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The Impacts of Online Grassroots Criticism on Citizen Satisfaction With Government: An Inconsistent Mediation Model

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Criticism of government is prevalent on news websites all over the world, but not many studies have investigated its influence on citizen satisfaction with government. This study proposes an inconsistent mediation model, which theorizes impacts on citizen government satisfaction coming from both the content of criticism and the context within which the message is delivered. The model is contextualized to and tested in China where Internet censorship is heavy and widespread. Based on an experiment, this study finds that the context-based impact of online criticism leads to an increase in perceived freedom of speech and citizen satisfaction with government. The context-based effect largely offsets the negative influence incurred by the content of criticism, but the patterns are not consistent across news genres.

Keywords: grassroots criticism, censorship, citizen satisfaction with government, inconsistent mediation model, China

Political criticism is prevalent in user-generated comments on news websites around the world. Online criticism of government offers Internet users an opportunity to express their viewpoints and to shape other people’s attitudes. This is particularly important in authoritarian regimes where the Internet becomes the only avenue left for citizens to influence government (Etling, Faris, & Palfrey, 2010). Nevertheless, criticism entails discriminating among values, and “its essential work is denunciation” (Marx, 1844/2005, p. 177). Many governments around the world take measures of different forms to discourage and expunge criticism targeted at them. According to a report by Freedom House (2015), criticism of government online is censored in 47 countries around the world. For example, Singapore proscribes online messages that incite disaffection against the government (Attorney General’s Chambers, 2012). China punished government officials who openly spoke against the Party’s policies (Wong, 2015). Even in...
democracies, criticisms on a popular forum on Downing Street’s website were deleted by website’s moderators overnight (Wright, 2006).

The conceivable negative impacts of criticism of government usually have been used as justifications for censorship practices. One common concern is that criticism may challenge and weaken government’s authority and pose a threat to sociopolitical stability (e.g., Attorney General’s Chambers, 2012). Dissatisfaction with government may lead to social uprising or political apathy (e.g., McGowan, 2004; van Ryzin, 2007). Lower levels of satisfaction with government are also associated with low political trust and regime support (e.g., Cusack, 1999; Norris, 1999). However, these arguments largely ignore other possible impacts brought by the presence of criticism. Studies have suggested that criticism of government can work as a “safety valve” by venting grassroots frustrations, preventing citizens from taking to the street, and displaying a democratic image to the public (Jiang, 2010; R. MacKinnon, 2008; Moubayed, 2011). In addition, social influence of political criticism should be considered within broader social and political contexts (e.g., Khamis, Gold, & Vaughn, 2012; Wedeen, 2015). The impacts of political content could vary from place to place depending on the type of society in which one resides.

Therefore, the current study examined the content-based and context-based impacts of criticism on satisfaction with government in a single model. In the following sections, we discuss the two routes of influence and elaborate the context of our study. An experiment was conducted to test our model. Finally, the findings of the study are presented and discussed.

From Online Grassroots Criticism to Citizen Satisfaction With Government

“If politics is conflict, then criticism of actors and policies . . . is ubiquitous and inevitable” (A. H. Miller, Goldenberg, & Erbring, 1979, p. 69). Before the spread of the Internet, criticism of government was mainly produced by media professionals, and its influence on individuals’ political assessment was attributed to its large readership as well as the role the media played in shaping the dominant opinion (Robinson, 1976). Today, citizens share their own thoughts with numerous others, yet the impact of their voices depends on how they are perceived by the audiences.

Following the Aristotelian tradition, effects of criticism are contingent on four factors: the speaker, the audience, the message, and the context (Kuypers, 2009). In cyberspace, the speaker and the audiences are both anonymous, leaving the message and the context at the center of the current investigation. Context may refer to the physical or sociopolitical setting of the speech. Similarly, Kuypers (2009) argues that the impact of criticism is a synergic effect of the four factors, especially the content and the context. In media effects studies, whereas the influence of message has long been investigated, the impacts of context (especially sociopolitical context) have not been sufficiently addressed. A model that incorporates how both the content-based and context-based effects work to shape citizens’ evaluation of government is lacking.
Direct Influence of Online Criticism

The media may not tell you what to think, but they can determine what to think about (Cohen, 1963). The messages to which individuals are exposed become salient and accessible in the mind and thus alter individuals’ criteria by which governments, policies, and officials are judged (Iyengar & Kinder, 1987). People tend to use shortcuts to form their evaluations. Krosnick and Kinder (1990) found that when people were bombarded with foreign arms sales news, the best predictor of presidential evaluation shifted to attitudes toward foreign issues and away from concerns of domestic issues. Likewise, Bill Clinton’s support was reduced when racial concerns were activated in participants’ minds (Valentino, 1999).

Previous studies have suggested that exposure to online critical comments toward an object (e.g., a politician or a policy) may lead to negative evaluations. Baumgartner (2013) found that viewers of online animation clips that satirically criticized political figures rated public officials much lower than nonviewers. F. L. Lee (2014) revealed that exposure to criticism of candidates in gubernatorial elections made citizens’ attitudes toward the political system become negative. A study by Tang and Huhe (2014) found that exposure to political criticism on the Internet led to negative evaluations of government in China.

