# In Search of Reason-Centered Discussion on China's Twitter: The Effects of Initiating Post and Discussion Format on Reasoning

## MINGXIAO SUI<sup>1</sup> RAYMOND J. PINGREE Louisiana State University, USA

Reason-centered discussion of politics is an important route toward improving the quality of public opinion. This study examined predictors of reason-centered online discussion, including the use of a debate format with two sides displayed as opposing columns, as well as various characteristics of the post that initiates the discussion. A content analysis was conducted to examine 6,360 reply posts in 291 threaded discussions on Sina Weibo, one of China's most popular venues for online discussion. Results showed that debate format is greatly associated with a higher reasoning level of the corresponding threaded discussion, with opinion presence and multiple viewpoints playing a role as well. Moreover, debate format can elicit differences in the effects of initiating posts on the overall reasoning level of a threaded discussion. Implications for online discussion in the virtual sphere are discussed.

## Keywords: political discussion, reasoning, Internet, social media, China

Reason-centered discussion, an important route toward improving the quality of public opinion, is characterized by the use of reasoning in group discussions. Reasons are advantageous because they suggest a sophisticated knowledge (Kuhn, 1991) both for anchoring one's opinion and for comprehending opinions held by others (Cappella, Price, & Nir, 2002; Gutmann & Thompson, 1996). Especially with an opportunity to equally exchange reasoned arguments by all sides, citizens are more likely to shape collective decisions about public affairs (Cappella et al., 2002; Habermas, 1989). We thus focus on the presence of reasons as the most basic condition for democratically valuable political discussion, although there are many other conditions that are also important (e.g., Carpini, Cook, & Jacobs, 2004; Habermas, 1989; Mutz, 2006; Papacharissi, 2004; Park, 2000; Price, Nir, & Cappella, 2006; Stromer-Galley, 2003).

Although the Internet has provided a variety of new venues for political discussion, not all political discussion is reason-centered. Online expression often focuses on emotional release rather than substantive reasoning (Arsène, 2008; Quan & Ren, 2010). This is especially a concern for online

Mingxiao Sui: msui1@lsu.edu Raymond J. Pingree: rpingree@lsu.edu Date submitted: 2015-04-26

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discussion in China, where a fear of government surveillance may make individuals hesitate to express their thoughts about politics. The effects of such fears may not always translate into complete selfcensorship. Instead, many young Internet users seek to express their dissatisfaction, frequently taking extreme positions without justifying these positions (Arsène, 2008). This group of Internet users, who intend to express their opinions without substantive reasoning, are often called *angry youth*.

So, what would get citizens to focus on substantive reasons in online discussion? Past experimental research suggests the influence of *discussion framing* on this outcome, as received frames can make audience members more or less likely to focus on substantive reasons in their own subsequent cognitions and discussions (Pingree, Scholl, & Quenette, 2012). In the context of an online discussion in which not all participants have read the news article, the initiating post of a threaded discussion may serve this framing role, leading to more or less reasoned discussion. Technological features of the discussion website may also affect the likelihood of substantive reasoning. Some online discussion environments have experimented with features apparently designed for this purpose; specifically, a debate format in which comments for opposing sides are placed in opposite columns. Research has not yet tested what effect this has on the resulting discussion.

This study is a preliminary step in examining the predictors of reason-centered political discussions on China's social media. Although we acknowledge that experimental studies can better examine a causal relationship, a quantitative content analysis study has the advantage of gathering data from natural discussions in real-world settings. Specifically, we investigated whether the content of the initiating discussion post and the choice of a debate format versus a traditional open-ended discussion format would predict the overall level of reasoning employed by other participants in the corresponding threaded discussions. A quantitative content analysis was employed to dissect 6,360 reply posts in 291 threaded discussions on political issues.

## **Importance of Reason-Centered Discussion**

Increasingly, the use of reasons in daily conversation has attracted scholarly attention. For example, Price, Cappella, and Nir (2002) proposed reasons as the core component for argument repertoire—argumentation that reflects the range and validity of reasons people use to support their positions or refute their opponents' positions (also see Lustick & Miodownik, 2000). Consequently, citizens with higher levels of reasoned argumentations also tend to "be more interested in politics, more knowledgeable about politics, more attentive to political news, and more likely to read newspapers for news" (Carpini et al., 2004, p. 83). Besides, the Carpini et al. (2004) study suggests that online deliberation is a vital source for citizens to learn reasons because those who participate in online deliberations tend to provide more reasoned argumentations than people who do not.

