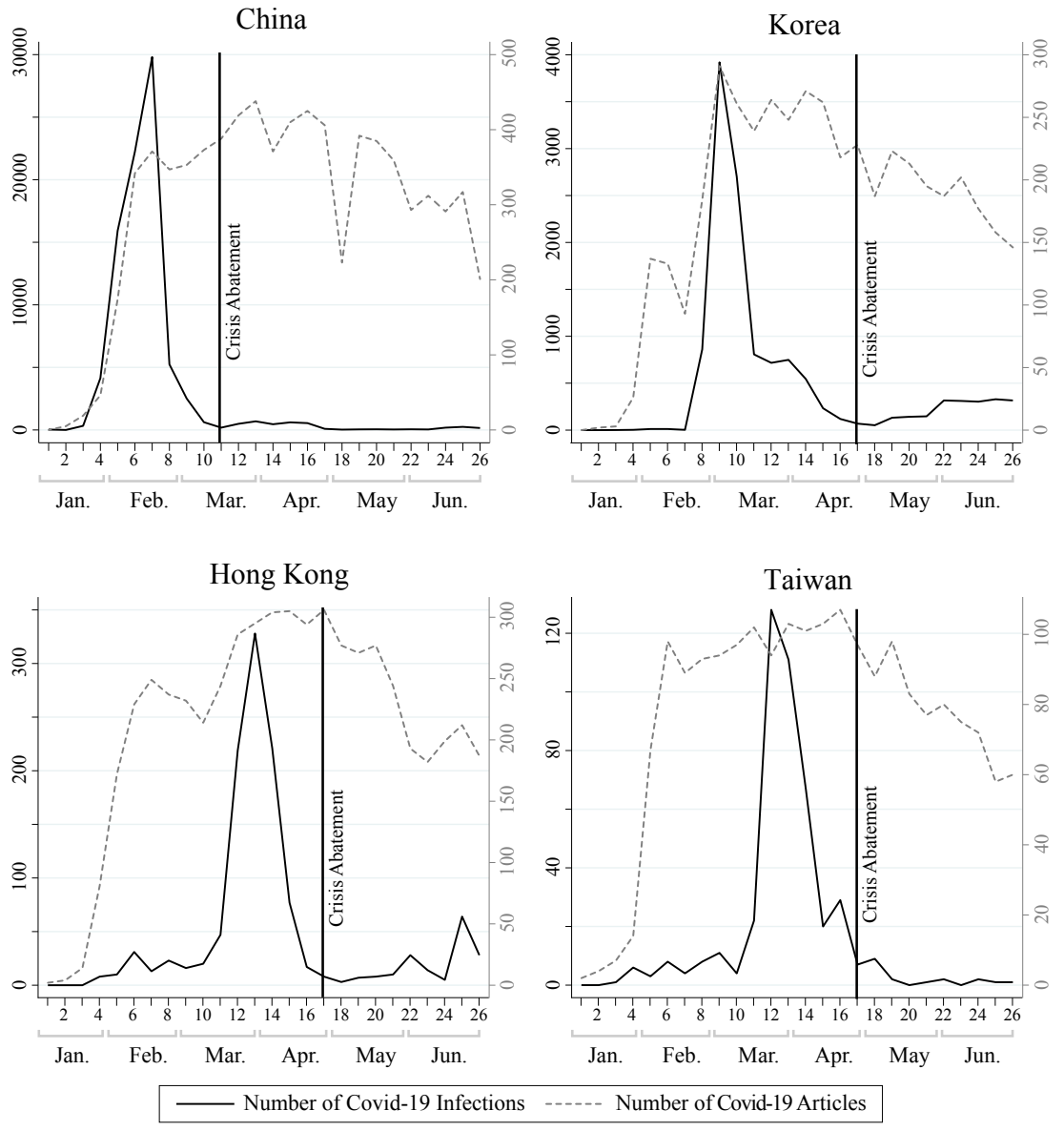


Figure 1. The number of new weekly infections and the number of articles related to Covid-19. Markings for the first 26 weeks of 2020 are indicated on the x-axis. The scale for infections is on the left axis, and the scale for articles is on the right axis.