Although an increasing body of research has suggested that online grassroots comments change readers’ attitudes, there is no consensus over the mechanism through which the attitude transformation process occurs. For instance, E. J. Lee and Jang (2010) argued that online comments with criticism bias readers’ personal opinions in line with the perceptions of the public opinion climate. But E. J. Lee (2012) suggested that readers attributed opinions expressed in comments to news articles because no mediation effect was found through people’s opinion climate perception. Based on these findings, it seems reasonable to expect that exposure to online grassroots critical comments influences readers’ attitudes in a negative way.

Indirect Influence of Context

Context is not only a venue in which messages are conveyed, but also serves as an informative cue that determines interpretations of the messages. Dominguez (1994) argues that criticism of government must be understood in its own context that reveals how individuals relate to the political system. In authoritarian regimes, criticism of government online is sometimes used by authorities to present a democratic image to the public (Jiang, 2010). Understanding the context of criticism may give clues about how stakeholders interpret it and act on it because the context associated with a message may trigger a specific mindset or related considerations in processing information. For instance, Gerend and Sias (2009) showed that persuasive health messages increased intentions to get vaccinated when the messages were placed against a background in red rather than in gray: Red activated risk concerns through a socially constructed association with blood and danger.

The heuristic cues related to contextual factors could be activated unconsciously and hence influence judgment (Bargh, Chen, & Burrows, 1996). During the Iraq War, when media coverage of the
U.S. president turned negative and the majority of people turned against the war, Americans still evaluated him more favorably on foreign affairs than they did on domestic issues, along with an increased confidence in the government (Hetherington & Rudolph, 2008). Hetherington and Rudolph (2008) argued that it was the war context that boosted concerns about national security, which activated positive affect toward the government, the only capable actor in combating the international crisis. A study focusing on the contextual effects of bad economic situations found that high unemployment nationwide resulted in higher weight assigned to class-based considerations (e.g., class identity) for evaluations of presidential candidates than during times of low unemployment (Koch, 1994).

Political mindsets are socially constructed and learned through life experiences. People living in countries with clearly defined administrative responsibilities are more likely to assign credit or blame to presidents for economic conditions than those living in places where the government accountability is vague (Powell & Whitten, 1993). Nadeau and Lewis-Beck (2001) suggested that elected public officials are more likely to be punished for unsatisfactory socioeconomic situations than appointed public officials.

**Study Context: A Heavily Censored State**

To test the direct and contextual impacts of criticism of government, it is necessary to specify a sociopolitical context. The current study was contextualized in an authoritarian state: China.

How do Chinese citizens feel about their government? There are different answers to this question. One example comes from the most “shameless statements” made in the first half of 2012, as voted by Internet users (“The official inventory of shameless remarks in 2012,” 2012). The deputy of the Ministry of Foreign Affairs of China announced that China was leading in the world on citizen satisfaction with government (Guan, 2012). The news prompted widespread discussion, suspicion, and criticism on the Internet (Z. Zhang, 2012). A major newspaper of the Chinese Communist Party later acknowledged that local authorities made up fake statistics by discarding unsatisfactory answers (Chen, 2011). The manipulation of numbers attests to the fact that Chinese authorities care about citizens’ judgment of government performance.

The Internet provides a new venue for Chinese citizens to express their feelings toward the government. Grassroots criticism of the government has been selectively tolerated by the authorities as a barometer of public opinions (Wang & He, 2009). The tolerance is also considered as a means to prevent potential uprisings (R. MacKinnon, 2008) and to hold public officials accountable (Qiang, 2011). Yet, not all user-generated content can go through censorship. User-generated messages are hundreds times more likely to be deleted than content by news agencies (Song, Shen, Yao, & Wildman, 2013). It is common to see posts such as “I am checking if my message can pass the censorship” or “Where is the comment I just posted?” Despite their awareness of the censorship, citizens keep criticizing the government on the Internet and searching for the undefined boundaries between permissible and no-go areas (Spires, 2011). In a cyber culture filled with censorship (Bamman, O’Connor, & Smith, 2012), any loosening of censorship is likely to be perceived as an improvement from the standpoint of ordinary Internet users.
The association between government’s intentions of listening to the grassroots and good governance is not uncommon in the long history of Chinese politics. Conventionally, a governor who is willing to listen to the public is considered a benevolent dictator and receives public praise (F. Zhang & Sun, 2011). In modern times, the Chinese government is built on the notion of democratic centralism, a dominant political discourse promoted by the ruling party (Shi, 2008), arguing that good governance should derive political decisions from grassroots opinions selectively (Delmestro, 2009). Truex (2014) used an experiment to expose Chinese participants to a snapshot of the website of National People’s Congress that invited citizens to express their opinions to the government, and found that viewers exhibited higher satisfaction with the regime, policy, and public officials than those who did not see the website. In line with this reasoning, tolerance of critical comments then would be regarded as an indicator of good governance, fostering positive assessment of the authority.