Although it is of course not the only desirable quality of citizen discussion, the use of reasons is the most basic and desirable element in democratic theory (e.g., Carpini et al., 2004; Fishkin, 1995; Gutmann & Thompson, 1996; Habermas, 1989). As citizens often form opinions by incompletely sampling their memory for relevant reasons (Zaller, 1992), discussion offers the potential to pool those samples and produce opinions based on a broader set of reasons (Fearson, 1998; Fishkin, 1991, 1995; Fishkin, He, & Siu, 2008). However, in practice, many citizens will have already made up their minds in such discussions, and for them hearing reasons from the other side might not necessarily lead to open-minded reconsideration of their opinion. Instead, such citizens will likely engage in biased counterarguing (Edwards & Smith, 1996), often resulting in strengthening their prior opinions, but still making them more likely to remember the reasons because of the active cognitive processing involved in counter-arguing. Even if sharing reasons does not lead anyone to change their minds, it is thought to have other benefits for the health of democracy. It may lead citizens to a more public-spirited mindset because reasons that relate to the public good (e.g., "this policy will create jobs") are strategically chosen to be more persuasive to a general audience, even if selfish motives (e.g., "this policy may create a job for me") are an unspoken motive (Fearson, 1998). In addition, discussion of reasons may create a perception of democratic legitimacy by making all sides feel that their reasons have been heard and considered (Cohen, 1989; Parkinson, 2003).

### **Reason-Centered Discussion in China**

China may be a particularly challenging context for producing reason-centered discussion because a fear of government surveillance may lead individuals to hesitate to express their thoughts about politics. The effects of such fears may not always translate into complete self-censorship. Based on interviews with Chinese Internet users, Arsène (2008) found that many individuals treated the Internet mainly as a platform for releasing emotions. As such, even though many young Internet users would seek to express their opinions, they would frequently take extreme positions without justifying them. This group of Internet users are often categorized as *angry youth* because they intend to express their perspectives without solid reasoning.

Worse than this is the emerging *Internet sprayer*, a Chinese term very similar to *Internet troll*. The term *Internet sprayer* is often used for people who criticize almost anything without actually reading an online post or news article. Such Internet users do not care about discussion topics or others' comments; instead, they seek to challenge a group discussion by posting aggressive, inflammatory, and extraneous messages that are often off topic.

Whereas several studies have examined the quality of discussions on social media in the U.S. context, very few empirical studies have been conducted to explore political discussions on a popular global microblogging social network—Sina Weibo (China's Twitter). This may be in part because the function of Sina Weibo as a platform for political discussion remains controversial. Most posts on Sina Weibo are "soft" tweets such as jokes and entertainment videos (Yu, Asur, & Huberman, 2011). Moreover, people's intention to participate in political discussion on Sina Weibo is decreasing because of a registration system that requires users to sign up using their real names, as well as intensified government control (Bamman, O'Connor, & Smith, 2012; China Internet Network Information Center, 2014). Nevertheless, verified Sina Weibo users (i.e., users registered under their real names) contribute a large number of posts related to public affairs such as food security, tax policy, and education reforms. In addition, mass users of Sina Weibo facilitate the spread of these discussions via reposting and commenting. With millions of users participating in this process, many discussions on Sina Weibo can easily attract citizens' attention and potentially influence decision-making processes (Guan et al., 2014).

For example, discussions on Sina Weibo were found to be "a means for sharing information and expressing opinions" for a new generation of rural migrant workers and helped to "improve the lives of migrant workers in cities" (Zhang, 2013, p. 63). Such changes lead to an expectation that citizens will increasingly use the Internet to discuss matters of common concern (Yang, 2013).

## **Predictors of Reason-Centered Discussion**

It is of both scholarly and practical importance to investigate reason-centered discussion on China's social media. In this study, reason-centered discussion concerned the overall reasoning level of a group discussion, although not all participants used reasons to justify their points of view. Specifically, when more participants presented reasons during their discussion, the level of reasoning demonstrated by the group increased.

Although we have not yet found ways to encourage citizens to focus on reasons in online discussions, past studies imply that individuals can have an impact on the overall group discussion (e.g., Chen & Chiu, 2008; Halpern & Gibbs, 2013; Wojcieszak & Mutz, 2009). For example, Velasquez (2012) conducted an analysis of 380 online stories and corresponding comments posted in a Colombian online political community. He found that discussion among users influenced the decision of others to participate. This is consistent with Halpern and Gibbs' (2013) finding that the more individuals respond to other participants, the more frequently they will participate in discussions on social media.

