The Impact of Social Media Use on Online Collective Action During China's COVID-19 Pandemic Mitigation: A Social Identity Model of Collective Action (SIMCA) Perspective

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The role of social media in fostering collective action in China is under constant debate, and the mechanism underlying the effects of social media use on collective action has not garnered sufficient scholarly attention. This study aims to investigate the (in)direct effects of attention to social media—administered by the governmental (gov) and nongovernmental sectors (nongov), respectively—for information about COVID-19 mitigation in China on intention to participate in online collective action (IPOCA). Findings from a survey suggest that attention to both social media (gov) and social media (nongov) directly predicted IPOCA. The indirect effect of attention to social media (gov) on IPOCA was significantly mediated by social identification. This study evidences the impact of social media on collective action in China and theoretically underpins its mechanisms through the social identity model of collective action.

Keywords: social identity model of collective action, China, COVID-19 pandemic, social media

Social media have become some of the public's major sources of information about national and local COVID-19 mitigation measures (Nielsen, Fletcher, Newman, Brennen, & Howard, 2020). Scholars in social media and political communication studies have long been fascinated by the political implications of the informational uses of social media, which refers to "seeking, gathering, and sharing various kinds of information via social media, including news, community information, and campaign information" (Skoric, Zhu, Goh, & Pang, 2016, p. 1827). The online environment provides individuals with opportunities to digitalize collective actions, such as signing online petitions and initiating online campaigns (Wang & Shi,

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2018), aiming to secure public goods (Margetts, John, Hale, & Yasseri, 2016). Building on prior scholarship on mediated communication and sociopsychological mechanisms of collective action (e.g., Chan, 2016, 2017; Li & Chan, 2017; Xia & Shen, 2018), this study examines how attention to social media for information about the COVID-19 mitigation measures, directly and indirectly, influences intention to participate in online collective action (IPOCA) in mainland China (hereinafter "China," unless otherwise stated). In line with prior research (Bennett & Segerberg, 2012; Margetts et al., 2016; Qiu, Lin, Chiu, & Liu, 2015; van Zomeren, Postmes, & Spears, 2008; Xue & van Stekelenburg, 2018), we conceptualize online collective action as civically initiated online activities participated by a collection of Internet users, with or without organization, aiming to resolve the perceived group's disadvantages and secure common benefits through influencing government policy decisions.

The role of social media in fostering collective action in China has been under constant academic debate, given the intertwining open space and governmental censorship in China's digital environment (MacKinnon, 2012; Zhang & Lin, 2014). Social media platforms such as Weibo (microblogging), WeChat (messaging, video sharing, and many other functions), and Douyin (video sharing; known in the United States as TikTok) are inhabited by not only the general public and commercial organizations but also the government sectors, including government agencies and state-sponsored news media. The top-down nature of the accounts of government sectors (Jia, Liu, & Shao, 2019) and the bottom-up nature of those of nongovernmental sectors (Tong & Lei, 2013; Wang & Shi, 2018) have complicated the potential of social media in fostering collective action in China. Backed up by the state (Ekiert, Perry, & Yan, 2020), the government itself has initiated state-sponsored collective actions such as organizing the grass roots to interact with the idolized Chinese state, "Brother China," on Weibo, to establish its legitimacy (Yang, 2021). Moreover, given the overall restrictions on online collective action in China (King, Pan, & Roberts, 2013), a growing body of scholarship is interested in seeking answers to the question of "whether social media can function as a catalyst and a central locus of political change" in China (Skoric, Zhu, & Pang, 2016, p. 334).

Our nuanced understanding of the relationship between social media use and collective action in China is also limited by the lack of examination of the mechanisms that mediate the two variables. As proposed in the social identity model of collective action (SIMCA; van Zomeren et al., 2008), three group-based sociopsychological factors—injustice, social identification, and efficacy—are robust predictors of collective action. Responding to the call for examining how social media use can impact the three sociopsychological factors identified in SIMCA (Chan, 2017), this study aims to examine the roles of informational injustice perception, social identification, and participative efficacy in mediating the relationship between attention to social media and IPOCA. Considering that COVID-19 mitigation measures have been systematically implemented in almost every locality in China (Mei, 2020), we contextualize the three predictors of collective action proposed in SIMCA at the community level.

The context of the COVID-19 pandemic allows us to explore the potential of social media use in fostering collective action and to examine the mechanisms between social media use and collective action in China. First, a recent report showed that the COVID-19 pandemic witnessed a 58% increase in usage of China-based social media applications in China (Kantar, 2020), which urges academia to examine the political implications of social media use. Second, the pandemic witnessed the Chinese public's discontent with the government mitigation measures expressed on social media (Han, Wang, Zhang, & Wang, 2020; Liao et al.,

2020). It is intriguing to see whether social media will trigger collective action to change the political decision making and, if yes, how. Third, during the pandemic, the social media space in China has been occupied by both civically initiated activities and governmentally organized collective actions in response to the pandemic. For instance, the public has taken to social media to express grievances against the marginalization of female medical workers (Yang, 2021), share censored news, and provide doctors' testimonials about a lack of supplies (Wang & Hernández, 2020) in response to the government's pandemic mitigation measures. In the meantime, state-mobilized civil society and governmental agencies have been devoted to initiating collective and highly organized actions online, such as recruiting volunteers and donating money (Fu, 2021). Given the restricted social media space squeezed by the government, as well as the overall control imposed on civic collective behaviors, the implications of social media in bringing about political changes in China become more tentative. Therefore, it is crucial to systematically investigate the potential of social media in eliciting intentions to participate in online collective action and the mechanisms within.