Treating critical comments of government as content and the censored environment as context, in the current study, we tested a model that contained the two elements to explore the extent to which exposure to grassroots political criticism may influence an individual citizen’s satisfaction with the government. Based on the theoretical discussion and the elaboration of our study context, it is reasonable to assume that exposure to online grassroots criticism increases perceived freedom of speech and consequently satisfaction with the government, whereas the direct impact will be in the opposite direction: The exposure of grassroots criticism of the government will decrease satisfaction with the government. Therefore, two hypotheses were proposed.

\[ H1: \] Exposure to criticism of government will decrease citizen satisfaction with the government (content effect: direct route).

\[ H2: \] Exposure to criticism of government will lead to higher perceived freedom of speech and subsequently citizen satisfaction with the government (contextual effect: indirect route).

The theoretical model is illustrated in Figure 1.

\[ \text{Figure 1. An inconsistent mediation model: The case of China.} \]
Method

Stimuli

News Stories

To ensure the ecological validity of the experiment, we constructed four news stories that mimic typical Chinese news narratives. Two were positive stories praising government achievements, and the other two were negative news stories characterizing corrupted and incompetent government officials as a few “bad apples.” The positive news stories showed that the authoritarian media system is a tool used to educate the public and shape public opinion to legitimize party control (C. C. Lee, 2003), and the negative news stories were a reflection of the fact that, since the 1990s, Chinese news media have become commercialized and thus forced to sustain and expand their market shares by running muckraking stories to garner public attention (Stockmann, 2013).

To maintain external validity and avoid contamination from active memory, we asked a Chinese journalist experienced in reporting domestic political news to rewrite four pieces of news that had been released two years before the experiment. Each of the original stories produced many grassroots comments on the release day, but had not received much follow-up reporting after that. The rewritten stories maintained the core message, but the length and narrative structure were altered. As a result, each story was between 180 and 220 words long in two or three paragraphs. A photograph that had been attached to the original news posting was also placed under each recomposed news story.

Grassroots Criticism of Government

For each news story, two conditions were prepared: news only and news with users’ critical comments. In news with users’ critical comments, 10 user comments were harvested from the original news stories following each piece of news; 10 items were used based on humans’ limited capacity for short-term memory. According to G. Miller (1956), humans can remember five to nine pieces of information for a short period. More than nine items could cause people to experience “information overload,” undermining subsequent decision making. In the real scenario of news website browsing, individuals encounter a high quantity of information. To balance the external validity of the online reading experience with the internal validity of the experimental design, we used eight effective grassroots comments and two fillers that were irrelevant to the news (but commonly seen in online grassroots news comments), mimicking a slightly overloaded online information environment. Thus, there were 10 comments following each news story. In the news-only conditions, there were no comments following the news.

The layout of the news and comments page followed the template from NetEase.com, one of the major news aggregators in China that is best known for featuring critical grassroots voices. Other information that had been attached to the comments was kept the same across stories, including usernames and date/time of postings, and the numbers of “up votes” and “down votes” were set as zero to prevent confusion.
Pilot Study

The stimuli were pretested in a pilot study by 30 undergraduate students using a 5-point scale, including the slant of the stories (positive vs. negative) and the critical tone of each effective comment. The mean slant ratings of the two positive news stories were 4.50 (SD = 0.63) and 4.47 (SD = 0.63), respectively, and the ratings of the two negative news stories were 1.33 (SD = 0.55) and 1.37 (SD = 0.56), respectively, where 1 indicated very negative stories and 5 indicated very positive stories. The discontent expressed by the effective comments was also rated, reaching a mean score of 3.03 (SD = 0.77), where 1 indicated not discontented at all and 5 indicated extremely discontented.

Overall, the experiment was a 2 × 2 design (news only, news and critical comments; negative news stories, positive news stories), with four separate conditions, each consisting of two news stories.

Main Study

A Web-based experiment would have been ideal, but it was unrealistic to set up an experiment online with "sensitive" questions (e.g., citizen satisfaction with the government) in an authoritarian country with heavy Internet censorship (R. MacKinnon, 2008). The experimental stimuli and questionnaire were uploaded to a popular Chinese survey website, but the experiment materials were quickly removed by the website administrator. No explanations were given regarding the reason for deletion. We also considered using non-Chinese survey sites such as SurveyMonkey.com to host the experiment, but slow connection speed to an overseas website became a serious issue for our participants. Without a stable Web platform, it also was not possible to conduct the experiment in a computerized classroom setting. Finally, we decided to use a paper-and-pencil survey. We admit that the external validity of the experiment could be weakened using a paper-and-pencil survey, but we designed the layout of the experiment stimuli in such a way that they closely resembled a Web page (see Figure 2) to minimize the potential threat to experiment validity.

Participants

In total, 723 undergraduates (361 men, 362 women; mean age = 20.80 years, SD = 1.41) were recruited from a college town in southern China. Participants came from different provinces of China, and they had lived and studied in the college town for at least one year, with their disciplines ranging from liberal arts to science.
Figure 2. The layout of the stimuli. The stimuli were placed inside red frames. Other content on the news (left) and comments (right) pages was the same across conditions.