Individual expressions presented by some participants also have been found to not only affect the way other participants express their viewpoints, but also affect the overall quality of a group discussion (Schneiderhan & Khan, 2008). Hence, how individuals behave matters to both the quantity and quality of a group discussion. In the context of an online discussion in which not all participants would have read the others' comments, the initiating post—that is, the one that provides certain content to start a threaded discussion—is likely to be a particularly important message that most participants would notice. Thus, we focused on the content of the initiating post of a threaded discussion as an antecedent for reason-centeredness of the resulting discussion.

Specifically, the initiating post may serve a framing role to make participants adopt a focus on reasons to the extent that the initiating post itself does so. Pingree et al. (2012) uncovered a causal relationship between news frames and policy reasoning <sup>2</sup> in their experimental study. Compared with a game-framed story in which candidate performance and character issues were emphasized, a post-debate news coverage that employed a policy frame to stress the candidates' different positions on how to respond to North Korea's nuclear weapons program led the participants to spontaneously offer significantly more policy reasons in their subsequent discussions. This reveals the influential impact of policy-framed news stories on individuals' tendency to provide policy reasons. Initiating posts on Sina Weibo may serve the same framing function for the discussion that follows, leading participants to include more or fewer reasons in their replying posts.

<sup>&</sup>lt;sup>2</sup> Although Pingree et al. (2012) examined policy reasons as an outcome, their findings still suggest the importance of framing that can affect other broader types of reasons.

The environment in which a group discussion is conducted is another important factor that affects the way people discuss issues (Mutz, 2006). As revealed in previous studies, when exposed to a heterogeneous social network in which disagreement exists, not only would participants consider the others' counterattitudinal viewpoints as more legitimate (Mutz, 2002, 2006), they would also be more capable of providing reasons in support of their own opinions (Price et al., 2002). In the online context, although many studies have looked at the impact of online forums, chat rooms, bulletin boards, and social media (e.g., Davis, 2005; Kim & Park, 2012; Wojcieszak & Mutz, 2009), few have examined how certain features of an online discussion environment would affect discussion quality. In this study, we explored the possibility that the format of threaded discussions also matters.

Two formats are available for use in Sina Weibo's threaded discussions: open-ended format and debate format. An open-ended format is a typical threaded message board in which all messages are simply listed chronologically. A debate format places messages in two columns representing two competing sides. This debate format is a simple version of what Pingree (2006) calls *decision-structured deliberation*—that is, participants may organize messages according to their roles in a decision (i.e., as arguments supporting one side or the other). Discussion formats that are explicitly organized using such structures instead of as a simple chronology have been proposed as potentially helpful to keep participants focused on reasons and to lead them to base their opinions on a broader set of reasons (Pingree, 2006), but these predictions have not, to our knowledge, been empirically tested.

#### Hypotheses and Research Questions

As discussed above, a debate format in which messages are organized into opposing columns based on which side they argue for is expected to lead to more reasoning than a more traditional openended discussion format in which messages are simply listed chronologically. Thus, we hypothesized the following:

## H1: Discussions presented in a debate format will show higher levels of reasoning.

As we argued above, the content of an initiating post may be particularly important for framing the resulting discussion. In other words, many messages posted within a discussion are written as direct responses to the initiating post. Thus, if the initiating post provides reasons, it may serve as a model for posts within the discussion, leading those who respond to do likewise either in support of the initiating post or to counterargue it. Therefore, we posed Hypothesis 2:

#### H2: Discussions with initiating posts that include reasons will show higher levels of reasoning.

Whether or not the initiating post includes reasons, it could also stimulate counterarguing by simply expressing an opinion. Thus, including an opinion in an initiating post could stimulate more reasoning. However, it could also serve as a model of mere opinion expression, leading other participants to adopt this same behavior instead of expressing reasons. Because of these countervailing predictions, we posed a research question:

## RQ1: Will discussions with initiating posts that include opinions show higher levels of reasoning?

Initiating posts that express multiple viewpoints may also stimulate more reasoning by activating a more diverse set of concepts. However, acknowledging multiple viewpoints may also be inherently a less strident and provocative approach, which leads to less reasoning by stimulating less counterarguing. Thus, we posed a research question about the effect of multiple viewpoints in the initiating post:

*RQ2:* Will discussions with initiating posts that mention two or more viewpoints show higher levels of reasoning?