Social Media Use and Collective Action in China

Existing studies on the relationship between social media and collective action typically focus on social media use in a general sense. For instance, research has found that seeking information through social networking services (SNSs) can motivate collective action (e.g., signing a supportive signature for and giving financial support to collective political action) in Hong Kong, China (hereinafter "HK"; Ji, Zhou, & Kim, 2017). Despite the censorship of social media in mainland China, using SNSs for information, such as reading hard news, positively predicted participation in collective action (e.g., taking part in demonstrations; Zhang & Lin, 2014).

Nevertheless, the complicated social media environment in China, as well as its political implications, needs more nuanced examinations. Accounts administrated by the government sectors (e.g., government departments and state-sponsored news media) mainly function as channels for governmental information dissemination and delivery of public services (Jia et al., 2019). Regarding the effects of attention to social media accounts of government sectors (hereinafter "attention to social media [gov]"), Jia and colleagues (2019) found that seeking information from these accounts significantly predicted perceived government transparency and satisfaction with the government among Beijing citizens. Studies also showed that during the pandemic, accounts of China's government sectors mainly posted information about situation updates for COVID-19 and corresponding policies, guidelines, and official actions (Han et al., 2020; Liao et al., 2020). Weibo users were found to have actively interacted with government agencies through dialogue loops enabled by the social media platform during the pandemic (Chen et al., 2020). Nevertheless, social media users are not immune to conflicting information disseminated by other accounts, although they attend to governmental ones for information. The implications of attention to social media (gov) on fostering collective action need to be further clarified.

Accounts of nongovernmental sectors, such as opinion leaders and grass roots users, offer alternative sources of information and sometimes voice critical opinions on social issues (Tong & Lei, 2013; Wang & Shi, 2018). As to the effects of attention to social media accounts of nongovernmental sectors (hereinafter "attention to social media [nongov]"), Wang and Shi (2018) found that one's frequency of reading microblogs written by opinion leaders (e.g., citizen journalists) positively predicted online collective

action. During the pandemic, people may pay attention to social media accounts of nongovernmental sectors for information, such as personal experiences of and comments on the government pandemic mitigation measures. Liao and colleagues (2020) found that personal accounts on Weibo, compared with government accounts, devoted many posts to condemning governmental organizations for incompetent mitigation measures. Moreover, Han and colleagues (2020) identified negative sentiment toward the government among Weibo users during the pandemic. Given the censored social media environment in China, whether attention to social media (nongov) may prompt social media users to resort to online collective action to change and improve the government pandemic mitigation measures deserves examination. Therefore, the following research question is proposed:

RQ1:   *Regarding searching for information about China's COVID-19 pandemic mitigation measures, how are (a) attention to social media (gov) and (b) attention to social media (nongov) related to IPOCA?*

Social Media Use and SIMCA

A lack of examination of the mediators between social media use and collective action limits our nuanced understanding of the mechanisms of collective action triggered by the prevalent and easy-access social media platforms in China. Therefore, this study investigated the relationships between attention to social media (gov and nongov), the three sociopsychological factors of collective action (i.e., informational injustice perception, social identification, and participative efficacy) as posited in SIMCA (van Zomeren et al., 2008), and IPOCA in China.

Three Sociopsychological Factors and Collective Action

Tracing back to Gamson (1992), injustice, agency, and identity were viewed as predictors of collective action. Injustice refers to individuals' perception of unfairness in the political structure, agency means individuals' belief in their capability to achieve desired political outcomes, and identity points to the in- and out-group differentiation because of conflicts of interests (Gamson, 1992). Inheriting Gamson's (1992) theoretical foundation, van Zomeren and colleagues (2008), based on meta-analysis, proposed SIMCA explicating the effects of three sociopsychological factors on collective action, namely injustice, social identification, and efficacy. According to the model, people will resort to collective action when they perceive inequality, identify with the group attempting to mobilize collective action, and believe in their own and/or group's ability to resolve the grievances.

SIMCA transcends the disciplinary boundaries of, for example, psychology, sociology, and political science, and bridges the psychological and social perspectives on understanding the mechanisms motivating people's engagement in collective action (van Zomeren et al., 2008). This model is integrative in considering the three major predictors of collective action, which offers a "more comprehensive and complete account of collective action" (van Zomeren et al., 2008, p. 506). The model has shown robustness in many sociopolitical contexts (e.g., Bamberg, Rees, & Seebauer, 2015; Chan, 2017; Rees & Bamberg, 2014; Thomas, Zubielevitch, Sibley, & Osborne, 2020).