Procedure

In October 2013, the experiments were conducted in classrooms following lectures with the teachers’ permission. All students in the classrooms participated. It took one week to recruit all of the participants, and the randomization of all eight experimental conditions in every classroom helped eliminate the different time to participate effect across conditions. Each experiment lasted 30 minutes. Each student received an online-shopping e-voucher (RMB 20, about USD$3) in return. They were told that they would get a booklet with reading materials and a questionnaire for a study of college students’ online news reading. The five-page booklet with a consent form and instructions was then assigned randomly to the participants. Having signed the consent form, participants read a screenshot of a Web page featured as one of the four news stories, followed by comments or not (see Figure 2). After reading the materials, participants were asked to fill out a questionnaire. A debriefing was given at the end of the week, along with e-coupons sent to participants’ e-mail addresses.

Measures

Perceived Freedom of Speech

Press freedom and citizens’ rights in expression are two elements for freedom of speech. Two questions were used to measure the perceived freedom of speech: (1) “In your opinion, how free is it for
Internet users to express their views on the Internet?" \((M = 3.13, SD = 1.02)\) and (2) "In your opinion, how free is it for the media to publish news stories on the Internet?" \((M = 3.05, SD = 0.99)\), with 1 indicating not free at all and 5 indicating extremely free. The average of the two items formed the index of perceived freedom of speech \((r = .71, M = 3.09, SD = 0.93)\). To avoid unintended effects on participants’ answers to subsequent questions, we placed these questions at the end of the questionnaire, right before demographic questions, but after all other measures.

Citizen Satisfaction With Government

Citizen satisfaction with government solicits people’s subjective evaluation of public services. Previous studies have tended to use a single-item measure (James & Moseley, 2014), but the current study used two items to tap individuals’ satisfaction judgment. Participants indicated their agreement with two statements using a 5-point scale from 1 (extremely disagree) to 5 (extremely agree): (1) “I am satisfied with government performance” \((M = 2.50, SD = 0.86)\) and (2) “I am frustrated by the overall quality of public services” \((M = 3.36, SD = 0.88)\). The latter item was reverse-coded, and then the two were averaged to create a scale of citizen satisfaction with government \((r = .76, M = 2.57, SD = 0.82)\).

Control Variables

Previous studies have identified factors that relate to citizen satisfaction with government. It has been argued that political efficacy, measured by government responsiveness, is positively related to satisfaction judgment regarding government performance (DeHoog, Lowery, & Lyons, 1990). Thus, political efficacy was included as a control variable, following previous studies (A. Campbell, Gurin, & Miller, 1954), addressing it with two statements: (1) “Government officials do not care about what I am thinking about” \((M = 3.42, SD = 0.91)\) and “Government officials do not care about how citizens live their lives” \((M = 3.24, SD = 1.02)\). Both were rated on 5-point scales (1 indicates extremely disagree, 5 indicates extremely agree) and were reverse-coded; then, the average was created to measure political efficacy \((r = .72, M = 2.67, SD = 0.89)\).

In addition, political interest, demographics (age, gender, and household income), and media use were included as controls. Interest in politics was measured on a 5-point scale, with 1 indicating no interest and 5 indicating strong interest. Two measures relevant to consuming online news and comments were included. Participants were asked how many days on average they read online news \((M = 4.60, SD = 2.21)\) and online grassroots comments \((M = 2.74, SD = 2.08)\) in a week, both ranging from zero to seven days.

Results

Before testing the hypotheses, we examined the sample distribution across treatment and control conditions. The descriptive statistics of control variables are included in Table 1. One-way analyses of variance indicated no statistically significant difference among the four conditions (the negative news-only condition, the positive news-only condition, the negative news and comments condition, and the positive news and comments condition) in terms of age, \(F(3, 747) = 1.75, ns\); income, \(F(3, 720) = 0.00, ns\);
political interest, $F(3, 750) = 0.35$, ns; political efficacy, $F(3, 750) = 1.26$, ns; frequency of exposure to online news, $F(3, 750) = 0.01$, ns; and frequency of exposure to online comments, $F(3, 750) = 0.05$, ns.

### Table 1. Means and Standard Deviations of the Control Variables.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Negative news only</th>
<th>Negative news and comments</th>
<th>Positive news only</th>
<th>Positive news and comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demographics</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender, % female</td>
<td>50.30</td>
<td>50.40</td>
<td>49.20</td>
<td>51.00</td>
</tr>
<tr>
<td>Mean (SD) age (years)</td>
<td>20.76 (1.37)</td>
<td>20.89 (1.85)</td>
<td>20.50 (1.25)</td>
<td>20.75 (1.35)</td>
</tr>
<tr>
<td>Mean (SD) income$^a$</td>
<td>3.85 (1.94)</td>
<td>3.85 (1.96)</td>
<td>3.86 (1.89)</td>
<td>3.84 (1.91)</td>
</tr>
<tr>
<td>Political attitudes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean (SD) political efficacy$^b$</td>
<td>2.75 (0.85)</td>
<td>2.69 (0.86)</td>
<td>2.60 (0.86)</td>
<td>2.59 (0.99)</td>
</tr>
<tr>
<td>Mean (SD) political interest$^c$</td>
<td>2.60 (1.10)</td>
<td>2.66 (1.18)</td>
<td>2.71 (1.18)</td>
<td>2.61 (1.11)</td>
</tr>
<tr>
<td>Media use</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean (SD) exposure to online news (days)</td>
<td>4.58 (2.18)</td>
<td>4.62 (2.21)</td>
<td>4.60 (2.29)</td>
<td>4.59 (2.20)</td>
</tr>
<tr>
<td>Mean (SD) exposure to online criticism (days)</td>
<td>2.71 (2.11)</td>
<td>2.78 (2.13)</td>
<td>2.70 (2.16)</td>
<td>2.75 (2.00)</td>
</tr>
</tbody>
</table>

