Online Collective Behaviors in China: Dimensions and Motivations

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Despite the rising prevalence of online collective behaviors in Mainland China, there is a dearth of research on their categorization and underlying motivations. To fill this gap, we applied grounded theory to identify the major categories of online collective behaviors in China, and conducted a survey study to understand their underlying motivations. Results show Chinese online collective behaviors may take the form of hard, violent confrontations (e.g., burst-the-bar attacks), or soft actions (e.g., discussions and voting). In addition, some of these behaviors are geared toward restoration of justice in the social, moral, and political domains (justice-driven behaviors). Others are directed toward sanctioning counter-normative behaviors, or "getting even" with aggression against the ingroup (intolerance-motivated behaviors). Individuals who intend to participate in justice-driven online collective behaviors perceive the social problems in China to be serious and to need to be addressed collectively. In contrast, individuals who participate in intolerance-motivated online collective behaviors are those who experience social estrangement. The intention to engage in both types of online collective behaviors increases with the amount of offline social influence.

Online collective behaviors refer to the responses of a collection of Internet users to a specific social event to bring the development of the event into accord with their expectations. These behaviors are considered a form of collective behaviors because they typically involve convergent effort from a large collection of individuals (albeit loosely organized) to produce a certain intended effect. According to this definition, online collective behaviors do not need to be highly organized (some online collective behaviors are spontaneous responses to a triggering event by unconnected Internet users, or spontaneous responses to other Internet users' reactions to the event). In addition, these behaviors may or may not involve an ideology.

Large-scale online collective behaviors occur frequently in China (Sullivan, 2013; Yang, 2009a, 2012). For example, in 2006, a short video was posted online, showing a Chinese woman wearing a pair of elegant stilettos holding a cute kitten. Then, the women laid the kitten on the ground, aimed the tip of her high heel toward the head of the kitten, and stomped it to death. Within days, thousands of Chinese online users voluntarily collaborated to search the identity of the woman. They looked for cues in the video, discussed their investigations, and publicized their findings in online forums. After a week, personal information about the woman, including her home address, cell phone number, and even personal identification number, was exposed online. Eventually, the woman was forced to leave her job and relocate to another city.

The objective of the present research is to identify the major forms and triggers of online collective behaviors in Mainland China, the different motivations behind participation in these behaviors, and the psychological characteristics of Chinese Internet users who engage in different types of online collective behaviors. Understanding the forms, triggers, motivations, and predictors of online collective behaviors in China is important for two reasons. First, China has the largest online population (420 million) in the world (Chinese Internet Network Information Center, 2012). Second, the political and cultural contexts of online collective behaviors in China are unique. The post-Mao reforms through market opening have resulted in rapid social and economic changes, including relaxation of restrictions on rural–urban migration, increased demand for labor mobility, more uneven distribution of wealth across regions, social class, and ethnic lines (Perry & Selden, 2010). Nonetheless, despite these developments, China's political system has remained relatively unchanged. These transformations, together with the nonresponsiveness of China's political institutions to popular dissent, together form the context of the alarming rate of increase in popular dissent resistance by ordinary people (Keidel, 2006; Pei, 2010). The most common form of resistance in China "seeks redress of routine instances of injustice for which victims hold the government and its agents responsible" (Pei, 2010, p. 37), and the Internet is playing an increasingly important role in evoking and propagating these incidents (Jiang, 2012; Yang, 2009a, 2012; Zheng & Zhang, 2012). Thus, in the Chinese

context, most online collective behaviors are not purposely directed to improve group status, power, or influence. Instead, oftentimes, online collective behaviors are expressions of the Internet users' justice values or emotions. They often occur when Internet users learn about a certain triggering event and feel that they need to respond to it through a variety of actions to express their opinions, emotions, and outcome expectations of the event and produce a certain intended effect on others.

In comparison, collective actions in Western democracies, instead of seeking redress of routine grievances, are often directed toward improving the welfare of certain groups (Wright, Taylor, & Moghaddam, 1990; van Zomeren & Iyer, 2009). Typically, in Western democracies, a collective action is an ideologically driven long-term campaign with a clear objective (McGarty, Bliuc, Thomas, & Bongiorno, 2009). Several typical examples of collective actions are the labor and feminist movements (Kelly & Breinlinger, 1996), the gay movement (Simon et al., 1998; Stürmer & Simon, 2004), and the farmers' protest in the Netherlands (de Weerd & Klandermans, 1999). Therefore, research on Chinese online collective behaviors can draw attention to a broader range of online collective behaviors and hence help to extend existing Western theories of collective actions.

Several studies have been conducted to understand online collective behaviors in China (e.g., Herold, 2009; Mou, Atkin, & Fu, 2011; Tong & Lei, 2010; Yang, 2009a; Zheng & Zhang, 2012). However, these studies tend to focus on political and democracy-related events, leaving other types of events overlooked. Therefore, in the present study, we aim to identify the major types of online collective behaviors in China and investigate their underlying motivations. Our research aims to broaden our analysis of collective behaviors to those outside Western democracies and to deepen our understanding of social psychology of collective behaviors.

Forms of Online Collective Behaviors in China

In China, online collective behaviors can be nonviolent or violent. Nonviolent actions, which are often referred to as soft actions (Brunsting & Postmes, 2002), may take the form of massive online discussions on controversial social and political issues (Zheng & Zhang, 2012) or online petitions or voting. An example is the massive online discussions of the possible cover-up of the causes of a deadly high-speed train crash, which was accompanied by an online petition for thorough investigation into the cause of the crash.