According to SIMCA (van Zomeren et al., 2008), injustice influences collective action. Studies that examined the relationship between affective injustice (e.g., anger toward an institution) and collective action yielded mixed findings (see e.g., Bamberg et al., 2015; Chan, 2016, 2017; Rees & Bamberg, 2014). Other studies explored the cognitive aspect of injustice (e.g., Osborne, Yogeeswaran, & Sibley, 2015; Tee, Ramis, Fernandez, & Paulsen, 2017; Thomas et al., 2020). For example, Thomas and colleagues (2020) identified that injustice perceptions of the discriminated economic status among New Zealand European (advantaged groups) and Māori (disadvantaged groups) participants both positively predicted support for collective action. The positive relationship between injustice perception and collective action may be explained by the argument that "fairness perceptions may play in the formation of civically relevant attitudes" (Besley, McComas, & Waks, 2006, p. 802).

Integrating the theory of organizational injustice perception (Colquitt, 2001; Colquitt & Rodell, 2015), SIMCA identifies four types of injustice perceptions, namely distributive, procedural, interpersonal, and informational injustice perceptions (Tee et al., 2017). Distributive justice refers to equal allocation of resources. Procedural justice refers to fair process of decision making. Interpersonal justice refers to polite and respectful interpersonal treatment. Informational justice refers to adequate justifications of procedures. Tee and colleagues (2017) found that Malaysians who had stronger perceptions of injustice, including biased procedures of handling the issue, disrespectful treatment, and dishonest communications, were more likely to engage in collective action to rectify the Malaysian prime minister's misuses of public funds.

This study focuses specifically on informational injustice because of its relevance to the COVID-19 pandemic. Health and science controversies surrounding the pandemic are pervasive. People are in urgent need of candid, thorough, reasonable, timely, and tailored communication from the governments about their measures to tackle the pandemic. This public health incident provides a suitable context to test the relationship between informational injustice perception and collective action. Lee, Chen, and Chan (2017) identified that those with stronger negative perceptions of the government's performance had more positive attitudes toward HK's Umbrella Movement and were more likely to have participated in relevant digital civic activities. Therefore, people who perceived that they were not fairly informed by the government concerning the pandemic mitigation measures may resort to collective action to change the situation.

As another key element of SIMCA, social identification is postulated to predict collective action directly and indirectly through injustice and efficacy (van Zomeren et al., 2008). People who have strong identification with a particular group are likely to internalize the group's collective goals (Turner, Hogg, Oakes, Reicher, & Wetherell, 1987), which may further motivate them to achieve the objectives through joint efforts. For example, empirical studies focusing on advantaged and disadvantaged groups in New Zealand (Thomas et al., 2020), HK's Occupy Central Movement (Chan, 2016), and neighborhood-based climate protection initiatives (Bamberg et al., 2015; Rees & Bamberg, 2014) have evidenced the role of social identification in predicting collective action. Therefore, the public's identification with their community, such as people from the same neighborhood that has been disadvantaged by pandemic mitigation measures, may share the same objective of changing the situation. The common goals may in turn stimulate them to join in collective action to realize their goals.

Efficacy, which refers to people's belief in their capability to achieve common goals, can also predict people's participation in collective action (van Zomeren et al., 2008). Empirical studies identified efficacy as a strong predictor of collective action in various contexts, such as collective/group efficacy in a neighborhood climate protection initiative (Rees & Bamberg, 2014), political efficacy in willingness to participate in a protest (Chan, 2016), and participative efficacy in community-based energy-saving actions (Bamberg et al., 2015). This study focuses on participative efficacy, or the belief that one can contribute to collective efforts of fulfilling public goods (van Zomeren, Saguy, & Schellhaas, 2013). Participative efficacy, compared with other types of efficacy, is more relevant to the present study, as it incorporates both individual and group capabilities in predicting collective action (Bamberg et al., 2015; van Zomeren et al., 2013). During the pandemic, people may be motivated to participate in online collective action by the belief in their contributions to the community's collective success in influencing relevant policies. Based on the above review, this study proposes:

H1:   (a) Informational injustice perception, (b) social identification, and (c) participative efficacy are positively related to IPOCA.

In line with SIMCA (van Zomeren et al., 2008) and prior empirical research (e.g., Chan, 2017; Rees & Bamberg, 2014), we expect that social identification exerts impact directly on collective action and indirectly through informational injustice perception and participative efficacy. Therefore, this study further proposes:

H2:   Social identification is positively related to (a) informational injustice perception and (b) participative efficacy.

Social Media Use and Three Sociopsychological Factors

Recent scholarship (e.g., Chan, 2017) has called for more research on how social media use is related to SIMCA, aiming to uncover how SIMCA functions and how the three sociopsychological factors are triggered in the social media environment. Scant studies have explored the relationship between social media use and informational injustice perception. However, a few studies have examined proxies or correlates of injustice perception in the political realm, such as political cynicism (Yamamoto & Kushin, 2014), political trust (Huang, 2018; Li & Chan, 2017), and political satisfaction (Xia & Shen, 2018). Yamamoto and Kushin (2014) identified that attention to campaign information on social media was positively correlated with political cynicism among American college students. Similarly, using online alternative media for information was negatively correlated with HK citizens' political satisfaction (Xia & Shen, 2018). In mainland China, Li and Chan (2017) uncovered that information seeking on social media negatively predicted people's political trust toward the government.