$^a$Rated on a 10-point scale (1=2000 RMB and below, 2=2001-4000 RMB, 3=4001-6000 RMB, 4=6001-8000 RMB, 5=8001-10000 RMB, 6=10001-15000 RMB, 7=15001-20000 RMB, 8=20001-40000 RMB, 9=40001-60000 RMB, 10=above 60000 RMB). $^b$Rated on a 5-point scale (1 = extremely disagree, 5 = extremely agree). $^c$Rated on a 5-point scale (1 = no interest, 5 = strong interest).

To test the proposed model, we used analysis of variance and a multiple-mediation macro produced by Preacher and Hayes (2008). The macro provided an omnibus test for direct, indirect, and total effects of the categorical independent variable as a set. Inference for indirect effect was based on bias-corrected bootstrap confidence intervals.

**Hypothesis Testing**

Hypotheses 1 and 2 proposed an inconsistent mediation model, with content- and context-based impacts on citizen satisfaction with government. Means and standard deviations are illustrated in Table 2.
Table 2. Means and Standard Deviations of the Key Variables.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Perceived freedom of speech</th>
<th>Citizen satisfaction with government</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Negative news and criticism</td>
<td>3.34</td>
<td>0.91</td>
</tr>
<tr>
<td>Negative news only</td>
<td>2.91</td>
<td>0.95</td>
</tr>
<tr>
<td>Positive news and criticism</td>
<td>3.14</td>
<td>0.84</td>
</tr>
<tr>
<td>Positive news only</td>
<td>2.72</td>
<td>0.93</td>
</tr>
</tbody>
</table>

As to Hypothesis 1, data were consistent with expectation (see Table 3). The direct impact of exposure to grassroots government criticism on citizen satisfaction with the government was statistically significant ($b = -.13, p < .001$). Thus, Hypothesis 1 was supported. It is possible that the statement “I’m satisfied with government performance” was more likely to encompass associations of free speech compared with the statement “I’m frustrated by the overall quality of public services.” Therefore, we tested the model with separate measures of citizen satisfaction. The results were consistent with what we found with a combined measure.

The data also concurred with the indirect path hypothesis. As Table 3 illustrates, the standardized regression coefficient for exposure to grassroots criticism of the government and perceived freedom of speech was statistically significant ($b = .21, p < .001$), as was the standardized regression coefficient between perceived freedom of speech and citizen satisfaction with the government ($b = .08, p < .05$). The standardized indirect effect was $.21 \times .08 = .02$. We formally tested the indirect effect with bootstrapping procedures for each of 10,000 bootstrapped samples, and the 95% confidence interval (CI) was computed by determining the indirect effects at the 2.5 and 97.5 percentiles. The bootstrapped indirect effect was .02, and the 95% CI ranged from .001 to .037. Thus, the indirect effect was statistically significant, and Hypothesis 2 was supported.
Table 3. Direct and Indirect Effects of Criticism Exposure on Citizen Satisfaction With Government.

<table>
<thead>
<tr>
<th>Effect</th>
<th>Combined news</th>
<th>Negative news</th>
<th>Positive news</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct and indirect effect</td>
<td>b (SE)</td>
<td>b (SE)</td>
<td>b (SE)</td>
</tr>
<tr>
<td>Criticism exposure → perception of free speech</td>
<td>.21 (.04)***</td>
<td>.24 (.05)***</td>
<td>.19 (.05)***</td>
</tr>
<tr>
<td>Perception of free speech → citizen satisfaction</td>
<td>.08 (.04)*</td>
<td>.13 (.05)*</td>
<td>.04 (.06)</td>
</tr>
<tr>
<td>Criticism exposure → citizen satisfaction</td>
<td>-.13 (.04)***</td>
<td>-.08 (.05)</td>
<td>-.18 (.05)***</td>
</tr>
<tr>
<td>Ratio of indirect to total effect (%)</td>
<td>11.5</td>
<td>27.2</td>
<td>n.a.</td>
</tr>
</tbody>
</table>

Controls

<table>
<thead>
<tr>
<th>Effect</th>
<th>Combined news</th>
<th>Negative news</th>
<th>Positive news</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>.06 (.04)</td>
<td>.06 (.05)</td>
<td>.06 (.05)</td>
</tr>
<tr>
<td>Age</td>
<td>.04 (.04)</td>
<td>.04 (.05)</td>
<td>.05 (.06)</td>
</tr>
<tr>
<td>Income</td>
<td>.01 (.04)</td>
<td>.01 (.05)</td>
<td>.01 (.05)</td>
</tr>
<tr>
<td>Political interest</td>
<td>-.12 (.04)**</td>
<td>-.12 (.05)*</td>
<td>-.11 (.05)*</td>
</tr>
<tr>
<td>Political efficacy</td>
<td>.14 (.04)**</td>
<td>.14 (.05)**</td>
<td>.15 (.05)**</td>
</tr>
<tr>
<td>Online news</td>
<td>.03 (.04)</td>
<td>.03 (.05)</td>
<td>.03 (.06)</td>
</tr>
<tr>
<td>Online grassroots comments</td>
<td>-.14 (.04)***</td>
<td>-.13 (.06)*</td>
<td>-.14 (.06)*</td>
</tr>
</tbody>
</table>