Violent, confrontational online collective behaviors, which have been referred to as hard actions (Brunsting & Postmes, 2002), may take different forms. A prominent form of hard actions in China, which is rarely observed in other countries, is Human Flesh Search (ren rou sou suo; Herold, 2011). Human Flesh Search is different from ordinary online search where software searches information in

existing databases. Human Flesh Search typically starts with a post on a popular online forum about the questionable behavior of an unknown individual and a call for collaborative search among online users to identify the individual (Wang et al., 2010), as the example of "kitten killer" mentioned earlier. Over the years, many individuals have been exposed by Human Flesh Search, including a wife who had an affair through online gaming (French, 2006), a foreigner who posted his sexual experiences in Shanghai (Soong, 2006), and a teenager who complained about not being able to play online games due to the national mourning for earthquake victims in Sichuan (Qiu, 2008). Human Flesh Search clearly violates individual privacy rights. However, individual privacy is not strongly emphasized and protected in China (Chao, 2011). Chinese Internet users often use Human Flesh Search as a means to bring retribution to corrupt government officials or immoral individuals (Fletcher, 2008; Guang & Zechao, 2010; Wang et al., 2010; Yuan, 2009).

Triggers of Online Collective Behaviors in China

Scholars and the Chinese Communist Party (CCP) have carried out informal reviews of recent online collective behaviors (Deng, 2010; Li & Guo, 2012; Wei & Du, 2009; Xiao, Liu, & Tang, 2012). In an article written for an official news website of the CCP, Li and Guo (2012) mentioned that many online collective behaviors in China are extraordinary actions taken to draw attention to various social problems. Many of these problems involve social inequality, exploitation of powerless and marginal groups, and corruption and moral decadence of the rich and the powerful. Yang (2009a) proposed seven major categories of online activism in China, including popular nationalism, right defense, corruption and power abuse, environment, cultural contention, muckraking, and charity. Most of these categories aim to restore justice and punish immoral behavior. These observations resonate with past findings, which have shown that attitudes toward social and political issues, such as perceived injustice, could increase one's sympathy with a collective movement and enhance the potential for mobilization (Klandermans, 1984, 1997; Klandermans & Oegema, 1987). The feeling of discrepancy between one's expected status and real status or the sense of being deprived of something that one is entitled to, whether political, social, or economic, may lead to discontent and participation in collective action (Gurr, 1970; Runciman, 1966; Walker & Pettigrew, 1984; Wright, Taylor, & Moghaddam, 1990).

The lack of proper channels for public participation in policy-making and expression of grievance toward social change could be a contributor to the mass participation in online activism (Yang, 2009b). Tausch et al. (2011) found that when individuals feel that they lack the ability to change their existing status through normative actions, they may take nonnormative actions to address their concerns. Online collective behavior can be considered as a form of nonnormative

action for expressing social discontent. Thus, concerned Chinese online users may go online to address their discontent when they perceive low political and social efficacy in doing so through offline, official channels.

Although many online collective behaviors in China are responses to social and political injustices, some mass incidents seem senseless, sometimes driven merely by personal interest or rage (Herold, 2011). Poe (2011) proposed that the motivation for many online activities, such as posting a Wikipedia entry or uploading a YouTube video, is to show relevance and become relevant to others. It is possible that the pervasive loneliness and estrangement caused by rapid modernization in China (Tian, 2010) increase the likelihood of participation. Research has shown that loneliness, which could be a symptom of anomie, is associated with an unmet need for belonging (Baumeister & Leary, 1995; Mellor, Stokes, Firth, Hayashi, & Cummins, 2008), and lonely individuals tend to join group activities to satisfy their need to belong (Stark & Bainbridge, 1985). Thus, feelings of estrangement and loneliness could lead one to join online collective behaviors.

In summary, online collective behaviors in China could be driven by the motivation to restore justice in social, political, or moral arenas, or by the emotions associated with estrangement. Justice-driven online collective behaviors occur primarily because individuals feel that they are personally responsible for addressing the injustices in China, but that they have low political efficacy and feel each individual is powerless. Therefore, they rally for or provide support to peers who launch online campaigns to restore justice. Nonetheless, Chinese online users may also participate in online collective behaviors because they experience estrangement in their social life. They feel lonely and powerless as an individual and may participate in online collective behaviors to reduce their loneliness.

Psychological Predictors of Online Collective Behaviors in China

Drawing on our analysis of the major triggers and existing theories of collective actions, we explored four categories of psychological factors that may predict the intention to participate in online collective behaviors in China.

Social and Political Attitudes

If a major motivation behind the intention to participate in online collective behaviors is to seek redress of routine instances of injustice for which victims hold the government and its agents responsible, the intention to participate in justice-driven online collective behaviors should be related to the Internet users' social perceptions and political attitudes. Specifically, Internet users are more inclined to participate in this type of behaviors when they perceive that the social problems in China are severe (high awareness of the severity of social problems),

that these problems cannot be solved through official political channels (low political efficacy), and that the Internet users have the moral responsibility to address these issues through their own actions (high personal responsibility). In the current study, we measured these social and political attitudes and predicted that they would be associated with the intention to participate in justice-driven online collective behaviors.

Feelings of Estrangement

As mentioned earlier, participation in online collective behaviors could be a response to the pervasive loneliness and estrangement caused by rapid modernization in China. Indeed, past research has also shown that deindividuated individuals would loosen their self-awareness and follow group norm (Diener, Lusk, DeFour, & Flax, 1980; Reicher, Spears, & Postmes, 1995). Online communication is often depersonalized (Reicher, Spears, & Postmes, 1995), making individual differences such as social status or idiosyncratic characteristics less visible than they are in face-to-face interaction (Hiltz, Turoff, & Johnson, 1989; Jessup, Connolly, & Tansik, 1990; Kiesler, Siegel, & McGuire, 1984; Sproull & Kiesler, 1991). The depersonalization of online communication may facilitate participation in group behaviors. Furthermore, because people tend to follow the norms emerged during the group process rather than existing social conventions when they participate in collective action (Killian & Turner, 1972), it is likely that participants in online collective behaviors will exhibit extreme behaviors that violate social conventions.