Finally, we posed a set of research questions about whether debate format interacts with each of the above-mentioned factors. For instance, it is possible that any benefit of the initiating post, including reasons, occurs only in an open-ended format and not in a debate format because the debate format is sufficient to induce a focus on reasons.

- *RQ3:* Will debate format interact with whether the initiating post includes reasons in predicting the overall level of reasoning in the discussion?
- *RQ4:* Will debate format interact with whether the initiating post includes opinions in predicting the overall level of reasoning in the discussion?
- *RQ5:* Will debate format interact with whether the initiating post mentions two or more viewpoints in predicting the overall level of reasoning in the discussion?

## Method

To examine our hypotheses, we collected a total of 6,360 reply posts in 291 threaded discussions from Sina Weibo's huati.weibo section, which provides discussions on hundreds of issues every day. As Sina Weibo is compatible with many devices, participants in these threaded discussions made their comments through both mobiles and computers.

Sina Weibo is similar to Twitter in many aspects. Its unique feature of huati.weibo allows users to start a threaded discussion using hashtags in either an open-ended format or a debate format. Despite a small flow of political information, huati.weibo embraces a fair number of threaded discussions focusing on policy issues such as medical reform, food security, environment protection, gay marriage, and the revocation of the Seismological Bureau. This ensures a collection of political discussions from Sina Weibo.

All 291 threaded discussions were accessed by reviewing all discussions presented in huati.weibo in March, August, and September 2014. Within each threaded discussion, we randomly selected at least 20% of the total number of replying posts in that discussion for coding. If a threaded discussion comprised fewer than 15 reply posts, we coded them all.

## Measurements

**Dependent variable.** We defined *reason-centered discussion* as a threaded discussion in which participants employed reasons in their expressions. It was measured by the degree to which reasons were used to justify the validity of one's given claims. Here, we followed Cappella and colleagues' (2002) operationalization of reasons—reasons that "are acknowledged in public discourse as plausible reasons" (p. 77). In other words, a reason was counted if it was relevant to a given issue, explicitly (e.g., using the words *because* and *since* before offering considerations) or implicitly (e.g., two separate sentences without being connected by *because*) defending one's claim. Also, note that we only judged whether one's claim or reason was relevant to a given issue, but did not judge whether it was accurate.

As our dependent variable sought to capture the overall reasoning level of a threaded discussion, but was measured on the individual post level, each reply post was coded as 1 if it included any reasons and 0 if it included no reasons. This allowed us to transform individual measures into aggregated-level measures that could represent the percentage of messages in a discussion that used reasons. See Table 1 for descriptions of the variables and measurement means used in this study.

**Independent variables.** We defined *initiator dissimilar viewpoints* as the diversity of viewpoints stated in the initiating post. It was measured by evaluating the total number of viewpoints presented in an initiating post. We recognized a viewpoint as an argument that included an opinion, a reason, or both. Specifically, an initiating post that mentioned no opinions or reasons was coded as 0; if an initiating post presented a one-sided viewpoint, it was coded as 1; an initiating post with two or more different viewpoints was coded as 2. A dummy variable was computed later to capture whether an initiating post provided dissimilar viewpoints, where 0 = none or only one viewpoint and 1 = dissimilar viewpoints.

*Initiator opinion presence* was operationalized as the presence or absence of any opinions in an initiating post. Specifically, an initiating post was coded 1 if it explicitly proposed an opinion and coded 0 if no explicit opinions existed.

*Initiator reason presence* was operationalized as the presence or absence of reasons in an initiating post. Specifically, an initiating post was coded 0 if it included no reasons and coded 1 if it included at least one reason.

Discussion format refers to the format in which a discussion thread was presented as chosen by the author of the initiating post. Specifically, a thread was coded 1 if it took on a debate format that proposed two competing positions; it was coded 0 if it took on an open-ended format that did not ask participants to choose any positions.

Measurement
0 = no opinions (e.g., background information)
1 = one-sided opinion (e.g., colleges should not increase tuition)
2 = two or more different viewpoints (e.g., some agree that
colleges should increase tuition,; but some do not think so) <sup>a</sup>
0 = no explicit opinions presented (e.g., should colleges increase
tuition?)
1 = explicitly proposes an opinion (e.g., I don't think colleges
should increase tuition)
0 = no reasons included (e.g., background information or pure
opinions)
1 = at least one reason is mentioned (e.g., colleges should not
increase tuition because the current tuition is already too high)
0 = an open-ended format that did not ask participants to choose
any positions
1 = a debate format that proposed two competing positions and
asked the participants to choose one
The degree to which reasons are used to justify the validity of one's
given claims; for example, if a threaded discussion has $N$ replier
posts, and $M$ of them uses a reason, the level of reasoning for this
threaded discussion is $M/N$ . Measured in portion (0–1).