$R^2$ (%)       8.0*** 9.0*** 8.7***  
n $723$ $358$ $365$

Note. Criticism exposure: 1 = news, 2 = news and criticism. *$p < .05$. **$p < .01$. ***$p < .001$. n.a. is not applicable. Because the indirect path is not significant, there is no ratio of indirect to total effect.

There are different ways to calculate effect sizes for mediation analysis (Preacher & Kelly, 2011). We used the mediation ratio, which is defined as the percentage of the total effect accounted for by the indirect effect (Alwin & Hauser, 1975). The relationship between the indirect effect ($ab$), direct effect ($c'$), and total effect ($ab + c'$) is illustrated in Figure 1. When the mediation is inconsistent, as what the data revealed in current study, the direct effect ($c'$) is larger than the total effect ($ab + c'$) and the mediator acts as a suppressor that reduces the total effect from the direct effect (D. P. MacKinnon, Krull, & Lockwood, 2000). In this case, the absolute value of the direct effect was taken before calculating the effect size to avoid proportions greater than 1. Using the following formula, we found that the mediator perceived freedom of speech accounted for 11.4% of the total effect. Moreover, perceived freedom of speech weakened the negative impact of exposure to grassroots criticism on citizen satisfaction with government.
\[ R_m = \frac{ab}{ab+|c'|} \]

Note: \( R_m \) is mediation ratio, which is the ratio of indirect to total effect of the mediation effect.

Overall, participants exposed to both news and critical grassroots comments were less satisfied with the government \((M = 2.48, SD = 0.83)\) compared with participants exposed to news only \((M = 2.69, SD = 0.82)\). The total effect of the exposure to online grassroots criticism of the government on citizen satisfaction judgment then was negative.

**Follow-up Analyses**

Although results from the full sample model lent much evidence to the hypotheses, it is possible that these “effects” were derived from the perception of public opinion climate, indicated by a perceived (dis)congruency between media opinion and grassroots opinion, which could potentially bias the estimates. E. J. Lee and Jang (2010) found that when grassroots comments dissented from the news post, readers’ personal opinions were significantly affected by the perceived discrepancy. Such effect, however, has not been consistently observed. For example, J. S. Lee and Sung (2007) found no significant influence of dissenting grassroots comments on readers’ opinions, but they did find a significant impact with the same slant of news and grassroots comments. Despite the inconsistent observations, this seems to indicate that news genres or the combination of news and comments have the potential to inform readers’ personal judgments. Thus, for further validation of the results presented, it was critical to examine models across news genres. If the convergence of evidence could be established through triangulation, more confidence in the results could be obtained. Hence, the same model was applied to data split across news genres. The results are illustrated in Table 2.

When the same model was estimated against the negative-news data, the pattern was close to what was found in full sample data. Although the direct impact of exposure to grassroots criticism of the government on satisfaction judgment was not statistically significant \((b = -.08, p > .05)\), the standardized regression coefficient for exposure and perceived freedom of speech was statistically significant \((b = .24, p < .001)\), as was the standardized regression coefficient between perception and satisfaction judgment \((b = .13, p < .05)\). Moreover, a formal test of the indirect effect was conducted with bootstrapping, and the effect was .04, 95% CI [.007, .065]. The indirect impact through the mediator of perceived freedom of speech was then statistically significant. Therefore, in negative news groups, whereas Hypothesis 1 was not supported, Hypothesis 2 was supported.

Estimated against the positive news data, the dual-process model was not supported, with mixed findings as to the indirect and direct path hypotheses. The direct path from grassroots criticism exposure to satisfaction judgment was statistically significant \((b = -.18, p < .001)\). Exposure to grassroots criticism of the government was positively related to perceived levels of freedom of speech \((b = .19, p < .001)\), but the relationship between perceived freedom of speech and citizen satisfaction with the government was
not statistically significant ($b = .04, p > .05$). As such, the proposed indirect path was not supported in the positive news conditions. Therefore, Hypothesis 1 was supported, but Hypothesis 2 was not.

Another set of follow-up analyses, using independent sample $t$ tests, was conducted to examine the overall influence of exposure to criticism of government on levels of citizen satisfaction with government. It revealed that levels of citizen satisfaction with government were lower in participants exposed to news and grassroots criticism ($M = 2.48, SD = 0.83$) than in people exposed only to news stories ($M = 2.69, SD = 0.82$). The difference was statistically significant, $t(752) = -3.20, p < .01$, a finding that did not hold across all news genres.