Additionally, in more distant parts of the world, coverage of the pandemic was relatively low in January and February, at least compared to what it would become once the virus spread (Pearman et al. 2021). In sum, the findings suggest that although globalization may have

helped to spread news of the pandemic, the extent of coverage in any given region was tempered by the proximity and proliferation of infections in that region, as well as by political restraints on the news media.

Alarming Tone

To see how the period of time (crisis breakout versus abatement) affected the tone and content of editorials, I ran nine logit regressions.[11] To visualize these results more clearly, I plotted the marginal effects as shown in Figure 2. The black bars show the predicted percentage of editorials during the breakout period, and the gray bars represent percentages for the abatement period. In response to RQ2 on the extent and change in the tone of news coverage, the first two bars in Figure 2 indicate that 61% of editorials had an alarming tone and that this percentage did not change significantly after the health crisis abated.

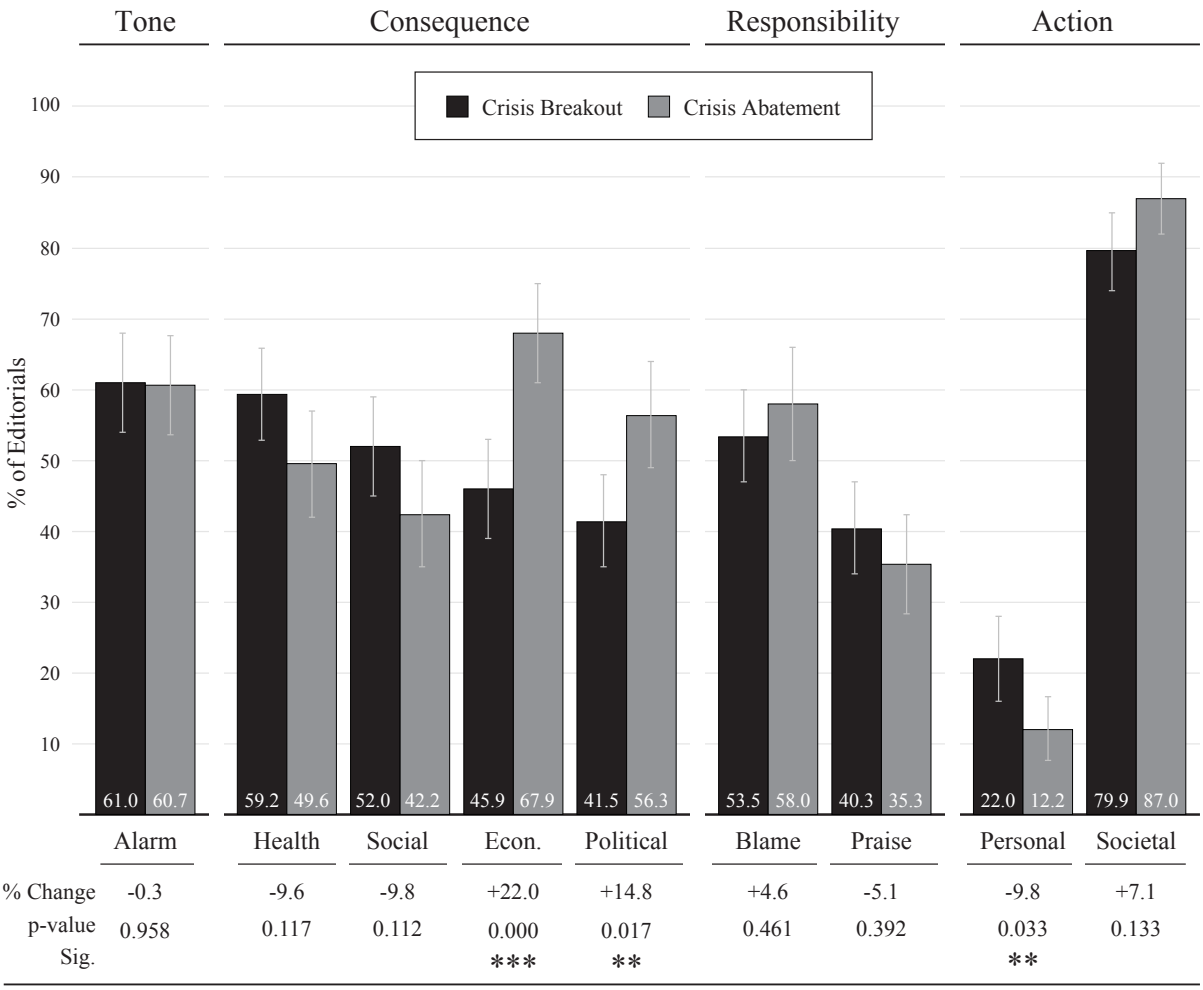


Figure 2. Predicted probabilities of the percentage of editorials with alarming tone, as well as consequence, responsibility, and action content, for the breakout and abatement periods. Confidence intervals are at 90%. *, **, *** indicate statistically significant differences between the breakout and abatement periods at the 0.05, 0.01, and 0.001 levels, respectively. See Table A4 in the appendix for the logit regression models.

[11] See appendix Table A4.

To investigate the tone of news coverage further, Table 1 presents the data for each country or region and uses chi-squared tests to indicate whether the change in tone was statistically significant. During the breakout period, Korea and Hong Kong had the highest frequency of alarming tone in their editorials, at 93% and 71%, respectively. During this period, Korean editorials were relentless in emphasizing the negative impact of the pandemic on the domestic economy, though they did note some success in contact tracing, testing, quarantine measures, and vaccine development. Although the Hong Kong editorials stressed the gravity of the situation, they were less alarmist, containing comments on lighter topics such as the Tokyo Olympics and the need for exercise.

Table 1.

Percentage of Editorials with Alarming Tone

Region	Overall	Breakout	Abatement	Change	Sig.	p-value	$\chi 2$
Korea	84	93	65	-28	***	0.000	14.355
Taiwan	71	67	79	12		0.340	0.909
Hong Kong	65	71	57	-14		0.308	1.038