Identification with Online Collective Activism

Aside from social and political attitudes, identification with online collective activism may also predict participation in justice-motivated online collective behaviors. Social identity theories emphasize the importance of collective identification in collective action participation (Klandermans, 1997). Research has shown that identification with a specific group or social category plays an important role in determining one's attitude toward in-group and out-group members (Tajfel, 1981; Tajfel & Turner, 1986). When individuals have a strong collective identity, they tend to participate in collective actions to improve the condition of their group (Cameron, 2004; Huddy, 2001; Kelly & Breinlinger, 1996; Simon et al., 1998; Stürmer, Simon, Loewy, & Jörger, 2003). Collective identity can be formed through frequent contacts with group members, positive emotional connection with group membership, and integration of group membership into self-identity (Ellemers, Kortekaas, & Ouwerkerk, 1999; Obst & White, 2005; Smith & Jackson, 1999; Tajfel & Turner, 1979). It can also be formed through shared opinions (Bliuc, McGarty, Reynolds, & Muntele, 2007). In this digital age, frequent use of the Internet and interaction with other online users may lead Internet users to

develop strong identification with the online community and identify themselves with online groups that share their opinions and beliefs. As a result, they may join collective actions launched by other Internet users.

Normative Influence

Finally, the intention to participate in an action is determined partly by the subjective norm (Ajzen, Fishbein, & Heilbroner, 1980). Research has shown that individuals often follow the actions of others in their group to attain approval of or acceptance by their group members (Cialdini & Goldstein, 2004; Kelman, 1958, 1974; Klandermans, 1997). When individuals perceive that the subjective norm of their group or their significant others favors their participation, they are more likely to participate in the collective action (Bagozzi & Lee, 2002; Dholakia, Bagozzi, & Pearo, 2004; Shen, Cheung, Lee, & Wang, 2007).

Given the dearth of empirical research on the types of online collective behaviors in China and their underlying motivations, we first conducted a pilot study to identify different types of online collective behaviors in China. Next, building on the results of the pilot study and the review of the pertinent literature described above, we conducted a survey to explore the psychological factors that predict the intentions to participate in different types of online collective behaviors in China.

Pilot Study

In a pilot study, we applied grounded theory (Glaser, 1978) to analyze online collective behaviors in China. Grounded theory is an inductive methodology for discovering themes or categories through qualitative analysis of data. It has been widely used as a theory generation approach in the social sciences. Instead of applying a selected theoretical framework to explain a phenomenon, grounded theory research usually starts with a general question. Next, empirical data are analyzed to identify recurrent themes and concepts. Grounded theory has been successfully applied to reveal forms of social capital in rural tribal India using interview data (Iyengar, 2012), to identify advocacy strategies of feminist movements in Peru from observational data (Coe, 2009), and to uncover frames used in the media to cover the recent Tea Party Movement (Boykoff & Laschever, 2011).

We compiled 70 occurrences of online collective behaviors voted by Internet users on popular Chinese websites (e.g., Mop.com, Sina.com, 163.com). These behaviors took place between 2006 and 2011 (see Appendix). Two coders randomly selected 10 behaviors and independently labeled each one. Next, the coders discussed the labels they generated and identified the emergent themes. These themes often referenced the events or issues that triggered the behaviors (e.g., corruption or international affairs), or the form of actions involved in the behaviors (e.g., massive online discussion or cyber attack). Then, the two coders labeled

Table 1. Triggers and Forms of Collective Behaviors in China

Triggers	
Justice-driven	Intolerance-motivated
Moral transgression	Deviant behaviors
Social inequality or economic exploitation	Intergroup conflicts
National politics	
Forms	
Soft actions	Hard actions
Massive online discussion	Human flesh search
Large-scale online petition and voting	Burst the bar and cyber attack

the remaining 60 behaviors and used the new data to update the list of themes. Finally, the two coders reviewed all the emergent themes and combined them into categories. A third independent coder reviewed the coding. Disagreements were discussed among the three coders and resolved.

Results

We identified five types of triggers of online collective behaviors in China, as well four major forms of these behaviors (see Table 1). In the following, we briefly describe these triggers and forms.

Triggers. Thirty online collective behaviors were triggered by incidents related to *moral transgression*. For example, in 2007, a young man was caught by a security camera slapping his dad and asking him to kneel down in front of a crowd. This incident outraged many Internet users and led to a massive online discussion. In another incident, the son of a senior government official hit two female students in a drunk driving accident and tried to escape arrest by shouting "Sue me if you dare, my dad is Li Gang." Within days, Internet users carried out a massive human flesh search and identified the offender.

Social inequality and economic exploitation was the trigger for seven incidents. For example, in 2011, fourteen workers of an electronics assembly factory committed suicide. This incident incited a massive online discussion about the heavy workload and poor living conditions of low-wage workers.

National politics was the trigger for five collective behaviors. Research has shown that Chinese citizens like to voice their opinions on various political events online (Black, n.d.; Downey, 2010; Herold, 2009; Jiang, 2012; Jin, 2008; Yang, 2003, 2009a; Zheng & Wu, 2005; Zhou, 2010). For example, a mass online protest and cyber attack occurred in 2010 in response to China's territorial dispute with Japan over the sovereignty of the Diaoyu Islands.

Fourteen online collective behaviors targeted at *deviant behaviors* (Jiang, 2012), including pornography, extramarital affairs, plagiarism, and other

outrageous acts that were beyond people's expectations. For example, in 2009, a young female college graduate passed out flyers in Shanghai looking for a boyfriend who had to meet extremely high standards. Thousands of Internet users created various jokes and distorted images to ridicule her behavior.