The impact of social media use on social identification is often mixed: Computer-mediated communication channels can enhance social identification through facilitating the formation of collective identities via open and free digital platforms and can also hinder the process because of anonymity and asynchronicity during collective action (Priante, Ehrenhard, van den Broek, & Need, 2018). The examinations of the relationship between social media use and efficacy also resulted in contradictory findings. Research found that the intensity of Weibo use did not influence internal or external efficacy (Chan, Wu, Hao, Xi, &

Jin, 2012), whereas general social media site use for news consumption was positively related to participative efficacy (Chan, 2017). Given these inconsistent findings, this study addresses:

RQ2:   How is attention to social media (gov) related to (a) informational injustice perception, (b) social identification, and (c) participative efficacy?

RQ3:   How is attention to social media (nongov) related to (a) informational injustice perception, (b) social identification, and (c) participative efficacy?

Three Sociopsychological Factors as Mediators

Existing studies have identified that individual factors such as online public affairs discussion (Li & Chan, 2017), internal political efficacy (Chan, Chen, & Lee, 2017), and political affect (Gan, Lee, & Li, 2017) were influential in mediating the relationship between social media use and participation in online collective action in China. Nevertheless, the existing literature has yet to examine how the three group-based sociopsychological factors—informational injustice perception, social identification, and participative efficacy—mediate the relationship between social media use and online collective action.

Although scant studies have examined the mediating role of injustice perception in the relationship between social media use and participation in collective action, a growing body of scholarship has investigated proxies or correlates of injustice perception in the political realm, such as political trust (Li & Chan, 2017) and political satisfaction (Xia & Shen, 2018), in the above relationship in the Chinese context. However, these studies did not yield consistent results. Specifically, political trust did not mediate the relationship between information seeking on social media and online collective action in either mainland China or HK (Li & Chan, 2017). Nevertheless, using online alternative news media indirectly impacted citizens' protest participation through political dissatisfaction with HK's political system (Xia & Shen, 2018). In terms of identity and efficacy, Chan (2017) observed that while identity mediated the relationship between using online alternative media for news and protest intention, participative efficacy instead mediated the relationship between using social media for news and protest intention. Yet, given the lack of theoretical and empirical guidance on the mediating roles of informational injustice perception, social identification, and participative efficacy between social media use and online collective action, this study addresses:

RQ4:   To what extent does informational injustice perception mediate the relationship between (a) attention to social media (gov) and IPOCA and (b) attention to social media (nongov) and IPOCA?

RQ5:   To what extent does social identification mediate the relationship between (a) attention to social media (gov) and IPOCA and (b) attention to social media (nongov) and IPOCA?

RQ6:   To what extent does participative efficacy mediate the relationship between (a) attention to social media (gov) and IPOCA and (b) attention to social media (nongov) and IPOCA?

Method

Sampling

Cross-sectional data were collected through online self-administered questionnaires in the middle of April 2020 when the pandemic was largely under control (National Health Commission of the People's Republic of China [hereinafter "NHC"], 2020; Xinhua News Agency, 2020b) and lockdown measures were eased in China (Xinhua News Agency, 2020a). During this transition period from intensive pandemic mitigation to normal life, the Chinese public may evaluate the pandemic mitigation measures taken by the government and take online collective action if necessary (Wang & Hernández, 2020).

We recruited participants through a Web-based survey service (www.wjx.cn). The target population includes more than 2.6 million people from all provinces of mainland China. A large proportion of participants are in their 20s or 30s and come from metropolitan areas with relatively high educational levels (i.e., bachelor's or beyond). We restricted the age in our sample to be older than 18 and commissioned the firm to conduct a random selection of the sample from the target population. This survey service has been frequently used in studies of political communication involving social media use among the mainland Chinese population (e.g., Chan et al., 2012; Huang, 2018; Jia et al., 2019).

This study adopted a multistep approach to translating and assessing the questionnaire to ensure meaning equivalency and content validity (Behr & Shishido, 2016; Harkness, Villar, & Edwards, 2010; Willis, 2016). Two skilled English-Chinese translation practitioners (both with relevant postgraduate degrees) and one survey and subject expert were involved in the team-based production of translation. This process was helpful to identify problems that emerged in the initial versions of the questionnaire and to make corresponding adaptations. Using the method of retrospective cognitive interviewing, we recruited nine participants for a pretest followed by informed minor adjustments to the questionnaire (e.g., clearer wordings).

The final sample consists of 627 Chinese adults. Participants were young (ranged from 18 to 47 years old, $M = 30.62$, $SD = 7.71$), educated (70.7% with a bachelor's degree, followed by 14.4% an associate degree, and 10.0% a master's degree), and living relatively well-off lives, according to the latest data from the National Bureau of Statistics of China (2020; ranged from 13.7% earning less than 5,000 Chinese yuan [CNY] to 11% over 20,000 CNY; 55.2% were above 10,000 CNY). Extant research found that young participants with high educational attainment and good financial backgrounds in China were active in using social media for information and civic and political participation (Chan et al., 2012; Li & Chan, 2017; Wang & Shi, 2018; Zhang & Lin, 2014). The above data indicate that findings in this study are generated from qualified samples. Females comprised 50.9% of the sample.