China	35	14	42	28	***	0.006	7.501

*, **, *** indicate statistically significant differences between the breakout and abatement periods for each region at the 0.05, 0.01, and 0.001 levels, respectively, using $\chi 2$ tests. No weighting of editorials was necessary. This note also applies to Tables 2–4.

In the abatement period, Korean editorials were still concerned with unemployment and income, but there was a statistically significant drop of 28 percentage points in the portion of editorials with an alarming tone. The more positive tone manifested itself in editorials concerning the actions that could be taken to restart the economy. Hong Kong's sample of editorials also became more positive, with more reports on the opening of schools and the recovery of business activity, but this 14-percentage point decline in alarming tone was not statistically significant. In some respects, we can understand this pattern as a reflection of the dangers of the pandemic, followed by a sense of relief and optimism among editors after infections declined to manageable levels.

In contrast, the tone of the Taiwanese and particularly the Chinese editorials exhibited a different pattern. During the crisis breakout, China's editorials were highly reassuring; only 14% of them had an alarming tone. Editorials urged readers not to panic and reassured them that the authorities had everything under control, even as new infections and deaths from the still-mysterious virus surged. Chinese editors communicated these reassurances even as the unprecedented move to lockdowns in multiple cities clearly indicated that the government itself was alarmed by the virus. Most interesting of all, the Chinese editorials became far *more* alarmist (+28 percentage points) when the crisis abated. The Chinese editorials shifted from domestic to international concerns; reflecting deteriorating relations with the U.S., they vehemently attacked that country's handling of the pandemic and its unfair treatment of China in relation to the crisis.

Similarly, during the abatement period the sample of Taiwanese editorials increasingly exhibited an alarming tone, criticizing China for its slow response to the virus

and its interference with the World Health Organization (WHO). Additionally, they criticized the WHO for pandering to China. In part, these criticisms are rooted in Taiwan's frustrations at being blocked by China from becoming a member of the WHO. Although the rise in alarmist editorials (+12 percentage points) was not statistically significant, these results have some credence since almost all the *Taipei Times* editorials on Covid-19 were coded.