Finally, four incidents were triggered by *intergroup conflicts*. They involved Internet users who strongly identified with a group (e.g., fans of a music band or members of an online community). For example, in 2009, members of two popular online discussion forums launched burst-the-bar attacks against each other because one group suspected that the other group had disrupted its leader's online activities.

Forms. Twenty-six out of 70 online collective behaviors involved *Human Flesh Search* (Herold, 2011; Wang et al., 2010). As mentioned previously, Human Flesh Search is a common form of online collective behavior in China, although they have also been observed in other countries. It is a manhunt that is carried out by a large number of Internet users who collaborate to identify an unknown person and expose his or her personal information (such as e-mail, home address, and ID number) online. For example, in 2011, a young lady who claimed to hold a senior position in the Red Cross, showed off her luxurious lifestyle on her microblog. This caused Internet users to question the source of her income and the financial integrity of charitable organizations in China. Through a Human Flesh Search, Internet users exposed the history of how she became rich and her unusual relationships with several senior public officials. This incident has led to elevated distrust toward charities in China.

Thirty-six incidents of online collective behaviors involved massive online discussions (Zheng & Zhang, 2012). These discussions are usually about provocative political or social incidents. Internet users consider massive discussion as a means to make their voice heard by the authority (Zhou, 2011). For example, in 2011, a deadly high-speed train crash and the subsequent cover-up of its cause incited thousands of Internet users to discuss the cause of the accident and demand thorough investigations by the authority. Eventually, a comprehensive railway safety review was conducted, and quite a few technical and management failures were identified in the investigation.

Four of the 70 online collective behaviors are burst-the-bar and cyber attacks. "Burst-the-bar attack" refers to the act of repeatedly posting offensive or meaningless messages on an online forum to disrupt its administration. It is often accompanied by cyber attack, in which Internet users launch cyber attack software from their personal computers against rival websites. An example of burst-the-bar and cyber attack happened in 2010 in response to the offensive behaviors of some Korean pop fans at the World Expo in Shanghai (Key, 2010). As a retaliation, thousands of Internet users launched a burst-the-bar attack against popular online forums dedicated to Korean pop fans and collaboratively hacked a number of Korean websites.

Four incidents of collective behaviors took the form of large-scale online petition and voting. In this type of incidents, the Internet provides accessible and convenient outlets for Internet users to express their grievances (Jin, 2008). In one incident, thousands of small Chinese vendors petitioned online against Taobao's (an online marketplace) decision to raise its service fees.

To reduce the number of variables in our follow-up survey study, we categorized the above four forms of behaviors into soft and hard actions, according to the criteria proposed by Brunsting and Postmes (2002). Soft actions are nonviolent actions, including massive online discussion and petition and voting. Hard actions are confrontational and violent actions, including Human Flesh Search, and burst-the-bar and cyber attack.

In summary, the triggers for online collective behaviors in China include incidents involving injustice in the moral, social, and political domains, or deviant behaviors and intergroup conflicts. Collective behaviors could take the form of hard, violent confrontations (e.g., burst-the-bar attacks), or soft actions (e.g., discussions and voting).

Main Study

Based on the pilot study results and past theories, we designed and conducted a survey study to examine the psychological factors that predict the participation in different types of online collective behaviors in China.

Method

Participants and procedure. We posted links to our online survey on popular forums and social networking sites for a month. A total of 744 participants from Mainland China completed the survey. All participants gave their informed consent before they started the survey and were paid eight Chinese yuan (about US$1.33) for their participation. We estimated that the survey would take more than 20 minutes and therefore excluded data from respondents who completed the survey in less than 10 minutes. This left 631 participants, consisting of 357 men and 274 women, whose age ranged from 14 to 52 years ($M = 23.96$, $SD = 3.92$). About half of the participants were students (56.4%). The remaining participants came from a variety of professions, including IT, administration, education, management, sales, manufacturing, press, civil service.

Measures

Behavioral intentions. To measure the intention to participate in online collective behaviors, we asked participants to indicate on a 5-point scale (1 = *very*

unlikely, 5 = *very likely*) how likely they would participate in hard or soft actions in response to an event involving one of the five triggers (i.e., moral transgression, social inequality, national politics, deviant behaviors, and intergroup conflicts). This resulted in 10 items (2 actions × 5 triggers). For example, the item that measured the motivation to participate in a hard action in response to moral injustice is "How likely would you be to participate in human flesh search or burst-the-bar and cyber attack in response to a moral transgression (e.g., the kitten abuse incident)?" The item that measured the motivation to respond with a soft action to deviant behaviors is "How likely would you be to participate in mass online discussion or voting and petition in response to deviant behaviors (e.g., the Jia Junpeng incident)?"

Predictors. Based on our literature review, we have identified four categories of psychological variables that may predict online collective behavior intention. They are (1) social and political attitudes, (2) identification with online collective activism, (3) feelings of estrangement, and (4) normative influence.

The category of social and political attitudes included three variables, each measured on a 5-point Likert scale (1 = *totally disagree*, 5 = *totally agree*). The first variable was *attitude toward social problems* (six items; $M = 4.07$, $SD = .58$, $\alpha = .76$), which measured how severe individuals think current social problems are. It was modified from the Attitude toward Environmental Problems Scale (Brunsting & Postmes, 2002), and consisted of items such as "I think our current social problems are shocking" and "The current social problem is not very frightening yet" (reverse scoring). The second variable was *personal responsibility* (four items; $M = 3.67$, $SD = .68$, $\alpha = .61$), which refers to the belief that people should be responsible for their own outcomes. A sample item is "Individuals should be responsible for their own misfortunes." The third variable was *personal political efficacy* (Kelly & Breinlinger, 1996; three items; $M = 2.91$, $SD = .92$, $\alpha = .64$), which measured the belief that an individual could influence political processes. Two sample items are "Every individual can have an impact on political process" and "One person's participation won't make any difference" (reverse scoring).