In the positive news conditions, levels of citizen satisfaction with government were significantly lower in people exposed to news and criticism of government ($M = 2.51, SD = 0.83$) than in the news-only conditions ($M = 2.80, SD = 0.83$), $t(375) = -3.163, p < .01$. In the negative news conditions, the difference between levels of citizen satisfaction with government in comparing groups was not statistically significant ($M_{criticism and news} = 2.45, SD_{criticism and news} = 0.82; M_{news only} = 2.57, SD_{news only} = 0.80$), $t(375) = -1.361, p > .05$. It seems that when criticism follows negative news of government, the deduction the message content caused could be offset by the contextual influence, an indirect impact caused by the existence of grassroots criticism in repressive countries, thereby resulting in seemingly unaffected satisfaction levels as a whole. In contrast, when it comes to good news of government, the perception of freedom of speech is also increased; however, the impact hardly spills over to the satisfaction judgment, leading to the deduction that the criticism dominated the resulting satisfaction levels.

**Discussion and Conclusions**

Through his famous observation, Wichelns (1925) suggests that criticism “is concerned with effect” (p. 22), and K. K. Campbell (1974) adds to it by suggesting that criticism must perform a function for society through restructuring the audience’s perceptions. This study adds evidence to our understanding of the social influence of political criticism by combining content-based and context-based effects. Particularly, it investigated how the presence of criticism, rather than the content of it, activates contextual cues that affect subsequent judgment. In addition, given the fact that few empirical studies in citizen satisfaction with government have documented the impacts of media exposure, a key factor in attitude formation, this study attempted to fill this void by examining online grassroots comments, a powerful social annotation that could affect Internet users’ attitudes in news consumption.

Several tentative conclusions could be derived from this study. First, exposure to grassroots criticism of government will increase perceived levels of freedom of speech for people in a country with heavy censorship. Second, exposure to grassroots criticism of the government may not necessarily lower citizens’ government satisfaction. When the contextual cue of perceived freedom of speech is activated, the reduction in satisfaction caused by the message might be offset by the impact brought by increased freedom of speech perception.
Judging by effect size, our model accounted for 8–9% of the variance in participants’ government evaluation. The $R^2$ size could be considered moderate to the extent that previous studies examining the impacts of online comments exposure on political evaluations explained about 6–12% of the variance (e.g., F. L. Lee, 2014; Tang & Hube, 2014). The moderate effect size was partly caused by the inconsistent mediation in the current study because the two routes’ influence cancelled each other.

**Implications**

What substantial meanings can be extracted from the conclusions? If anything, it should be mentioned first that the context of communication is intertwined and inseparable from the communication process. Some contextual cues might provide additional information that affects interpretations of the message. In a censored environment, grassroots criticism of the government signals a loosened control on information flow, which will be taken as a sign of good governance by protecting citizens’ freedom of speech and therefore will exert positive influence on political judgment. Such contextual influence is derived from a particular mindset triggered by the uncensored criticism in the endemic political culture. It is possible that if the comment section is disabled for specific news, the mindset, linking online grassroots comments to freedom of speech, would also be activated.

In addition, the increase of perceived freedom of speech caused by exposure to online grassroots criticism lends justifications for the authority’s tolerance of critical voices in its governance. The current study demonstrated that allowing criticism of government on the Internet not only let off the discontent of citizens, as some have suggested (e.g., R. MacKinnon, 2008), but also impressed Internet users with an authority that respects their basic human rights, and thereby improves their satisfaction with the government. In this sense, the authority’s strategic tolerance of grassroots criticism serves as a safety valve, lending justification for the practice.

In our study, the overall satisfaction with government decreased when citizens were exposed to propaganda-like good political news and grassroots critical comments, whereas the overall satisfaction remained unchanged when the news was negative political news. Higher perceived freedom of speech values resulting from negative critical news comments could translate into higher levels of citizen government satisfaction. But meanwhile, exposure to negative news and comments could lead to lower levels of satisfaction. So, the two routes of impacts cancel each other. The findings suggest that the authority’s tolerance of grassroots criticism of government, a phenomenon observed by some scholars (King, Pan, & Roberts, 2013, 2014), might be “harmless” at best and it might hurt authority’s images on some occasions, in particular if it is propaganda content.

The current study identified a factor that leads to differential impacts on satisfaction with the government (e.g., harmless vs. harmful): news genre. The effect from perceived freedom of speech to government satisfaction was conditioned by news genres. When critical comments followed bad political news, the impact of exposure to critical comments on satisfaction was observed. When the critical comments followed propaganda-like political news, such effect was not observed. How can we explain the inconsistency?
Negativity bias may serve as a potential explanation. In most situations, negative information is more salient, potent, and dominant in attitude and impression formation than positive information (Ito, Larsen, Smith, & Cacioppo, 1998). Individuals pay more attention to negative information (Baumeister, Bratslavsky, Finkenauer, & Vohs, 2001), and this tendency is evidenced even in infants (Hamlin, Wynn, & Bloom, 2010). In political science, a large body of research has suggested that bad news has a greater impact on evaluations of government and public officials as compared with good news (Headrick & Lanoue, 1991; Nannestad & Paldam, 1997). In line with this reasoning, when exposed to negative news, readers may pay more attention and process more deeply, leading to a spillover effect on satisfaction judgment through the perception of freedom of speech, an effect that is not found in positive news conditions.