## Table 1. Variables and Measurements.

*Note*. The first four variables are predictors, all captured in the initiating post; and the last is the dependent variable, captured in sampled replying posts.

<sup>a</sup> A dummy variable was computed later to capture this three-category variable, where 0 = none or only one viewpoint and 1 = dissimilar viewpoints.

**Control variable.**<sup>3</sup> We defined *discussion initiator* as the type of individuals or institutions that initiated a threaded discussion. It was recognized by the names and descriptions for each initiator, including media (coded as 1), general citizens (coded as 2), and others (coded as 3). It should be noted that most initiators on Sina Weibo are media and common citizens; thus, we failed to specialize a category for "politicians and governments." As a result, "others" include politicians, political institutions, nonprofit organizations, educational institutions, and so forth.

<sup>&</sup>lt;sup>3</sup> Issue feature was another confounding variable that we tried to control for but unfortunately failed. Although we tried to capture whether an issue was politically sensitive (e.g., criticism of government, politicians' performance, etc.), there were very few such issues. This is not surprising as Sina Weibo strictly censors issues.

One of the authors and a trained coder coded the data. Intercoder reliability <sup>4</sup> for all variables was calculated using Krippendorff's alpha and resulted in coefficients ranging from .82 to .97.

## Results

Our dependent variable required some processing before hypotheses and research questions could be tested. The unit of analysis was a threaded discussion, but our dependent variable was initially coded at the level of the individual reply post, with reply posts coded as 0 = absence of reasons and 1 = presence of reasons. This was aggregated into a dependent variable at the level of the threaded discussion by taking the proportion of reply posts that were coded as 1 among the total number of reply posts in that thread. According to an initial test of normality distribution of the 291 discussion threads for analysis, the dependent variable was extremely skewed. Thus, to obtain a distribution of data appropriate for analysis of covariance, we generated a logged dependent variable using the rule of  $\log_{10}(X + 1)$ , where *X* referred to original values in our dataset.

An analysis of covariance was conducted to examine the effects of initiating post and discussion format on the overall level of reasoning presented in threaded discussions, with discussion initiator as a covariate. <sup>5</sup>

Predictor		Hypotheses and
	<i>F</i> (1, 263)	research questions
Debate format	6.36**	H1 supported
Initiator reason presence	0.20	H2 not supported
Initiator opinion presence	4.81*	Evidence for RQ1
Initiator dissimilar viewpoints	3.90*	Evidence for RQ2
Initiator Reason Presence $\times$ Discussion Format	3.95*	Evidence for RQ3
Initiator Opinion Presence × Discussion Format	0.40	No evidence for RQ4
Initiator Dissimilar Viewpoints $\times$ Discussion Format	4.03*	Evidence for RQ5

Table 2. Analysis of Covariance Results for Predictors of Reason-Centered Discussions.

*Note*. Each row represents main effects and interaction effects on the overall level of reasoning in a threaded discussion.

\*p < .05. \*\*p < .01.

<sup>&</sup>lt;sup>4</sup> For intercoder reliability, two coders each coded a subsample (about 1,000 repliers' posts within 50 threaded discussions), with the overlap posts being blinded and randomly chosen.

<sup>&</sup>lt;sup>5</sup> For the analysis of covariance, two dummies—media and individual citizens—were computed to capture this three-categorical variable.

The results yielded main effects for most of our independent variables, with an exception of initiator reason presence (see Table 2). Specifically, discussions with a debate format (M = 0.66, SE = 0.03) had higher levels of reasoning than discussions in an open-ended format (M = 0.17, SE = 0.05), F(1, 263) = 6.36, p < .01. Discussions with initiating posts that included opinions (M = 0.55, SE = 0.03) had higher levels of reasoning than those with initiating posts in which opinions were not presented (M = 0.29, SE = 0.03), F(1, 263) = 4.81, p < .05. Also, initiating posts that mentioned none or only one viewpoint (M = 0.62, SE = 0.03) had higher levels of reasoning in the corresponding discussions than initiating posts that mentioned two or more viewpoints (M = 0.23, SE = 0.05), F(1, 263) = 3.90, p < .05. Even though discussions with initiating posts that included reasons (M = 0.38, SE = 0.04) had lower levels of reasoning than those in which initiating posts presented no reasons (M = 0.41, SE = 0.03), the effect of reason presence was not statistically significant, F(1, 263) = 0.20, p > .05. Overall, the results provided evidence for Hypothesis 1, Research Question 1, and Research Question 2, whereas Hypothesis 2 was not supported.