The category of identification with online collective activism included three variables, each measured on a 5-point Likert scale (1 = *totally disagree*, 5 = *totally agree*). The first variable was a two-item measure of *collectivist orientation* (Kelly & Breinlinger, 1996; $M = 3.59$, $SD = .79$, $\alpha = .63$). The two items were "Internet users should act as a group when facing problems" and "Problems will only be solved through collective behaviors." The second variable consisted of seven items that measured *collective relative deprivation* (Kelly & Breinlinger, 1996; $M = 3.21$, $SD = .51$, $\alpha = .71$). Sample items include "I feel that online collective behaviors encounter a lot of resistance in China" and "It makes me

feel angry that participants of online collective behaviors are in general hardly listened to compared with opponents of online collective behaviors." The third variable was *online collectivist identification* (Ellemers, Spears, & Doosje, 1997), which consisted of four items, including "I see myself as a member of the online collective activism" and "I am glad to belong to an online collective activist group" ($M = 3.18$, $SD = .67$, $\alpha = .81$).

The third category of predictors consisted of two measures of feelings of estrangement. The first measure was *deindividuation* ($M = 3.21$, $SD = .77$, $\alpha = .64$), modified based on Joinson's (2001) measure of deindividuation in computer-mediated communication. It includes items such as "When participating in online collective behaviors, I have concern over the way I behave and present myself in comparison to others" (reverse scoring); and "When participating in online collective behaviors, I would be thoughtful of how others think about me" (reverse scoring). The second measure was the UCLA Loneliness Scale (Russell, 1996; $M = 2.80$, $SD = .42$, $\alpha = .83$). It includes items such as "How often do you feel alone?" and "How often do you feel there are people you can talk to?" (reverse scoring). Participants responded to the two measures on a 4-point scale (1 = *strongly disagree*, 4 = *strongly agree*).

The last category of predictors consisted of two measures of *normative influence.* We asked participants to rate how their friends and family would react to their participation in collective behaviors on a 5-point scale (–2 = *very negative*, +2 = *very positive*) and how much they would value their opinions (–2 = *no value*, +2 = *very much value*). The product of the scores on the two items was used as a measure of *subjective norm* (Klandermans, 1984; $M = -.01$, $SD = .65$,). We also measured *peer influence* by asking participants how many friends would urge them to join an online collective behaviors by text messaging or phone calls on a 5-point scale (1 = *very few*, 5 = *a lot*; $M = 1.86$, $SD = .93$).

Control measures. We collected information about the following variables and included them as control measures in our analysis: (1) participant age, (2) gender, (3) educational level, (4) online activities, and (5) past experiences in online collective behaviors. To measure *online activities* ($M = 2.41$, $SD = .49$, $\alpha = .74$), we asked participants to report the number of years they had been using the Internet, the number of hours they spent on browsing the Internet every day, and how often they browsed forums, posted on forums, browsed blogs/microblogs, posted blogs/microblogs, and played online games on a 4-point scale (1 = *never*, 4 = *often*). We also asked the number of times participants had taken part in online collective behaviors ($M = 1.42$, $SD = .39$, $\alpha = .60$), including large-scale online discussion, human flesh search, burst-the-bar and cyber attack, and petition and voting, respectively, on a 4-point scale (1 = *never*, 2 = *only a few*, 3 = *some*, 4 = *almost all*).

Table 2. Pattern Matrix of Factor Analysis on the 10 Online Collective Behavioral Intention Items

	Factor 1: Justice-driven	Factor 2: Intolerance-motivated
Hard action for national politics	.892	
Soft action for national politics	.696	
Hard action for moral transgression	.741	
Soft action for moral transgression	.467	
Hard action for social inequality and economic exploitation	.795	
Soft action for social inequality and economic exploitation	.523	
Hard action for deviant behaviors		− .866
Soft action for deviant behaviors		− .859
Hard action for intergroup conflicts		− .432
Soft action for intergroup conflicts		− .413

Results and Discussion

Factor analysis. We computed Pearson correlations among the 10 online collective behavioral intention items and found that they were significantly correlated with each other ($ps < .01$). To reduce the 10 items to principal factors, we performed a maximum likelihood factor analysis with oblimin rotation on the 10 items. Two factors were extracted, which together accounted for 62.54% of the total variance. As shown in Table 2, the items which loaded on Factor 1 were the intentions to participate in actions (soft or hard) triggered by issues related to moral transgression, social inequality and national politics. Since these actions were related to justice concerns in the moral, social or political domains, we refer to them as justice-driven online collective behaviors. The items loaded on Factor 2 were intentions to participate in actions (soft or hard) to address group conflicts or ridicule deviant behaviors. Since these actions seem to be driven by lack of tolerance of outgroup or deviant behaviors, we refer to them as intolerance-motivated online collective behaviors. The factor analysis results suggest that there are coherent individual differences in the intentions to participate in justice-driven and intolerance motivated online collective behaviors. Therefore, we created two variables, intentions to participate in justice-driven online collective behaviors ($M = 3.23$, $SD = .92$), and intentions to participate in intolerance-motivated online collective behaviors ($M = 2.40$, $SD = .95$), by taking the sum of the items which loaded on the respective factors.