An alternative explanation could derive from the background of this study. When reading positive news stories, it is easier to associate positive news with government propaganda of the Chinese Communist Party (Chan, 1993), and then citizens would regard it as government manipulation and deception (B. Xu, 2009). Acknowledged by G. C. Xu (1996), a former deputy minister of the Chinese Propaganda Department, “the propaganda might have a boomerang effect—[the Chinese Communist Party’s] manipulation of news stories could trigger citizens’ distrust in the government and criticism of the authorities” (p. 79). In line with such reasoning, exposure to propaganda-like positive news would bias the processing of information, impeding the spillover of positive impact from perceived freedom of speech to satisfaction judgment of the government.

The contribution of this study lies in several aspects. First, this study found the impact of criticism exposure in an authoritarian regime to be different from that in democracies. Exposure to online criticism in China may not necessarily affect people’s political attitudes in a negative way. In contrast, previous studies have discovered that exposure to online criticism of government will lead to negative evaluations of relevant political entities in democratic regimes (e.g., Baumgartner, 2013; E. J. Lee & Jang, 2010). The long-lasting repressive political culture breeds a desire for speech freedom among citizens who use it as a standard to adjust their attitudes toward government.

Second and related, our findings suggest that Chinese citizens have a need for speech freedom, and this may be underestimated in previous studies because of methodological issues. A large number of studies that used survey methods suggest that Chinese people show low levels of endorsement for democratic values such as freedom of speech compared with people in the West (e.g., Freeman & Geeraerts, 2011; Inglehart, 2003; Xiao, 2005). For example, using World Value Survey data, Freeman and Geeraerts (2011) showed that 34.9% of Chinese respondents gave maintaining order in the nation as their first priority, whereas only 3.8% of people chose protecting freedom of speech as their first priority. They also suggested that younger and more educated Chinese people assigned higher weight to maintaining order, which further clouds our views of Chinese progress for democratization.

It is highly possible that survey respondents restrained themselves from giving true thoughts in a country where censorship is routine when directly asked about the importance of free expression. Without explicitly asking people’s desire for free speech, the current study demonstrates that Chinese people, especially those who are young and well educated, are longing for free expression and use it as a criterion
to evaluate the government. The current study provides an alternative measure for investigating sensitive political concepts in authoritarian countries.

Third, this study detected a fragile effect of propaganda-style news in the Chinese context. Some scholars argue that government propaganda leads to positive attitudes toward the government (Ellul, 1965; MacKenzie, 1984), but others contend that people in repressive states are immune to such propaganda and always regard it as deception (B. Xu, 2009). The current experiment suggests a more complex scenario: On the one hand, exposure to propaganda-like news increases citizen satisfaction with the government; on the other hand, the effect is somewhat unstable: When the news attracts criticism, the level of government satisfaction suffers.

**Limitations**

Despite all of the interpretations outlined, the generalization of the findings should be taken with caution. Although we positioned grassroots criticism exposure in a censored environment, the environment and the perception of it might change over time, which in turn will affect the impact of criticism exposure. Internet censorship in China is pedantic rather than static and rigid. When tension is higher, censorship will be tighter, and people’s sensitivity to issues such as freedom of speech will be adjusted accordingly. As such, it is wise to emphasize the states of being as dynamic, and keep a close watch on the context before any investigation of context-dependent effects.

The current study demonstrates the effect of contextual cues from critical comments, but the mechanism of the direct impact of media content on satisfaction judgment remains vague. It is worth noting that previous studies have examined impacts of online comments on evaluation of the specific dimension of government performance (e.g., Tang & Huhe, 2014). The most significant difference between our study and previous studies is that we emphasized the issue of perceived speech freedom and its relationship with critical comments. In addition, it should be kept in mind that online grassroots critical comments might be directed toward different segments of society and toward different entities as well. In this study, we focused primarily on the impacts of criticism directed specifically toward government, not toward other entities (e.g., the media, social groups, etc.), which might further complicate the analysis of its influence on perceptions of freedom speech and political attitudes.

Future investigations might address the causal relationship with more delicate designs. Technically speaking, perceived freedom of speech is a posttreatment relative to citizen satisfaction. The reason we placed the government satisfaction question before the perceived freedom of speech question is because we wished to keep our measure of government satisfaction separate from the influence of the freedom of speech perception measure. If the perceived freedom of speech measure had come first, the measure itself could have served as a “priming stimulus” that reminded participants that speech freedom should be one dimension of government performance assessment. If this is true, then the association between the two variables could be artificial, and such an effect has been demonstrated numerous times in previous studies in political science (e.g., Iyengar & Kinder, 1987; Krosnick & Kinder, 1990; Valentino, 1999).
Last but not least, it is worth noting that exposure to grassroots criticism online merely provides one heuristic cue to Internet users to formulate the judgment of censorship severity, which can be contingent on other cues, such as diversity of public opinions, quantity of online discussions, and sudden shutdown of comment sections. Future study may manipulate the number of comments or the perceived diversity of the opinion climate to investigate the subject further.

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