Measurements

Attention to Social Media (Gov versus Nongov)

Following previous research (Yamamoto & Kushin, 2014), we measured both types of attention to social media with a general question asking participants how much attention they had been paying to social

media accounts administrated by the governmental and nongovernmental sectors, respectively, for information about the COVID-19 pandemic mitigation in China. We examined four common social media platforms in China: (1) "Sina Microblog," (2) "WeChat," (3) "Video-sharing platforms such as DouYin," and (4) "Online forums and discussion boards (e.g., Baidu Tieba or Douban)." Of note, online collective actions have occurred on these platforms in China (Xue & van Stekelenburg, 2018). Responses were on a 7-point Likert scale (1 = *no attention* and 7 = *a lot of attention*)*.* Higher average scores across items and platforms indicate more attention to social media (attention to social media [gov]: M = 4.74; SD = 1.13; α = .62; attention to social media [nongov]: M = 3.94; SD = 1.32; α = .74).

Informational Injustice Perception

Five items adopted from prior studies (Colquitt & Rodell, 2015; Khan, Quratulain, & Crawshaw, 2013) were used to measure informational injustice perception. Responses were on a 5-point Likert scale (1 = *to a very small extent* and 5 = *to a very large extent*). Sample items included "I think that the government has been candid in communication with local residents regarding the pandemic mitigation" and "I think that government has explained the decision-making procedures for the pandemic mitigation thoroughly to local residents." The items were reverse coded with higher average scores indicating higher levels of informational injustice perception (M = 1.98; SD = .64; α = .76).

Social Identification

We measured participants' social identification with five items adopted from previous studies (Falomir-Pichastor, Toscani, & Despointes, 2009; Thomas, McGarty, & Mavor, 2016). Responses were on a 6-point Likert scale (1 = *strongly disagree* and 6 = *strongly agree*). Sample items included "I am proud to be a member of my local community" and "I feel that I belong to my local community." Higher average scores indicate stronger social identification with the local community (M = 4.52; SD = .88; α = .84).

Participative Efficacy

Four items adopted from van Zomeren and colleagues (2013) were used to measure participative efficacy. Of note, this scale has been used in testing SIMCA in the Chinese context (see e.g., Chan, 2017). Responses were on a 7-point Likert scale (1 = *not at all* and 7 = *very much*). Sample items for the scale included "I believe that I, as an individual, can contribute greatly so that local residents, as a group, can influence the government on making more equal pandemic mitigation policies" and "I believe that I, as an individual, can contribute meaningfully so that local residents can achieve our common goal of influencing the government on making more equal pandemic mitigation policies." Higher average scores index higher levels of participative efficacy (M = 4.85; SD = 1.23; α = .86).

Intention to Participate in Online Collective Action (IPOCA)

Items from prior studies (Ji et al., 2017; Li & Chan, 2017) were adopted to measure IPOCA. Using a 10-point Likert scale (1 = *unlikely* and 10 = *very likely*), respondents were asked about their likelihood of participating in online collective action with higher average scores indicating stronger intentions. Sample

items included "Signing or sharing online petitions about the government pandemic mitigation policies" and "Being involved in the mobilization of online collective action regarding the government pandemic mitigation policies" (M = 5.76; SD = 2.07; α = .91).

Controls and Demographics

Demographics including sex, age, education, and monthly household income were controlled since they were related to participation in collective action (Chan, 2017; Li & Chan, 2017). In addition, the number of cases and the number of deaths in the participant's province at the end of the data collection period (April 19, 2020) were collected from the health commission of the province and controlled as covariates.

Results

Bivariate relationships among the six measures were examined based on the aggregated scale scores (see Table 1). Multiple regression analyses were conducted to answer RQ1a–b using IPOCA as the dependent variable in two steps. First, age, sex, education, income, the number of cases, and the number of deaths in the participant's province at the end of the data collection period (April 19, 2020) were entered into the first block as control variables. Second, attention to social media (gov) and attention to social media (nongov) were entered into the second block. Results showed that attention to social media significantly predicted IPOCA after controlling for the effects of covariates, ΔR^2 = .08; ΔF(2, 618) = 27.67; p < .001. Specifically, attention to social media (gov; β = .11; p = .007) and attention to social media (nongov; β = .23; p < .001) significantly predicted IPOCA. In addition, IPOCA significantly differed by age (β = −.16 , p < .001).

Table 1. Summary of Zero-Order Correlations Among Six Measures Using Composite Scale Scores.