Hierarchical multiple regression. We used seemingly unrelated regression (SUR) to assess the effects of the predictors on the two behavioral intention measures. SUR solves a set of regression equations simultaneously and allows for error covariances among the equations (Ghosh & Sen, 1991; Parker & Dolich,

Table 3. Hierarchical Multiple Regression Analysis: Predicting Intentions to Participate in Justice-Driven and Intolerance-Motivated Collective Behaviors

	Predictors	Justice-driven	Intolerance-motivated
Control variables	Age	−.07	−.09[*]
	Gender	.06	.07
	Education level	−.02	.01
	Online activity	−.04	.002
	Past online collective behaviors	.25[***]	.23[***]
Social and political attitudes	Attitude toward social problems	.14[**]	−.18[***]
	Personal responsibility	.11[**]	.06
	Political efficacy	−.08[*]	−.13[***]
Identification with online collective activism	Collectivist orientation	.06	.02
	Collective relative deprivation	.05	.08
	Online collectivist identification	.14[**]	.02
Feelings of estrangement	Deindividuation	.05	.11[**]
	Loneliness	−.01	.12[**]
Normative influence	Subjective norm	.05	.002
	Peer influence	.10[**]	.22[***]
	R^2	.23	.24
	F	11.88[***]	13.12[***]

*Note. *p < .05 **p < .01 ***p < .001.*

1986; Zellner, 1962). It is appropriate to use SUR in the current study because the predictors in the regression equations for the two dependent measures were identical, and the two dependent measures were significantly correlated.

We entered the predictors in blocks (see Table 3). The control variables were entered in Block 1, followed by measures of social and political attitudes in Block 2, measures of identification with online collective activism and estrangement in Block 3, and measures of normative influence in Block 4. Consistent with previous findings that past behavior predicts future intentions (e.g., Bentler & Speckart, 1979; Mischel, 1968; Schlegel et al., 1977), participation in past online collective behaviors strongly predicted both intentions (justice-driven: $\beta = .33$, $p < .01$; intolerance-motivated: $\beta = .28$, $p < .01$).

The intention to engage in justice-driven online collective behaviors was stronger when the participants believed more strongly that the current social problems were serious ($\beta = .14$, $p < .01$), that people were personally responsible for their outcomes ($\beta = .11$, $p < .01$), and that individuals were powerless in political processes ($\beta = -.18$, $p < .05$). The intention was also stronger when

the participants identified themselves more strongly as online collective activists ($\beta = .14, p < .01$) and had more peer support for participating in online collective behaviors ($\beta = .10, p < .01$). The final model accounted for 23% of the variance of this dependent measure. In short, these results linked the intention to engage in justice-driven online collective behaviors to the perceptions that the current social problems are serious, that individuals need to take things into their own hands, and that an individual is powerless in political processes. Individuals who intended to engage in justice-driven online collective behaviors saw themselves as online activists and received peer support for the engaging in online collective behaviors.

Results show that the intention to engage in intolerance-motivated collective behaviors was stronger when the participants believed more strongly that the current social problems were not serious ($\beta = -.18, p < .001$) and the individual was powerless in the political process ($\beta = -.13, p < .001$). The intention to engage in intolerance-motivated online collective behaviors was also stronger when the participants experienced more deindividuation ($\beta = .11, p < .01$) and loneliness ($\beta = .12, p < .01$), and had more peer support for engaging in online collective behaviors ($\beta = .11, p < .001$). This model accounted for 24% of the variance in the intention to engage in intolerance-motivated online collective behaviors. These results linked the intention to engage in intolerance-motivated online collective behaviors to the feeling of anomie and estrangement. Individuals who intended to engage in this type of online collective behavior minimized the severity of social problems and believed that the individual is powerless in the political processes. They felt lonely, and tended to have low self-awareness and be influenced by their peers.

General Discussion

Our study shows that online collective behaviors in China can take the form of hard, violent attacks (e.g., burst-the-bar and cyber attack, and human flesh search) or soft actions (e.g., massive discussion, and large-scale petition and voting). Meanwhile, independent of their forms of expression, these behaviors can be organized into two broad categories based on their underlying motivation. One category is justice-driven behaviors. Individuals who participate in this type of behaviors want to restore justice in the social, moral, and political domains. This category of collective behavior resembles social movements that focus on political or social issues (Marx & McAdam, 1994). However, unlike social movements, justice-driven online collective behaviors in China are usually not organized sustainable efforts to promote long-term social change in accordance with a certain cause or ideology. Instead, they tend to end when the participants are satisfied with the handling of the specific triggering event. In addition, many social movements have a relatively stable group of supporters, and group identification is a major predictor of engagement in the movements. In contrast, supporters of

justice-driven online collective behaviors are typically ad hoc groups who act collectively to restore social justice. Once the specific issue of concern has been addressed, the group would dissolve.

Another category of online collective behaviors in China is driven by intolerance of outgroup or deviant behaviors. This category aims at retaliating the aggression against the in-group or sanctioning nonconventional, counter-normative behaviors. Like a crowd (Blumer, 1951), participants from different locations connect through shared emotions and engage in collective activities (Killian & Turner, 1972). However, unlike crowd behaviors, which are behaviors spontaneously displayed by unrelated individuals, some intolerance-motivated online collective behaviors, such as burst-the-bar attacks between fan clubs, may be well organized and planned activities.

Our multiple regression results clearly show that justice-driven and intolerance-motivated online collective behaviors have different motives. Individuals who participate in justice-driven online collective behaviors feel that the social problems in China are serious and need to be addressed urgently. They also feel that individuals have the personal responsibility to address these problems. Although they believe that the individual cannot make significant changes, they feel that individuals acting collectively can influence the society. These individuals identify themselves as online activists who hold critical views of social and political issues in China (Lei, 2011). Our result supports past findings that group identification could originate from shared opinions, and social identification with opinion-based groups can be a good predictor of political behavioral intentions (Bliuc, McGarty, Reynolds, & Muntele, 2007; McGarty, Bliuc, Thomas, & Bongiorno, 2009).