The Pandemic and Its Consequences

RQ3 concerned the consequences of the pandemic discussed in the editorials and how they may have changed once the crisis abated. Figure 2 above, which combines all four regions, demonstrates that during the breakout period the top two consequences of the pandemic concerned health and social issues, which appeared in 60% and 52% of editorials, respectively. However, a shift occurred in the abatement period, with a statistically significant increase of 22 percentage points for editorials with economic consequences and 15 percentage points for editorials with political consequences. Although some editorials continued to report on health and social consequences, economic and political issues became the top two consequences of the pandemic in the editorials once the crisis abated. Beyond these broad findings, Table 2 indicates some variation across the four regions. While Korea and Taiwan largely accounted for the rise in economic consequences shown in Figure 2, China and Taiwan accounted for the rise in political consequences.

During the breakout period, Korea and Taiwan had similar levels of health, social, and economic consequences in their editorials. However, once the crisis abated, there was a statically significant rise in news coverage of economic consequences in both countries. As a result, economic consequences received two to four times more attention than health and social consequences during this period. In Korea, once the crisis abated, many editorials focused on the government's plan to revive the economy, particularly in relation to job creation and funding for businesses, while a few emphasized the economic fallout of deteriorating U.S.–China relations. Similarly, Taiwanese editorials published during the abatement period, prominently discussed economic issues, such as the bleak economic outlook and the drop in global trade.

Most intriguing was the rise of political consequences in China and Taiwan. As U.S.–China political tensions rose, the pandemic became an acute source of contention in Chinese editorials—particularly as the health crisis abated in China but grew in the U.S. Three political themes were prominent in the Chinese editorials. First, they pushed back against the use by U.S. leaders (usually President Donald Trump and Secretary of State Mike Pompeo) of the term "Wuhan virus," and also against statements declaring that the virus had come from a Wuhan lab, questioning whether China was sharing all the information it had, and contending that China should pay for damages caused by the pandemic. The second line of argument accused the U.S. of incompetence in ignoring experts, doing little to prevent the virus's spread, and thereby causing thousands of deaths. This poor performance was in sharp contrast, the editorials noted, with China's success in controlling the pandemic and rebooting its economy. Third, the editorials derided the U.S. as not a global leader in the fight against the virus. Beyond charging basic incompetence, Chinese editorials reported on U.S. threats to freeze funds for the WHO, which the U.S. characterized as China's puppet. Conversely, they praised China as the real leader in global cooperation. They reported that China had dispatched medical professionals and supplies around the world, would provide $2 billion to fund the global fight, and would make any vaccines it developed a global public good.

Table 2

Percentage of Editorials with Consequence Content

Consequence	Region	Overall	Breakout	Abatement	Change	Sig.	p-value	χ2
Health	Korea	44	49	32	-17	*	0.092	2.846
	Taiwan	42	50	26	-24		0.090	2.867
	Hong Kong	62	62	62	0		0.992	0.000
	China	77	76	78	2		0.833	0.045
Social	Korea	35	41	22	-19	**	0.042	4.118
	Taiwan	51	58	37	-21		0.130	2.298
	Hong Kong	53	50	57	7		0.606	0.266
	China	55	59	53	-6		0.608	0.264
Economic	Korea	65	53	86	33	***	0.001	11.729
	Taiwan	56	47	74	27	*	0.060	3.541
	Hong Kong	45	38	57	19		0.171	1.872
	China	52	45	54	9		0.380	0.771
Political	Korea	41	41	41	0		0.955	0.003
	Taiwan	56	42	84	42	***	0.002	9.152
	Hong Kong	33	38	24	-14		0.268	1.227
	China	68	45	77	32	***	0.002	9.901

In the Taiwanese editorials, the pandemic became an acute source of political contention with China. During the breakout period, the editorials focused primarily on health and social consequences relating to the spread of the virus, controlling borders, and bringing Taiwanese citizens home from China. Once the crisis abated, the proportion of editorials with political consequences increased significantly, with the vast majority focusing on China. Editors criticized China for factors contributing to the spread of the virus, such as lax procedures at the Wuhan lab, unsanitary wet markets, and failure to share information on the virus. Editors also lamented that Taiwan, despite its great success in fighting the pandemic, was sidelined by the WHO director-general, and excluded from contributing to the World Health Assembly. These objections prompted a Chinese editorial advising Taiwan not to be reckless, as misjudgments could place the island in real danger (*Global Times*, April 10, 2020). Most of the Taiwanese editorials depicted China as a bad actor with aggressive tendencies in its competition with the U.S, the Hong Kong protests, border issues with India, and claims over disputed territory in the South China Sea. Moreover, amidst the global economic downturn, editorials argued that many countries were reducing their dependence on China and pushing back against its propaganda.