	1	2	3	4	5	6
1. Attention to social media (gov)	–					
2. Attention to social media (nongov)	.37***	–				
3. Informational injustice perception	−.23***	-.05	–			
4. Social identification	.35***	.16***	−.39***	–		
5. Participative efficacy	.21***	.14***	−.38***	.49***	–	
6. IPOCA	.19***	.26***	−.14***	.28***	.29***	–

Note. ****p* <.001

The remaining hypotheses and research questions were examined simultaneously using structural equation modeling (SEM) in M*plus* version 8.0 (Muthén & Muthén, 2012–2018). All six scales were modeled as latent constructs measured by their respective observed items. The weighted least squares means- and variance-adjusted (WLSMV) estimation method was used for the analysis. A two-step approach to SEM (Anderson & Gerbing, 1988) was undertaken. The first step was to evaluate the relationship between latent and observed variables in an adequate measurement model of all latent variables. The second step involved the evaluation of the full SEM model focusing on the structural relationships among latent constructs. Following the convention (Hu & Bentler, 1999), model fit was evaluated based on comparative fit index (CFI), root mean

square error of approximation (RMSEA), and standardized root mean square residual (SRMR). The cutoff criteria of these fit indices for good model fit were: CFI ≥ .95; RMSEA ≤ .06; and SRMR ≤ .08.

Results from the first step showed that the measurement model with all six latent variables provided a good model fit, $\chi^2(390) = 1039.00$; $p < .001$; CFI = .96; RMSEA = .05 (.05, .06); SRMR = .04. Factor loadings of the latent variables ranged from .44 to .87, with an average of .71. The absolute estimates of correlations among the latent variables ranged from .16 to .64, and all but the correlation between informational injustice perception and attention to social media (nongov) were significant at .001 alpha level. In the second step, we fitted a full SEM model with the structural relationships depicted in Figure 1. In addition, age, sex, education, income, the number of cases, and the number of deaths were included as controlling variables. The full SEM model also yielded a good model fit, $\chi^2(567) = 1327.22$; $p < .001$; CFI = .95; RMSEA = .05 (.04, .05); SRMR = .06. Reported below and in Figure 1 are standardized path coefficients.
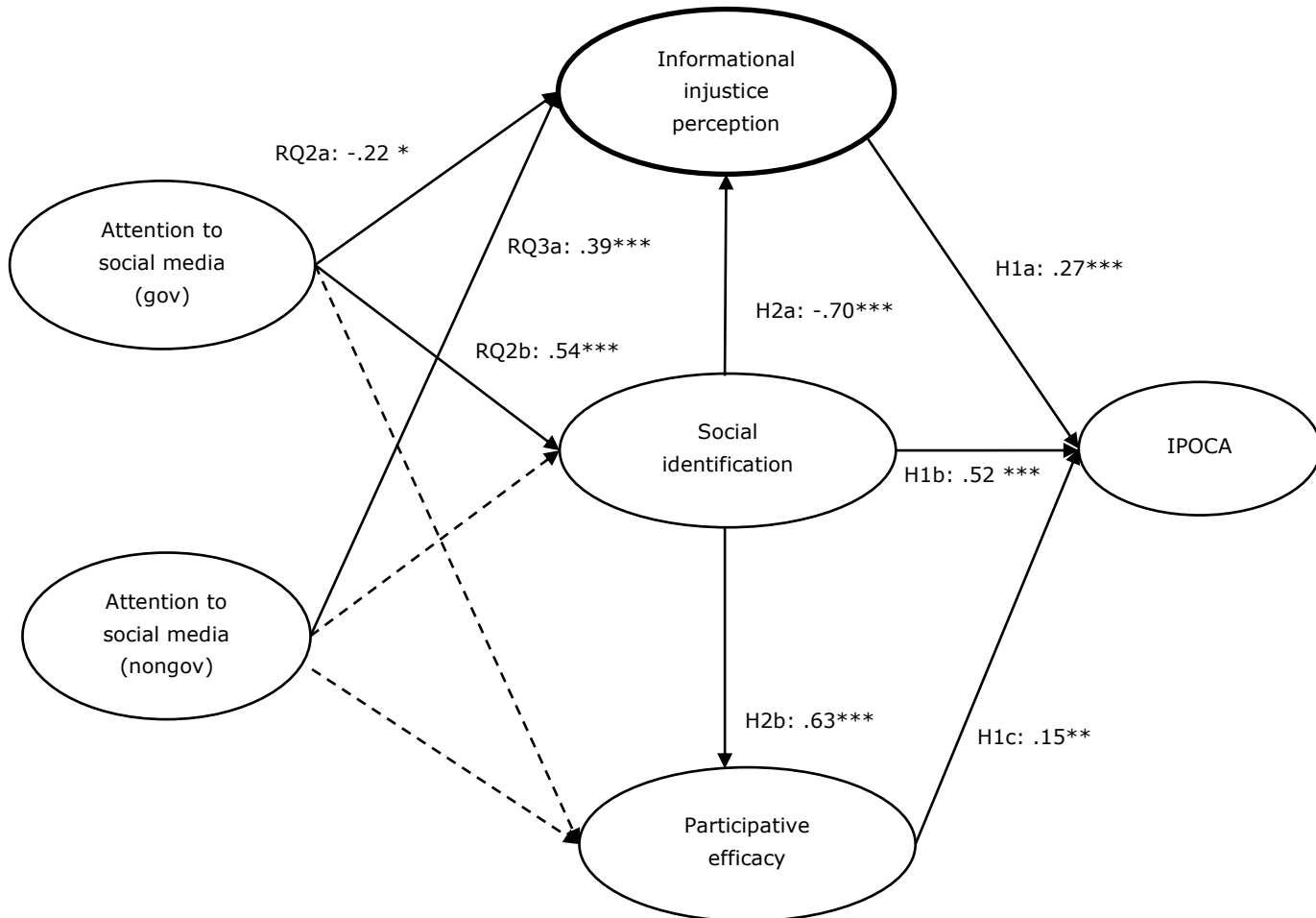
Figure 1. The structural model.

