Opinion Extremity Predicted by Media Exposure, Information Processing Mode, and Issue Sophistication About U.S.–China Trade Dispute

YAXIN DAI
Beijing Foreign Studies University, China

XIGEN LI
Shanghai University, China
Beijing Foreign Studies University, China

This study tested a model of predictors of opinion extremity about the U.S.–China trade dispute through a survey of 1,029 media users in China. The findings indicate that traditional and new media exposures do not differ significantly in their positive effects on opinion extremity. Systematic processing negatively moderates the relationship between new media exposure and opinion extremity, whereas systematic and heuristic processing modes show variant positive moderation effects on the relationship between traditional media exposure and opinion extremity. Issue sophistication is not found to be a moderator of the effect of media exposure on opinion extremity. Theoretical implications are discussed.

Keywords: opinion extremity, media exposure, information processing mode, heuristic-systematic model, issue sophistication

China and the United States have been embroiled in a full-fledged trade dispute for more than the past five years. Starting from March 2018, when the U.S. government released the tariff list on imports from China according to Section 301 and the Chinese government imposed tariffs on U.S. exports in a tit-for-tat manner, the trade dispute between the world’s two largest economies has entered the spotlight. As a threat to global economic growth and international relations, the trade dispute has been extensively covered by news media around the world. Since most international controversial issues are beyond an individual’s personal experience, media thus become one of the key sources of information for people to gain knowledge about international issues (Aalberg et al., 2013; Wanta, Golan, & Lee, 2004). International news coverage helps people stay informed about global events and have informed political preferences (Aalberg et al., 2013). Media coverage of international events shapes public opinions about controversial issues (Hoewe, 2018; Wanta et al., 2004).

Yaxin Dai: daiyaxin@bfsu.edu.cn
Xigen Li: lixigen@shu.edu.cn
Date submitted: 2023-03-16

Copyright © 2023 (Yaxin Dai and Xigen Li). Licensed under the Creative Commons Attribution Non-commercial No Derivatives (by-nc-nd). Available at http://ijoc.org.
In the United States and other Western democracies, public opinion over a controversial issue frequently presents a polarized and bimodal distribution (Dunlap, McCright, & Yarosh, 2016; Miller, 2019), as a result of more media outlets taking a clear political stance (Bennett & Iyengar, 2008). However, in single-party regimes where media are tightly controlled by the state (Chen, 2017), public opinion on controversial issues, especially those politically sensitive ones, may present a unidirectional distribution of opinion extremity (Kostka, 2019), rather than opinion polarization.

Although the literature on opinion polarization in Western democracies has emphasized the influence of the media environment, it remains unknown to what extent exposure to different types of media combined with other cognitive factors would influence opinion extremity on controversial issues in authoritarian countries, such as China. Taking the opportunity of the U.S.–China trade dispute, we investigate how exposure to different types of media affects opinion extremity related to an international issue, and to what extent the cognitive factors of information processing mode and issue sophistication moderate the effect of media exposure on opinion extremity. The empirical results of the study answer the key questions on how opinion extremity is shaped by traditional and new media exposure under China’s single-party regime, and reveal how information processing mode moderates the relationship between media exposure and opinion extremity, and whether issue sophistication also has a moderating role in the process.

**Literature Review**

*The Effect of Media Exposure on Opinion Polarization*

The advancement of new media technologies more than the past three decades has resulted in the expansion of media channels and the establishment of an increasingly fragmented, high-choice media ecosystem (Bennett & Iyengar, 2008). Under such a media environment, individuals are exposed to information from various media platforms daily, and media exposure has a substantial influence on people’s cognitions, beliefs, and attitudes toward various issues (Neuman & Guggenheim, 2011; Potter, 2011; Potter & Riddle, 2007; Shehata & Strömbäck, 2014). However, whether dealing with domestic or international issues, people tend to expose themselves to information congruent with their predispositions (Westerwick, Johnson, & Knobloch-Westerwick, 2017) and ignore the information that disagrees with their opinions (Stroud, 2010). Selective exposure theories have been applied to explain how people’s opinions are affected in the media-saturated digital age (Stroud, 2017). Selective exposure to like-minded messages not only reinforces the preset opinions (Kobayashi & Ikeda, 2009) but also leads to opinion polarization (Johnson, Neo, Heijnen, Smits, & van Veen, 2020; Lu, Ray, Ha, & Chen, 2020), especially political polarization (Prior, 2013).