Finally, Hong Kong was remarkable for its absence of editorials with political consequences—particularly when the crisis abated. A few editorials were somewhat critical of the Trump administration, but unlike their counterparts in Taiwan, Hong Kong editors did not criticize China's central government.

The Pandemic and Responsibility

RQ4 concerns the matter of responsibility, operationalized as the presence of blame or praise

in editorials during the pandemic. Figure 2 shows that overall, blame was more common than praise. In the breakout period, 54% of editorials used blame while 40% used praise. There was no statistically significant change in these levels during the crisis abatement period.

Table 3

Percentage of Editorials with Responsibility Content

Responsibility	Region	Overall	Breakout	Abatement	Change	Sig.	p-value	χ2
Blame	Korea	67	74	54	-20	**	0.035	4.425
	Taiwan	67	67	68	1		0.895	0.017
	Hong Kong	36	35	38	3		0.834	0.044
	China	63	38	72	34	***	0.001	10.357
Praise	Korea	25	18	38	20	**	0.021	5.319
	Taiwan	45	56	26	-30	**	0.038	4.289
	Hong Kong	27	29	24	-5		0.650	0.205
	China	55	59	53	-6		0.608	0.264

Beyond these broad findings, Table 3 indicates some variation across the four regions. During the breakout period, Korean editorials had the highest level of blame (74%) and the lowest level of praise (18%). Korean editors, in large part, held the government and Korean President Moon Jae-in responsible. They blamed the government initially for an insufficient response to the virus, inadequate border control, a failure to help the economy, and lack of support for business. Other targets of blame included China for underestimating the virus and lacking transparency, the Shincheonji Church for spreading the virus, and citizens for hoarding and not observing social distancing. Once the crisis abated, there was a statistically significant decline in blame and a concurrent rise in praise. Editors noted that Korea was viewed globally as a model case and praised the government for curbing the virus through aggressive testing, contact tracing, and quarantine procedures. The general approach among Korean editors was to raise the alarm during the pandemic, holding the government and other actors responsible, followed by some positive assessment once things improved.

Hong Kong editors only occasionally attributed blame or praise during the breakout and abatement periods. Blame was placed at first primarily on the Hong Kong administration for its indecisive action, and later on the Trump administration for its complacent approach to the pandemic and its pandemic-related attacks on China. Meanwhile, China's central government avoided blame and even received occasional praise for its control of the virus. Overall, the editorials tended to take the form of factual reporting with some recommendations, rather than strident expression of opinion.

In this respect, the Taiwanese and Chinese editorials differed from those in Hong Kong, as they blamed and shamed particular actors more frequently. Taiwanese editors blamed China mostly for its lack of transparency and its handling of the pandemic, but also the WHO and its director-general for kowtowing to China and excluding Taiwanese participation. Praise was common in the editorials, mostly recognizing the prompt and decisive actions taken by the Taiwanese government and its leaders.

During the crisis breakout, some Chinese editorials blamed the U.S. government and

news media or shamed Chinese citizens for concealing travel histories or symptoms. However, once the crisis abated, there was a statistically significant rise in blame (+34 percentage points), with relentless criticism of the U.S. government (and its representatives such as Trump and Pompeo) and U.S. news media outlets. These entities were blamed for failing to curb the virus, slandering China, unfairly attacking the WHO, and generally undermining global cooperation. Meanwhile, compared to the editors from the other regions, Chinese editors used praise most frequently, both during the breakout and abatement periods. Almost all of this praise was showered on the central government and its leaders for containing the virus so promptly, rebooting the economy, and helping other nations.

The Pandemic and Recommended Actions

RQ5 concerns the actions recommended by editors and how they may have changed once the crisis abated. Overall, the data show (Figure 2) that during the breakout period societal action recommendations were far more common (80% of editorials) than personal actions (22%). In the abatement period, there was not much change in societal recommendations, but there was a statistically significant drop in personal actions of 10 percentage points.