Note. $\chi^2(567) = 1327.22$; p < .001; CFI = .95; RMSEA = .05 (.04, .05); SRMR = .06.
* *p* < .05; ** *p* < .01; ***p* < .001.

The impact of the three sociopsychological factors in SIMCA on IPOCA was substantial. Specifically, informational injustice perception (β = .27; *p* < .01), social identification (β = .52; *p* < .001), and participative efficacy (β = .15; *p* < .05) were all positively associated with IPOCA. Thus, H1a, H1b, and H1c were supported.

About the relationships between social identification and the other two sociopsychological factors, contrary to H2a, social identification was negatively associated with informational injustice perception (β = -.70; *p* < .001). However, social identification was positively associated with participative efficacy (β = .63; *p* < .001). Hence, H2b was supported.

To answer RQ2a–c, results showed that attention to social media (gov) predicted informational injustice perception ($\beta = -.22$; $p < .05$) and social identification ($\beta = .54$; $p < .001$). However, attention to social media (gov) was not significantly associated with participative efficacy. To answer RQ3a–c, results showed that attention to social media (nongov) predicted informational injustice perception ($\beta = .39$; $p < .001$). However, attention to social media (nongov) was not significantly associated with either social identification or participative efficacy.

To explore the research questions (RQs4–6) about the mediating roles of the three sociopsychological factors, the indirect effects from attention to social media (gov and nongov, respectively) on IPOCA through these factors were estimated. A bootstrapping method was applied with 5,000 bootstrap samples, in which 1,859 samples were completed and used for analyzing the indirect effects. The indirect effect of attention to social media (gov) on IPOCA through social identification was significantly estimated at .282, 95% CI [.006, .885]. Other indirect effects were not significant.

Conclusion and Discussion

This study examines the direct and indirect impacts of attention to social media on IPOCA in the context of China's COVID-19 pandemic mitigation. Overall, in terms of direct effects, both attention to social media (gov) and attention to social media (nongov) directly predicted IPOCA. The indirect effect of attention to social media (gov) on IPOCA was significantly mediated by social identification. Other indirect effects were not significant. Several interesting patterns about the role of social media in fostering collective action and the mechanisms that mediate social media use and collective action in China found in this study were discussed in more detail below.

The finding that both attention to social media (gov) and attention to social media (nongov) positively predicted IPOCA evidenced the impact of social media use on collective action in China. This finding echoed existing literature on the positive effects of informational uses of social media on collective action, including those carried out online, in not only Western countries (see Skoric et al., 2016 for a review) but also Confucian Asia inclusive of China (see Skoric, Zhu, & Pang, 2016 for a review). Although the social media accounts in China-based social media platforms are of diverse natures (e.g., the top-down nature of the social media accounts of the governmental sectors; Jia et al., 2019, and the bottom-up nature of those of the nongovernmental sectors; Tong & Lei, 2013; Wang & Shi, 2018), our finding indicated that their impact on IPOCA are not distinctive from each other. The possible reason might be attributed to the fact that people can be exposed to conflicting information about political and public affairs with their interests involved circulated on social media (Brundidge, 2010; Kim, 2011). During the pandemic, attention to social media may result in consuming conflicting information about the government's measures to mitigate the pandemic, such as governmental policies and instructions and negative opinions toward the governmental mitigation measures (Han et al., 2020; Liao et al., 2020). The diverse and conflicting content may increase users' political interests and civic virtue (e.g., internalizing the obligation to pursue public goods; Wang & Shi, 2018) and prompt them to engage in political expression and discussions (Skoric, Zhu, & Pang, 2016). These conditions may facilitate their intention to participate in collective action (Scheufele, Nisbet, Brossard, & Nisbet, 2004; Skoric et al., 2016).

The above reasons may also explain the indirect relationship between attention to social media (gov) and IPOCA through social identification. Although attending to the government accounts for the pandemic mitigation information, the public was not immune to other conflicting information circulated online, which might motivate their identification with in-group members (e.g., disadvantaged groups) leading to their IPOCA to better the situation.

But we still urge studies on the political implications of social media use to differentiate the social media accounts of diverse natures to more sufficiently understand the mechanisms between social media use and collective action. Our study found that although both attention to social media (gov) and attention to social media (nongov) significantly predicted informational injustice perception, the correlations were in opposite directions. Studies showed that during the pandemic, accounts of China's governmental sectors mainly posted information about situation updates for COVID-19 and corresponding policies, guidelines, and official actions, while posts on nongovernmental sectors' accounts focused more on showing empathy to the affected people, blaming irresponsible organizations, and expressing worries about the risk (Han et al., 2020; Liao et al., 2020). Accordingly, attention to social media (gov) may result in the positive evaluation of the government communications about the pandemic mitigation, while attention to social media (nongov) may increase the perception of unfair government communications.