Opinion polarization refers to the degree of dispersion between opposing ideologies and issue opinions (Lee, Choi, Kim, & Kim, 2014). The distribution of polarized public opinion is marked by bimodality and a high degree of dispersion (DiMaggio, Evans, & Bryson, 1996). In the face of a controversial issue, individuals tend to hold divergent viewpoints based on their stances on that issue (Burton et al., 2021). When people disagree strongly with the opposite side and those disagreements escalate over time, opinion polarization occurs (Fiorina & Abrams, 2008; Leeper, 2014). In a fragmented environment with media taking a clear political stance (Bennett & Iyengar, 2008), individuals’ exposure to
opinionated information in favor of a particular political stance may lead to opinion polarization (Prior, 2013; Stroud, 2010). A study of American adults found that time spent on social media is indirectly associated with opinion polarization on China’s trade practices mediated by news consumption on social media (Lu et al., 2020). Support for the effects of media exposure on opinion polarization is plentiful (Prior, 2013; Stroud, 2010), but most of the studies addressed issues in Western society (Dunlap et al., 2016; Miller, 2019). How media exposure affects opinions of controversial issues in authoritarian regimes such as China has not yet been adequately addressed (Chen, 2017; Willnat, Tang, Shi, & Zhan, 2022).

**Opinion Polarization and Opinion Extremity**

In authoritarian regimes where media content is under constant government surveillance, the media effect on public opinion may differ from that in Western democracies. For example, the Chinese government not only censors dissent but also actively promotes their propositions through media to divert public attention from reaching a dissenting view (Creemers, 2017; King, Pan, & Roberts, 2017). The rather unified mainstream discourse in China thus may drive public opinion on controversial issues to fall in one direction, rather than two ends. As Kostka (2019) observes, Chinese citizens’ opinion on social credit systems presents a one-sided distribution, with just 1% reporting either strong or somewhat disapproval. In the case of the U.S.–China trade dispute, mainstream discourse in China is dominated by voices criticizing the United States for initiating the dispute and delegitimizing the U.S. actions (Chen & Wang, 2020).

Taking cues from Kostka (2019), this study ventures the argument that, given the rather unified mainstream discourse of the U.S.–China trade dispute and the rising nationalism in China (Zeng & Sparks, 2019), public opinion tends to present a one-sided distribution instead of a polarized bimodal distribution, with most people supporting the governmental stance. We will examine individuals’ opinions on this issue from the perspective of opinion extremity, instead of opinion polarization. Opinion extremity has been previously defined as the degree to which one’s opinion extends to the farthest point from neutrality (Wang, Guo, & Shen, 2011). But in the current study, opinion extremity is conceptualized as the extent to which one’s opinion reaches the strongest point of a one-sided view within the Chinese context—that is, to what degree one believes that the United States should be held responsible for the trade dispute.

In the Chinese context, opinion extremity, as a consequence of strict media control and a media environment that steers opinions in one direction, is more prevalent than opinion polarization because the range of opinions is skewed toward the government’s position in most politically sensitive issues such as U.S.–China trade dispute. Despite that, the views incongruent with the government’s standpoint would appear on online and social media. These dissenting views are often quickly blocked or removed, resulting in a dominant narrative aligned with the government’s stance (Kuang, 2018). Therefore, opinion extremity in the Chinese context tends to occur as an ultimate adherence to one side of a controversy. Opinion extremity and opinion polarization could both be measured on how the opinions extend from the central point to the farthest points of both directions of a controversy assuming both sides are free to express their views and are in a comparable situation. However, in the Chinese context, opinion extremity on a politically sensitive issue would appear as how far people’s viewpoints extend from the prevailing one-sided view, ranging from its initial position to the farthest point.
The Effect of Media Exposure on Opinion Extremity

Previous studies showed that media exposure had an impact on individuals’ opinions on global events (Hoewe, 2018; Wanta et al., 2004). Media exposure is therefore expected to affect people’s opinion extremity on international issues, such as the U.S.–China trade dispute. Studies found that the more cross-cutting information an individual is exposed to, the less extreme his or her opinion about a certain issue would be (Mutz, 2002); whereas exposure to homogenous information may have a positive effect on opinion extremity (Bennett & Iyengar, 2008; Sunstein, 2009; Wang et al., 2011).

The U.S.–China trade dispute as an international event with a huge impact on international relations and the economy has attracted much attention from different media outlets in China. Two types of media play a central role in informing the public of international events with messages of different nature. Studies showed that traditional media, including newspapers, television, and radio, worked as mouthpieces of the government and covered the dispute by relying on government news sources (Ha, Guo, & Chen, 2022), and supported governmental opinions (Ha et al., 2020; Hong & Zhang, 2020) with unified views of events and biased content (Gentzkow & Shapiro, 2010). Although traditional news media strive to expand their content distribution through new media platforms (Hong, 2012), their presence on new media platforms is quite limited with the content taking up a small proportion of the overall information online.