Two of the three features of initiating posts significantly interacted with discussion format. As Figure 1 shows, the debate format's advantage in amount of reasoning was larger when the initiating post included reasons ( $\Delta M = 0.77$ ) than when it did not ( $\Delta M = 0.19$ ), and this difference was significant as evidenced by the interaction term between initiator reason presence and debate format, F(1, 263) = 3.95, p < .05.

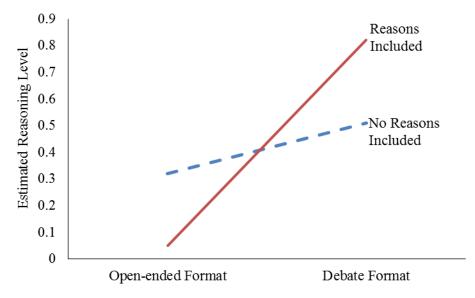


Figure 1. Estimated reasoning level: Discussion Format × Reason Presence.

As shown in Figure 2, the increase in reasoning associated with the debate format was also greater when the initiating post included dissimilar viewpoints ( $\Delta M = 0.75$ ) than when it did not ( $\Delta M = 0.15$ ), and this interaction was significant, F(1, 263) = 4.03, p < .05.

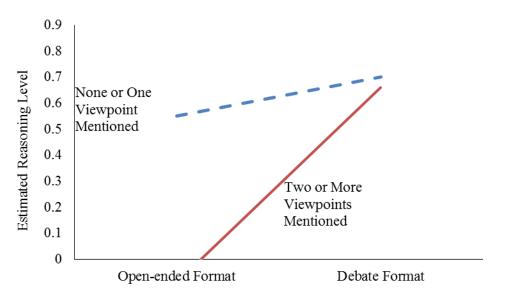


Figure 2. Estimated reasoning level: Discussion Format × Dissimilar Viewpoints.

In answer to Research Question 4, no significant interaction was found between discussion format and presence of opinion in the initiating post, F(1, 263) = 0.40, p = .53.

## Discussion

The present study is a preliminary step in examining whether the amount of reasoning in Chinese online political discussion differs across debate versus open-ended discussion formats as well as across certain characteristics of the posts that initiate a threaded discussion. A quantitative content analysis was conducted to examine 6,360 reply posts in 291 threaded discussions drawn from China's Sina Weibo. Overall, this study suggests that under certain conditions, Chinese citizens do express reasons online. This study also offers some suggestions about what discussion initiators might do to encourage this valuable basic attribute of political discussion. However, these suggestions should be taken as highly tentative until they are replicated in experiments that actually randomly assign both discussion formats and the initiating post content.

First, the level of reasoning in the debate format was nearly 4 times higher than in the more familiar open-ended format. As estimated using our analysis of covariance model, the overall reasoning level would be 0.66 for threaded discussions that employed a debate format with two sides displayed as opposing columns. That is, of 100 reply posts in a threaded discussion, 66 of them used reasons to justify their claims. On the other hand, the estimated reasoning level was 0.17 for the open-ended format, which translates to 17 of 100 repliers' posts using reasons. We attribute this to individuals' motivation to defend their positions. That is, they are more likely to use reasons when they are in a debate situation and challenged by the oppositional side. Because the discussion format was not randomly assigned, we cannot

be sure how much of this impressively large difference was caused by the discussion format. We can rule out reverse causality simply because the replying posts occurred after the initiating post, so they could not possibly have caused something that preceded them in time.

However, we cannot rule out a third variable influence, in which some other variables such as the nature of the topic leads both to the choice of a debate format and to an increase in reasoning in reply posts, without the debate format affecting reasoning at all. This suggests the need for an experimental follow-up study that randomly assigns participants to debate formats. If such an experiment found similar effects, they could be taken together with this study's data on naturally occurring use of the debate format to provide a stronger basis for recommending this format as a way of producing more reasoned discussion online. These results are consistent with predictions based on the decision-structured deliberation model (Pingree, 2006) but do not constitute a causal test of these predictions.