In contrast, individuals who participate in intolerance-motivated online collective behaviors are those who experience social estrangement. This is in line with previous research that crowd behavior is mainly driven by simple but exaggerated emotions (LeBon, 1895), and that more alienated individuals are more likely to form a crowd (Kornhauser, 1959). Cognitively, these participants minimize the severity of social problems and the political efficacy of the individual; emotionally, they feel lonely. They perceive their online behaviors to be anonymous and free from social monitoring. Such perceptions lower these individuals' self-awareness and increase their willingness to participate in hostile collective behaviors to punish counter-normative behaviors and retaliate against out-group attacks.

Comparing the motives for justice-driven and intolerance-motivated collective behaviors, it is important to highlight that attitude toward social and political issues *positively* predicts justice-driven behavioral intention but *negatively* predicts intolerance-motivated behavioral intention, suggesting that individuals who have strong concerns about social and political issues are *more* likely to participate in justice-driven behaviors and *less* likely to participate in intolerance-motivated

behaviors. Furthermore, online collectivist identification positively predicts justice-driven behavioral intention but not intolerance-motivated behavioral intention, indicating that individuals who more strongly identify with online collective activists are more likely to participate in justice-driven but not intolerance-motivated behaviors. Meanwhile, deindividuation and loneliness predict intolerance-motivated behavioral intention but not justice-driven behavioral intention. This suggests that individuals who are lonelier and more inclined to follow group norms and lose their self-awareness are more likely to participate in intolerance-motivated but not justice-driven behaviors. Finally, the intention to engage in both justice-driven and intolerance-motivated collective behaviors increases with the amount of offline peer influence, suggesting strong connection between online collective behaviors and offline activities.

Given the unique sociopolitical contexts of China and the characteristic aspects of online interactions, our research sheds new light on the social psychology of collective behaviors. The dominant social psychological theories of collective behaviors are developed based on observations of offline collective behaviors in Western democracies. Most of these behaviors are long-term, ideologically driven collective movements. While there have been many similar movements in China, including the Communist movement to establish the People's Republic of China, most online collective events that occurred in contemporary China have had a relatively short duration. Typically, some individuals gather together and engage in collective behaviors to express a shared demand or pursue a common interest in response to a catalytic triggering event (Li & Guo, 2012). While collective responses to catalytic events may be motivated by a certain ideology, identification with the cause of a specific movement may not be the major predictor of online collective behaviors in China. In addition, two kinds of ad hoc groups related to on-line collective behaviors have emerged. Members of one kind of ad hoc group are proud of their commitment to justice and willingness to join others to defend justice norms. They are like vigilantes who ally with their virtual comrades to take the law into their own hands. The other kind of ad hoc group consists of online gangs. They have little concern for social injustices or others' suffering. Feeling lonely and powerless, they assert themselves by engaging in collective behaviors to defend the interest of their gang or to punish behaviors that do not conform to the gang's preferences. Future research needs to take into account these two kinds of groups when studying online collective behaviors.

Our study has important policy implications. The Chinese government recently announced its plan to spend US$111.6 billion on its police forces in 2012 to deal with rising social unrest and the significant increase of collective events in China. Our study shows that justice-driven collective behaviors are not intended to overthrow the state. Unlike the collective protests that occurred during the Arab Spring, they are motivated by intentions to restore social justice. Thus, instead of suppressing this form of online collective behaviors categorically, the Chinese

government can make productive use of these behaviors by encouraging soft, nonconfrontational actions and discouraging hard, violent actions. In contrast, intolerance-motivated online collective behaviors could be symptoms of estrangement and anomie. As more people participate in them, anomie can become more widespread, hindering the development of a civil society. Thus, policies should be formulated to encourage integration of estranged individuals into the mainstream society and to improve education on proper Internet etiquette to reduce online conflicts.

The present research has several limitations. First, given the small sample size in the pilot study, the frequency of soft and hard behaviors and their triggers does not represent the probability of their occurrence. Future studies can use probability sampling and include a larger sample to obtain a more accurate picture of the overall distribution of different forms of behaviors and their triggers. In addition, we used a survey study to assess the underlying psychological determinants of participation in online collective behaviors. To further understand the motivations behind participation in different types of online collective behaviors, future research can employ qualitative methods such as interview or content analysis of Internet activities to obtain more representative behavioral data.

Our factor analysis successfully differentiated two types of online collective behaviors by their triggering events, but did not separate different forms of actions. Based on the types of triggering events, we partitioned the intention to participate in online collective behaviors into justice-driven behavioral intention and intolerance-motivated behavioral intention. Future research may try to differentiate online collective behaviors by the forms of responses to the triggering events (e.g., extreme behaviors such as Human Flesh Search) and explore the psychological factors associated with the likelihood of displaying different forms of online collective behaviors.[1]

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[1] We also ran separate regression models on the two forms of actions (soft and hard). The following variables predicted stronger intention to carry out both forms of actions: more frequent past online collective behaviors, lower political efficacy (negatively), and stronger peer support. In addition, stronger intentions to participate in hard actions were associated with younger age, lower personal responsibility, stronger online collectivist orientation, and stronger feeling of deindividuation.