By contrast, on various platforms of new media, such as news websites, social media, and mobile media, diversified views could be disseminated and accessed (Hong & Zhang, 2020). Although the surveillance of online media content has been strengthened since the Xi administration (Creemers, 2017), the government is not able to monitor everything all the time, and media users explore all means to express their views through various online and social media platforms (Shen, Wang, Guo, & Guo, 2009). To evade the information filtering system, media users use various strategies to distribute information to avoid being blocked or removed immediately (Li, 2020). Online and social media thus offer a public sphere where people can share opinions alternative to or even critical of the official rhetoric (Shirky, 2011).

The research findings on the effects of media exposure on people’s attitudes and behaviors have been inconclusive. Although diversified information may be available online and on social media, the echo chamber effect suggests that people primarily seek out like-minded information to reinforce their predisposition (Garrett, 2009a). However, Atkin’s (1973) theory of informational utility proposes that people also consider the value of information when selecting what to consume. If the value of information outweighs the effort needed to obtain it, individuals are more likely to seek out diverse information (Atkin, 1985; Knobloch-Westerwick, Carpentier, Blumhoff, & Nickel, 2005). Research has confirmed the effect of information utility in choosing what information to access (Knobloch-Westerwick et al., 2005). When checking factual information through news stories, readers don’t necessarily skip the information incongruent with their predispositions; instead, people may extend their exposure to a wider range of information beyond what confirms their existing beliefs (Garrett, 2009b; Stroud, 2008).
As to the media coverage of the U.S.–China trade dispute, some of the Chinese audience were among those who actively sought information about the issue from diversified information sources. Whether they aligned with the stance of the Chinese government in the U.S.–China trade dispute, they were not content with the information of a narrow scope from the Chinese traditional media, and thus would intentionally seek alternative information to get ideas beyond what they could get from the mainstream media. Taken together, we proposed the following hypothesis:

H1: Traditional media exposure is a stronger predictor of opinion extremity than new media exposure.

**Issue Relevance and Information Sufficiency Gap as Predictors of Information Processing Mode**

In addition to the information that individuals are exposed to, how information is processed also plays an important role in affecting an individual’s opinion formation (Gürsoy, Chi, Lu, & Nunkoo, 2019). The heuristic-systematic model (HSM) is one of the most prevalent models of information processing that predicts an individual’s social judgments (Eagly & Chaiken, 1993). The HSM posits two parallel routes in processing information that will lead to different results (Eagly & Chaiken, 1993). With systematic information processing, individuals comprehensively evaluate the information about an issue to reach a valid assessment (Griffin, Dunwoody, & Neuwirth, 1999). By contrast, individuals who engage in heuristic processing often use superficial cues, such as social norms (Todorov, Chaiken, & Henderson, 2002), prior experiences, or existing knowledge to formulate their attitudes or perceptions (Trumbo, 2002).

Motivation and information sufficiency are two predictors of information processing mode (Eagly & Chaiken, 1993; Trumbo, 1999). Individuals who are highly motivated (Griffin, Neuworth, Dunwoody, & Giese, 2004; Trumbo, 1999, 2002) or hold insufficient information about an issue (Böhnner, Rank, Reinhard, Elnwiller, & Erb, 1998; Griffin et al., 1999) will adopt the systematic information processing mode, otherwise, the heuristic processing mode will be activated. Based on HSM, issue relevance and information sufficiency gap could predict an individual’s choice of information processing mode.

Issue relevance refers to “the extent to which the attitudinal issue under consideration is of personal importance” (Petty & Cacioppo, 1979, p. 1915). Those who are concerned that their personal interests, such as job security, might be affected by the U.S.–China trade dispute would invest more cognitive resources to process relevant information from different media channels (Johnson et al., 2020). Those of low relevance would rely on heuristic cues to form simple decisions.

Information sufficiency gap indicates what an individual has already known and the confident level of knowledge that an individual further wants to attain (Griffin, Neuworth, Giese, & Dunwoody, 2002). Individuals are keen to hold a confident level of information about a certain issue that is crucial to them (Griffin et al., 2004). Previous studies showed that a large information sufficiency gap tends to become a driving force in motivating individuals to devote more cognitive resources to systematic information processing (Böhnner et al., 1998; Griffin et al., 2002; Trumbo, 2002). When the perceived knowledge gap is small and a person feels that the information needs for a specific decision-making circumstance have
been satisfied, he or she would have little motivation to carefully process relevant information (Trumbo, 2002). We therefore proposed the following hypotheses:

**H2a:** *Issue relevance and information sufficiency gap positively predict systematic information processing.*

**H2b:** *Issue relevance and information sufficiency gap negatively predict heuristic information processing.*

**Information Processing Mode Moderating the Effect of Media Exposure on Opinion Extremity**

Despite the recent studies on how specific information processing mode may interact with certain information to influence opinion extremity (Asker & Dinas, 2019), how the information processing mode would interact with media exposure to affect opinion extremity has received little attention. The current study integrates the HSM into the examination of the relationship between media use and opinion extremity, and considers information processing mode as a moderator of the effect of media exposure on opinion extremity.