In addition, certain characteristics related to the content of initiating posts may also matter to reason-centered discussion. Not only that discussions with initiating posts that include opinions would show higher levels of reasoning than those in which initiating posts do not claim any opinions, but also that discussions with initiating posts that none or one viewpoint would also demonstrate higher levels of reasoning. These findings suggest the importance of strategies for composing an initiating post. To help improve the overall level of reasoning in a discussion, the initiators may consider mentioning none or one viewpoint and asserting their own opinions.

The finding with the most important empirical implications is that the effects of presence of reason and dissimilar viewpoints on reasoning were moderated by discussion format. When an initiating post includes reasons or mentions two or more viewpoints, the corresponding threaded discussion shows a higher level of reasoning if it is displayed in opposing columns. This may not only be related to visual communication in which the composition of a webpage matters to the resulting interaction, it would also be associated with the content displayed in the two opposing columns. However, partially because we did not isolate content from formats, this study cannot explain based on which specific mechanism discussion format may work.

As with any nonexperimental study, the demonstration of a causal relationship is a major limitation in this study. Even though we can confirm that the initiating posts and discussion formats always occur before reasons are used in the repliers' posts, we failed to rule out the effects of many confounding factors such as the popularity of a threaded discussion, the types of topics being discussed, trustworthiness of initiators, participants' perceptions of the importance of using reasons to justify their viewpoints, individual characteristics (e.g., education, knowledge, interest), and so forth. Thus, this study is only a preliminary step to show that the debate format and initiating post may be associated with the overall level of reasoning in a threaded discussion. Future research can assess whether causal relationships persist by conducting experiments. In addition to this internal validity limitation, findings in this study also may not apply to other types of online discussions or discussions in other nations; further research is also needed in other contexts. Despite such limitations, results of this initial study still offer some hope about the prospects for reasoned online political discussion in China and the rest of the world, and suggest a path for forward research to lead to recommendations about how to initiate a more reasoned political discussion online. With people relying more on digital communication these days, online political discussion tools such as Sina Weibo are an increasingly important topic of study. We hope more researchers will contribute to investigating predictors of high-quality online discussions, not only to improve the use of reasoning, but also to facilitate other aspects of discussion quality such as civility, arguments referencing the common good, arguments supported by evidence, and proposing compromises.

#### References

- Arsène, S. (2008). Online discussions in China: The collaborative development of specific norms for individual expression. *China Perspectives*, 2, 83–93.
- Bamman, D., O'Connor, B., & Smith, N. (2012). Censorship and deletion practices in Chinese social media. *First Monday*, 17(3). Advance online publication. doi:10.5210/fm.v17i3.3943
- Cappella, J. N., Price, V., & Nir, L. (2002). Argument repertoire as a reliable and valid measure of opinion quality: Electronic dialogue during campaign 2000. *Political Communication*, *19*(1), 73–93.
- Carpini, M. X. D., Cook, F. L., & Jacobs, L. R. (2004). Public deliberation, discursive participation, and citizen engagement: A review of the empirical literature. *Annual Review of Political Science*, 7, 315–344.
- Chen, G., & Chiu, M. M. (2008). Online discussion processes: Effects of earlier messages' evaluations, knowledge content, social cues and personal information on later messages. *Computers & Education*, 50(3), 678–692.
- China Internet Network Information Center. (2014). *Statistical report on Internet development in China*. Retrieved from http://www1.cnnic.cn/IDR/ReportDownloads/201404/U020140417607531610855.pdf
- Cohen, J. (1989). Deliberation and democratic legitimacy. In A. Hamlin & P. Pettit (Eds.), *The good polity: Normative analysis of the state* (pp. 17–34). Cambridge, UK: Blackwell.
- Davis, R. (2005). *Politics online: Blogs, chatrooms, and discussion groups in American democracy.* New York, NY: Routledge.
- Edwards, K., & Smith, E. E. (1996). A disconfirmation bias in the evaluation of arguments. *Journal of Personality and Social Psychology*, *71*(1), 5–24. doi:10.1037/0022-3514.71.1.5