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Appendix

Major online collective behaviors in China (2006–2011)

Form	Trigger	Event	English Translation	Year
Human Flesh Search	Moral transgression	虐猫事件	Kitten abuse	2006
	Moral transgression	铜须门事件	World of Warcraft Tongxu-gate	2006
	Moral transgression	流氓外教事件	Foreign teacher rogue incident	2006
	Moral transgression	史上最毒后妈事件	Evil Stepmother	2007
	Moral transgression	钱军打人事件	Qian Jun Beating incident	2007
	Moral transgression	华南虎事件	South China Tiger photo incident	2007
	Moral transgression	死亡博客事件	Death Blog incident	2008
	Moral transgression	香水门事件	Perfume Gate incident	2008
	Moral transgression	史上最牛房产局长	Real Estate Management Bureau incident	2008
	Moral transgression	杭州飙车案	Hangzhou car accident	2009
	Moral transgression	汶川地震辽宁女骂人事件	Liaoning Lady Curse after Wenchuan Earthquake	2009
	Moral transgression	"我爸爸是李刚"事件	"My father is Li Gang" Traffic Accident	2010
	Moral transgression	郭美美炫富	"Guo meimei" incident	2011
	Moral transgression	局长微博开房	Director scandals spread on microblogging	2011
	Moral transgression	卢美美事件	Lv MM incident	2011
	Moral transgression	李双江儿子开宝马打人事件	Li Shuangjiang's Son involved in road rage	2011
	National politics	藏独女生王千源事件	Harassment of Grace Wang	2008
	National politics	袭击金晶的藏独分子搜索事件	Jin Jing Olympic torch incident	2008
	Social inequality and economic exploitation	南京周久耕天价香烟案	Nanjing Cigarette incident	2009
	Deviant behaviors	张殊凡事件	Zhang Shufan incident	2007
	Deviant behaviors	贾君鹏你妈妈喊你回家吃饭	Jia Junpeng incident	2009
	Deviant behaviors	犀利哥	Brother Sharp	2010
	Deviant behaviors	快乐男声著姐	Liu Zhu	2010
	Deviant behaviors	小月月事件	Xiao Yueyue incident	2010
	Deviant behaviors	五道杠少年	Five-bar armband incident	2011
	Deviant behaviors	李国庆PK大摩女	DangDang CEO and "Morgan Lady" fighting on micro-blog	2011

Appendix. Continued

Form	Trigger	Event	English Translation	Year
Massive Online Discus- sion	Moral transgression	深圳海事局局长事件	Maritime Bureau secretary incident	2008
	Moral transgression	钱云会事件	Qian Yunhui incident	2010
	Moral transgression	随手拍照解救乞讨儿童	"Take a picture of begging children" movement	2011
	Moral transgression	失足妇女若小安事件	"The most educated prostitute" Ruo Xiaoan	2011
	Moral transgression	90后女生为苹果卖初夜	Teenage girl offers virginity in exchange for iPhone 4	2011
	Moral transgression	校车事件	School bus carnage	2011
	Moral transgression	苏紫紫事件	Su zizi incident	2011
	Moral transgression	公务员饿死九旬母	Civil servant leaves 90-year-old mother starve to death	2011
	Moral transgression	"京城四少"持枪火拼事件	Four Young Masters of Beijing	2011
	Moral transgression	"炫富女"尤美美事件	You MM show off	2011
	Moral transgression	志愿者高速路拦车救狗	Rescue dog from highway	2011
	Moral transgression	小悦悦惨遭两车碾压事件	Xiao Yueyue car accident	2011
	Moral transgression	洛阳"性奴"案	Luoyang's Sex Slave Case	2011
	National politics	钓鱼岛事件	Diaoyu Island dispute	2010
	Social inequality and economic exploitation	天价头事件	Barber Shop incident	2008
	Social inequality and economic exploitation	躲猫猫事件	Duo Maomao incident	2009
	Social inequality and economic exploitation	邓玉娇案	Deng Yujiao incident	2009
	Social inequality and economic exploitation	富士康跳楼事件	Foxconn suicide cluster	2010
	Social inequality and economic exploitation	宜黄 拆迁自焚 事件	Yihuang Self-immolation incident	2010
	Social inequality and economic exploitation	上海大火	2010 Shanghai Fire	2010
	Social inequality and economic exploitation	360 大战腾讯	360 vs. Tencent incident	2010
	Social inequality and economic exploitation	大量用户密码遭泄露	Password leak incident	2011
	Social inequality and economic exploitation	温州动车组事故	High-speed trains crash	2011
	Social inequality and economic exploitation	皮革奶事件	leather scraps mixed into raw milk	2011

Appendix. Continued

Form	Trigger	Event	English Translation	Year
	Social inequality and economic exploitation	达芬奇家居	DaVinci furniture scandal	2011
	Social inequality and economic exploitation	河南瘦肉精事件	Ractopamine incident	2011
	Social inequality and economic exploitation	中石油茅台酒	Expensive Maotai liquor	2011
	Social inequality and economic exploitation	故宫十重门	Forbidden city scandals	2011
	Social inequality and economic exploitation	夏俊峰刺城管案	Xiao Junfeng incident	2011
	Deviant behaviors	兽兽门	Shoushou Porn Video	2010
	Deviant behaviors	凤姐	Sister Feng	2010
	Deviant behaviors	闫凤娇	Ran Fengjiao	2010
	Deviant behaviors	非诚勿扰拜金女马诺	Material Lady Ma Nuo	2010
	Deviant behaviors	王功权微博私奔	Wang Gongquan elopement	2011
	Deviant behaviors	李阳家暴事件	Li Yang family violence	2011
	Deviant behaviors	高晓松入狱	Gao Xiaosong incident	2011
Burst the bar and cyber attacks	Intergroup Conflict	百度621事件	Baidu 621 Burst the bar and cyber attacks	2007
	Intergroup Conflict	11.28圣战	11.28 Jihad	2008
	Intergroup Conflict	"劲舞团"吧被爆	Audition Dance Battle Online Burst the bar and cyber attacks	2008
	Intergroup Conflict	6.9圣战	69 Jihad	2010
Large-scale online petition and voting	Moral transgression	清华"真维斯"楼事件	Jeanswest Building' naming controversy in Tsinghua University	2011
	National politics	莎朗·斯通被迫道歉	Sharon Stone apology	2008
	National politics	菲律宾人质事件	Hong Kong hostages killed in Philippines	2010
	Social inequality and economic exploitation	淘宝商城抗议	Taobao mall large-scale online petition and voting	2011