Table 4

Percentage of Editorials with Action Content

Action	Region	Overall	Breakout	Abatement	Change	Sig.	p-value	χ2
Personal	Korea	15	18	8	-10		0.173	1.859
	Taiwan	15	19	5	-14		0.156	2.012
	Hong Kong	22	26	14	-12		0.288	1.130
	China	22	24	21	-3		0.724	0.124
Societal	Korea	95	93	100	7		0.103	2.655
	Taiwan	78	81	74	-7		0.557	0.344
	Hong Kong	67	53	90	37	***	0.004	8.307
	China	86	93	84	-9		0.218	1.519

The advice for individuals was similar across the four countries and regions. People were advised to wash their hands, maintain social distancing, refrain from traveling, and comply with self-quarantine guidelines. Additionally, potentially negative behaviors such as concealing symptoms, hoarding rice, and spreading fake news on social media were discouraged.

The high level of societal recommendations suggests a reliance on the state to handle the pandemic in East Asia. There were similarities in the kinds of societal actions recommended across regions, as they often revolved around government steps to control the virus, secure borders, and protect and rejuvenate the economy. There were also some differences, however.

Unlike the other countries, Hong Kong editorials continued to recommend government actions to prevent the virus from reemerging after the breakout period. Moreover, the Hong Kong editors called on the government to protect jobs and also advised the Chinese and U.S. governments to cooperate more.

China's editorials during the breakout period reported mainly on what national authorities were doing, or what local authorities should be doing, to contain the virus. Most comments concerned measures to control public behavior, such as border control, tracking down infected cases, and quarantines. Once the crisis abated, there was a shift to international issues, frequently directed at U.S. actions, and reports on the Chinese government's steps to reboot the economy. Taiwanese editorials exhibited a similar pattern. During the breakout period, they recommended actions to contain the virus; once the crisis abated, they highlighted China's behavior and the actions needed to boost the domestic economy.

Unlike the other regions, the Korean editorials had little to say on international matters, as they focused primarily on domestic concerns. Although many editorials offered advice and opinions on controlling the virus, the push for economic reform was more prominent. During the breakout period, and even more so afterwards, editors pressed for pro-market reforms to foster a business-friendly environment. They advised the government to cut corporate taxes, provide more corporate loans and aid, cut regulations, create a more flexible job market, and reel in spending.

Discussion and Conclusions

Looking at the data from all four East Asian countries and regions combined, a number of key findings emerge. First, in terms of issue attention, the level of news coverage was affected by the proximity of the virus and the proliferation of infections, as well as by state censorship. Second, in terms of tone, most editorials were alarming in nature, and the level of alarm did not decline when the crisis abated. Third, in terms of content, there was a rise in economic and political consequences in the crisis abatement period; blame was more common than praise; societal actions were recommended far more often than personal actions; and recommendations of personal actions declined once the crisis abated.

Within these overall patterns, there were variations in issue attention, tone, and content across regions, with news coverage in each region responding to the crisis in distinctive ways.

Of all the regions, the Korean papers were the most inward-looking. Korea was slow to cover the pandemic after the outbreak in China, and news coverage turned its full attention to the crisis only when in-country infections were rising rapidly. At that point, the editorials adopted a very alarming tone. In terms of editorial content, the Korean papers largely provided pertinent information to their audience on how the pandemic might affect them, held authorities accountable, and offered independent advice. Korean news media enjoy the freedom to question their government, and the *Korea Times* and *Korea Herald* did not hesitate to criticize the left-leaning government's handling of the pandemic with alarming editorials. This pattern is similar to that found in previous studies of pandemics in Korea and Italy, where newspaper coverage frequently blamed the government, often in alarming tones (Choi and McKeever, 2019; Cornia et al., 2016). Moreover, the Korean editors focused largely on domestic goals, and the economic turmoil unleashed by Covid-19 gave editors an opportunity to press for pro-business, economic reforms. Although the Korean papers' independence and domestic focus may have shaped their coverage, in the other three countries or regions the newspapers' relationship with the government and the international political context within which they operate likely had a more considerable impact on coverage patterns.