- Fearson, J. (1998). Deliberation as discussion. In J. Elster (Ed.), *Deliberative democracy* (pp. 44–68). New York, NY: Cambridge University Press.
- Fishkin, J. S. (1991). *Democracy and deliberation: New directions for democratic reform* (Vol. 217). New Haven, CT: Yale University Press.
- Fishkin, J. S. (1995). The voice of the people. New Haven, CT: Yale University Press.
- Fishkin, J. S., He, B., & Siu, A. (2008). Public consultation through deliberation in China: The first Chinese deliberative poll. In S. Odugbemi & T. Jacobson (Eds.), *Governance reform under real-world conditions: Citizens, stakeholders, and voice* (pp. 461–475). Washington, DC: World Bank.
- Guan, W., Gao, H., Yang, M., Li, Y., Ma, H., Qian, W., . . . Yang, X. (2014). Analyzing user behavior of the micro-blogging website Sina Weibo during hot social events. *Physica A: Statistical Mechanics and Its Applications, 395*, 340–351. doi:10.1016/j.physa.2013.09.059
- Gutmann, A., & Thompson, D. F. (1996). *Democracy and disagreement*. Cambridge, MA: Harvard University Press.
- Habermas, J. (1989). The structural transformation of the public sphere: An inquiry into a category of bourgeois society. Cambridge, MA: MIT Press.
- Halpern, D., & Gibbs, J. (2013). Social media as a catalyst for online deliberation? Exploring the affordances of Facebook and YouTube for political expression. *Computers in Human Behavior*, 29(3), 1159–1168.
- Kim, M., & Park, H. W. (2012). Measuring Twitter-based political participation and deliberation in the South Korean context by using social network and triple helix indicators. *Scientometrics*, 90(1), 121–140.
- Kuhn, D. (1991). The skills of argument. Cambridge, UK: Cambridge University Press.
- Lustick, I. S., & Miodownik, D. (2000). Deliberative democracy and public discourse: The agent-based argument repertoire model. *Complexity*, *5*(4), 13–30.
- Mutz, D. C. (2002). Cross-cutting social networks: Testing democratic theory in practice. American Political Science Review, 96(1), 111–126.
- Mutz, D. C. (2006). *Hearing the other side: Deliberative versus participatory democracy*. Cambridge, UK: Cambridge University Press.

- Papacharissi, Z. (2004). Democracy online: Civility, politeness, and the democratic potential of online political discussion groups. *New Media & Society*, 6(2), 259–283.
- Park, S. G. (2000). The significance of civility in deliberative democracy. *Korean Journal of Journalism and Communication Studies*, 45(1), 162–194.
- Parkinson, J. (2003). Legitimacy problems in deliberative democracy. Political Studies, 51(1), 180–196.
- Pingree, R. J. (2006). Decision structure and the problem of scale in deliberation. *Communication Theory*, *16*(2), 198–222.
- Pingree, R. J., Scholl, R. M., & Quenette, A. M. (2012). Effects of post-debate coverage on spontaneous policy reasoning. *Journal of Communication*, 62(4), 643–658.
- Price, V., Cappella, J. N., & Nir, L. (2002). Does disagreement contribute to more deliberative opinion? *Political Communication*, 19(1), 95–112.
- Price, V., Nir, L., & Cappella, J. N. (2006). Normative and informational influences in online political discussions. *Communication Theory*, 16(1), 47–74.
- Quan, C., & Ren, F. (2010). A blog emotion corpus for emotional expression analysis in Chinese. *Computer* Speech & Language, 24(4), 726–749.
- Schneiderhan, E., & Khan, S. (2008). Reasons and inclusion: The foundation of deliberation. *Sociological Theory*, 26(1), 1–24.
- Stromer-Galley, J. (2003). Diversity of political conversation on the Internet: Users' perspectives. Journal of Computer-Mediated Communication, 8(3). Advance online publication. doi:10.1111/j.1083-6101.2003.tb00215.x
- Velasquez, A. (2012). Social media and online political discussion: The effect of cues and informational cascades on participation in online political communities. *New Media & Society*, 14(8), 1286– 1303.
- Wojcieszak, M. E., & Mutz, D. C. (2009). Online groups and political discourse: Do online discussion spaces facilitate exposure to political disagreement? *Journal of Communication*, 59(1), 40–56.
- Yang, G. (2013). *The power of the Internet in China: Citizen activism online*. New York, NY: Columbia University Press.
- Yu, L., Asur, S., & Huberman, B. A. (2011). What trends in Chinese social media? Retrieved from http://arxiv.org/abs/1107.3522

Zaller, J. (1992). The nature and origins of mass opinion. Cambridge, UK: Cambridge University Press.

Zhang, P. (2013). Social inclusion or exclusion? When weibo (microblogging) meets the "new generation" of rural migrant workers. *Library Trends*, *62*(1), 63–80.