One more finding on the mechanisms between social media use and collective action that deserves attention is participative efficacy. Our study found that neither attention to social media (gov) nor attention to social media (nongov) was significantly associated with participative efficacy. This finding is contrary to those observed in Chan (2017), which was conducted in HK. A possible explanation is that although people turned to social media for information concerning the government's pandemic mitigation measures, they may not get access to those about civic mobilization (e.g., channels and sites of civic activities), which are typically censored on social media sites in mainland China (King et al., 2013; MacKinnon, 2012). Accordingly, social media users may be short of opportunities to develop political knowledge or engage in political discussion (Chan et al., 2012), which are necessary to amplify users' self-competence in contributing to the collective efforts of changing the current situation.

Besides the above nuanced understanding of the role of social media use in collective action and the mechanisms in between, our study also found interesting patterns about the function of SIMCA (van Zomeren et al., 2008) in the context of China. Our study evidenced the robustness of SIMCA in a non-Western context by showing that the three key sociopsychological factors all positively predicted IPOCA. Specifically, consistent with findings in, for example, Lee and colleagues (2017) and Tee and colleagues (2017), informational injustice perception positively predicted IPOCA. It might be explained that the appraisal of the government's inadequate justifications of the mitigation measures worsened the public's communal relationship with the government (Kim, 2009) or induced the public's anger toward the government (Tee et al., 2017), which stimulated them to turn to online collective action to better the situation. The positive relationship between social identification and IPOCA also coincides with extant findings (e.g., Chan, 2016; Thomas et al., 2020). A possible explanation could be that, given the convenience brought by social media platforms, people developed a sense of belonging to online communities (e.g., disadvantaged groups) sharing the same objectives, which motivated them to realize their joint goals (Wang & Shi, 2018). Furthermore, participative efficacy had a positive correlation with

IPOCA, coinciding with extant studies (e.g., Bamberg et al., 2015; van Zomeren et al., 2013). The plausible reasons may be that people were self-interested and self-motivated instead of relying on others as free riders in engaging in online collective action (van Zomeren et al., 2013). When people were experiencing the pandemic mitigation measures in person, their well-being, especially health, may not be adequately protected if they put sole hope on others to take action.

Interestingly, contrary to the assumption of SIMCA, this study found that social identification negatively predicted informational injustice perception. This may result from the influence of geographic communities (Mei, 2020; Xu, Perkins, & Chow, 2010) on the formation of collective identities, especially during the pandemic. The time when we collected the survey data witnessed the positive outcomes of China's pandemic mitigation (NHC, 2020). The collective objective of controlling the pandemic shared within the geographic communities may motivate members to positively evaluate the government's justifications of the mitigation measures, such as community lockdowns.

Overall, this study has several theoretical contributions. First, this study considers the complexities of the nature of social media accounts in China and once again confirms the political implications of social media use in China (Skoric, Zhu, & Pang, 2016). Consistent with Boulianne's (2020) meta-analysis, this study offers another piece of evidence that the positive relationship between digital media use and participation in collective action holds true in both Western and non-Western contexts. Second, using the theory of SIMCA (van Zomeren et al., 2008), this study explains the mechanisms of IPOCA in the social media environment in China by confirming the mediating role of social identification between attention to social media (gov) and IPOCA. This study also illuminates the limitations of attention to social media in fostering participative efficacy and the paradoxical relationship between attention to social media accounts of different natures and informational injustice perception in China.

Limitations and Directions for Future Research

Several limitations of this research and future research agendas should be addressed. First, the findings of this study were based on cross-sectional data. Although the results provide valuable insights into the effects of attention to social media on IPOCA and the underlying mechanisms, inferences of the directionality of the relationships are limited. Future research using social network analysis and content analysis could offer a more nuanced understanding of the political implications of social media in China.

Second, this study tested only the role of informational injustice perception in SIMCA and its relationship with social media use. Future research is needed to test the feasibility of distributive, procedural, and interpersonal injustice perceptions in the model and their respective relationships with social media use. It can further expand our understanding of the function of SIMCA in the social media environment.

Third, this study allowed flexibility in participants' interpretations of the local community considering that China's large-scale population mobility and migration (Yang, Gao, Zhao, Hao, & Xie, 2020) may disrupt the physical sense of community. People may interpret local community physically (e.g., talking to neighbors in person) or digitally (e.g., being involved in a neighborhood WeChat group), and thus may

have a different sense of the scope of a local community. Future research can further refine the measurements of social identification in China.

Fourth, it would be intriguing to further explore the direct and indirect effects of attention to social media on actual participation behaviors regarding online collective action. Findings can further illuminate the mechanisms of online collective action in the social media environment.

Fifth, the research findings of this study are restricted by the target population provided by the commissioned survey service (www.wjx.cn). Future research could consider testing the hypothesized models in a more diverse population in mainland China, which would improve the generalizability of findings and push forward the academic understanding of the interplay between social media use and collective action in China.

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