The coverage of Covid-19 in the two Chinese state-controlled papers, the *China Daily* and the *Global Times*, was in line with government imperatives. The papers initially delayed covering the virus and then presented a message of reassurance and success, heaping praise on the central government for winning the war against the virus. These themes and patterns of coverage were also evident in other state-run media outlets in China (Cook, 2020a). Scholars noted similar kinds of coverage in studies of the SARS epidemic (Beaudoin, 2007; Luther and Zhou, 2005). The *Taipei Times* editorials generally supported the DPP government's approach to the pandemic, although they did not downplay the seriousness of the epidemic. This stance was in line with the views of its publisher, which also publishes the Chinese-language, pro-DPP *Liberty Times*.

Once the initial crisis abated, the *China Daily*, *Global Times*, and *Taipei Times* editors used Covid-19 as a political wedge to attack their international rivals. Taiwanese editors criticized the Chinese government, while Chinese editors offered scathing attacks on the U.S. These editorials aimed to foster nationalist fervor and consolidate government support at home while challenging adversaries' narratives abroad.

In contrast, the *SCMP* avoided politicizing the pandemic, perhaps to balance the imperatives of maintaining an independent voice and not offending Beijing. In recent years, the *SCMP* and other Hong Kong news media outlets have faced increasing pressure to censor content critical of China. Since the *SCMP*'s acquisition by Alibaba, its journalists, speaking on condition of anonymity, have described how the paper avoids investigative reporting on CCP leaders or other potentially sensitive topics such as human rights (Hernández, 2018). Other critics have noted an increase in the number of stories about Xi Jinping and more pro-Beijing comments in *SCMP* editorials (Lim and Bergin, 2018). Indeed, the *SCMP's* cautious, factual, and less opinionated commentaries on Covid-19 may have reflected such restraint. They either focused on local health and social consequences of the pandemic or played the role of peacemaker by calling for more U.S.–China cooperation.

The pandemic continued to have an impact after this study took place with new waves of infections in Hong Kong, Taiwan, and Korea. In addition, press freedom has continued to decline in Hong Kong, most notably with the forced closure of the city's last major prodemocracy newspaper, Apple Daily. Meanwhile, China has been criticized for propagating disinformation concerning the emergence and spread of Covid-19 around the world.

Cross-border studies of news coverage of pandemics are quite rare,[12] but they are very valuable in helping us understand how journalism works and its interrelationship with politics. The analysis in this study illustrates how news media coverage of a health crisis is refracted through a partisan lens and becomes a wedge issue used by powerful actors to pursue particular economic and political goals.

[12] For example, Klemm et al. (2016) could find only one multi-country study on the H1N1 pandemic.

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Online Appendix

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Table A1.

Numbers of Editorials by Newspaper

Region	Newspaper	Crisis Abatement Beginning Week	Total Editorials on Pandemic	Sampled Editorials		
				Breakout	Abatement	Total
Korea	*Korea Herald*	W17	57	38	17	55
Korea	*Korea Times*	W17	103	35	20	55
Hong Kong	*South China Morning Post*	W17	163	34	21	55
Taiwan	*Taipei Times*	W17	70	36	19	55
China	*Global Times*	W11	104	16	39	55
China	*China Daily*	W11	136	13	42	55
		Total	**633**	**172**	**158**	**330**

Note: Editorials were coded from January 1st to June 30th, a 26 week period. The date when the crisis abatement period began varied between region, as it related to the week when the number infected dropped to a manageable level close to zero.

Table A2.

Coding Variables and Inter-coder Reliability Tests

	Korea		Taiwan		Hong Kong		China		All	
	%	Krip.	%	Krip.	%	Krip.	%	Krip.	%	Krip.
Alarm	0.91	0.67	0.86	0.66	0.91	0.79	0.88	0.74	0.89	0.77
Health Consequences	0.90	0.80	0.89	0.77	0.95	0.89	0.93	0.80	0.92	0.83
Social Consequences	0.92	0.82	0.95	0.89	0.96	0.93	0.90	0.80	0.96	0.91
Economic Consequences	0.96	0.90	0.96	0.93	0.96	0.93	0.95	0.89	0.92	0.85
Political Consequences	0.85	0.69	0.93	0.86	0.87	0.70	0.86	0.70	0.87	0.74
Blame	0.83	0.62	0.96	0.92	0.87	0.74	0.95	0.89	0.90	0.79
Praise	0.90	0.74	0.78	0.56	0.95	0.87	0.88	0.77	0.88	0.75
Personal Actions	0.96	0.81	1.00	1.00	1.00	1.00	0.99	0.97	0.98	0.94
Societal Actions	0.97	0.71	0.95	0.84	0.86	0.62	0.96	0.86	0.95	0.78

Note: % represents the Percentage of Agreement. Krip. stands for Krippendorff's Alpha

Table A3

Summary Statistics for the Independent Variables by Region

		Obs	Mean	Std. Dev.	Min	Max
All Editorials	Alarm	330	0.62	0.49	0	1
	Health Consq	330	0.58	0.49	0	1
	Social Consq	330	0.47	0.50	0	1
	Economic Consq.	330	0.56	0.50	0	1
	Political Consq.	330	0.51	0.50	0	1
	Blame	330	0.61	0.49	0	1
	Praise	330	0.38	0.49	0	1
	Personal Actions	330	0.18	0.39	0	1
	Societal Actions	330	0.85	0.36	0	1
Chinese Editorials	Alarm	110	0.35	0.48	0	1
	Health Consq	110	0.77	0.42	0	1
	Social Consq	110	0.55	0.50	0	1
	Economic Consq.	110	0.52	0.50	0	1
	Political Consq.	110	0.68	0.47	0	1
	Blame	110	0.63	0.49	0	1
	Praise	110	0.55	0.50	0	1
	Personal Actions	110	0.22	0.41	0	1
	Societal Actions	110	0.86	0.34	0	1
Korean Editorials	Alarm	110	0.84	0.37	0	1
	Health Consq	110	0.44	0.50	0	1
	Social Consq	110	0.35	0.48	0	1
	Economic Consq.	110	0.65	0.48	0	1
	Political Consq.	110	0.41	0.49	0	1
	Blame	110	0.67	0.47	0	1
	Praise	110	0.25	0.43	0	1
	Personal Actions	110	0.15	0.35	0	1
	Societal Actions	110	0.95	0.21	0	1
Hong Kong Editorials	Alarm	55	0.65	0.48	0	1
	Health Consq	55	0.62	0.49	0	1
	Social Consq	55	0.53	0.50	0	1
	Economic Consq.	55	0.45	0.50	0	1
	Political Consq.	55	0.33	0.47	0	1
	Blame	55	0.36	0.49	0	1
	Praise	55	0.27	0.45	0	1
	Personal Actions	55	0.22	0.42	0	1
	Societal Actions	55	0.67	0.47	0	1
Taiwanese Editorials	Alarm	55	0.71	0.46	0	1
	Health Consq	55	0.42	0.50	0	1
	Social Consq	55	0.51	0.50	0	1
	Economic Consq.	55	0.56	0.50	0	1
	Political Consq.	55	0.56	0.50	0	1
	Blame	55	0.67	0.47	0	1
	Praise	55	0.45	0.50	0	1
	Personal Actions	55	0.15	0.36	0	1
	Societal Actions	55	0.78	0.42	0	1

Table A3.

Impact of Crisis Abatement Period on Editorial Tone and Frames (Logit Model)

	Tone	**Consequence**				**Responsibility**		**Action**	
	Alarm	Health	Social	Econ.	Pol.	Blame	Praise	Per.	Soc.
	1	2	3	4	5	7	8	9	10
Crisis Abatement	-0.01 (0.25)	-0.39 (0.25)	-0.40 (0.25)	0.91*** (0.26)	0.60** (0.25)	0.19 (0.25)	-0.22 (0.25)	-0.71** (0.33)	0.52 (0.36)
Intercept	0.45*** (0.17)	0.37** (0.16)	0.08 (0.16)	-0.16 (0.16)	-0.35** (0.17)	0.14 (0.16)	-0.39** (0.17)	-1.27*** (0.20)	1.38*** (0.21)
N	330	330	330	330	330	330	330	330	330
Pseudo R2	0.00	0.01	0.01	0.04	0.02	0.00	0.00	0.02	0.01
Log	-294.46	-301.20	-302.10	-289.82	-300.02	-301.60	-291.16	-197.25	-195.17

Note: This table presents the results of regression analyses for independent variables (rows) and dependent variables (columns). Entries are coefficients from the Logit regression model. Standard errors are in parentheses.