When individuals engage in systematic processing to analyze relevant information about the U.S.–China trade dispute, they are likely to consider viewpoints from various sources with different stances to form their opinions. The careful examination of information and different claims may stimulate reflective thinking (McLeod et al., 1999). Simply being exposed to diverse views does not necessarily indicate that the information is seriously evaluated in determining one’s final opinions (Lee et al., 2014); however, through systematic processing with more cognitive resources and efforts (Fiske & Taylor, 1991), people would acquire an overall picture of the issue and the rationales for both sides may scale down the likelihood of forming an extreme opinion. In the case of the U.S.–China trade dispute, systematic processing of various viewpoints could lead to a moderate viewpoint. The influence of media exposure on opinion extremity could thus be alleviated by systematic information processing.

On the other hand, heuristic information processing involves relatively simple decision-making rules that require fewer cognitive resources and effort to form opinions than systematic processing (Fiske & Taylor, 1991). In the case of the U.S.–China trade dispute, even if individuals are exposed to various claims with different stances, people who use heuristic processing may rely on information that is more easily accessible or understandable to formulate judgments on the trade dispute (Chen & Wang, 2020) such as that represented by the mainstream media (Todorov et al., 2002). Through heuristic processing, claims from government officials and social elites that emphasize the one-sided stance are likely to be reinforced to generate a more extreme opinion. The impact of media exposure on people’s opinion extremity is thus strengthened by heuristic processing. We thus propose the following hypotheses.

**H3a:** *Systematic information processing negatively moderates the effect of media exposure on opinion extremity.*

**H3b:** *Heuristic information processing positively moderates the effect of media exposure on opinion extremity.*
Individuals have different levels of comprehension of the same issue for various reasons. This is particularly true in the case of the U.S.–China trade dispute, a highly complex international issue. Given that people tend to hold different opinions on the U.S.–China trade dispute as a result of their varying comprehension, this study proposes that issue sophistication—the comprehensive mastery of an issue—may also influence one’s opinion extremity.

In political communication, political sophistication is defined as an assessment of an individual’s mastery of the intricacy of political issues (Gastil & Dillard, 1999; Rhee & Cappella, 1997). Politically sophisticated people have a superior capacity for organizing and processing political information (Gordon & Segura, 1997). We define those who are sophisticated in the U.S.–China trade dispute similarly. People who are sophisticated about trade disputes follow the issue closely with keen interest, have more knowledge about the issue, and handle related information effectively. Therefore, they would not view the trade dispute as an isolated issue but rather as an outcome of the long-term development of U.S.–China relations with various factors intertwined. They tend to have insightful opinions on the trade dispute’s origin, evolution, and impact.

Issue sophistication could have a direct impact on opinion extremity. Individuals with a high level of sophistication in the trade dispute possess more knowledge and have a more discerning understanding of the issue. They tend to examine the dispute holistically and objectively, rather than from the vantage point of either side, and are more likely to reach a rational judgment of the trade dispute. Previous studies found that increased political knowledge could raise political tolerance (Hall, 2018), therefore we argue that the sophisticates of the U.S.–China trade dispute will be more tolerant when confronted with extreme claims. Hence, we propose the following hypothesis:

**H4:** Issue sophistication negatively predicts opinion extremity.

Issue sophistication would not only affect opinion extremity directly but also work as a condition in affecting how media exposure influences opinion extremity. Previous studies indicate that political sophisticates hold more differentiated constructs about issues (Rhee & Cappella, 1997) and strong opinions based on their prior knowledge (Miller, Saunders, & Farhart, 2016), which make them less susceptible to media content (Zaller, 1992). Similarly, people with higher issue sophistication about the U.S.–China trade dispute may be less susceptible to media content as well since they probably have formed a coherent view of the issue. Individuals with low issue sophistication, on the other hand, are more prone to the media discourse consistent with the government’s stand. Therefore, this study proposes the following hypothesis:

**H5:** Issue sophistication negatively moderates the effect of media exposure on opinion extremity.

In summary, the relationship between media exposure, information processing mode, issue sophistication, and opinion extremity is illustrated in Figure 1.
Method

Following the approval of the Institutional Review Board, an online survey was conducted in July 2018 in China to test the hypotheses. The participants in this study are China’s general media users. The study was completed with the help of Epanel, a market research company, which had a pool of 1.78 million media users in more than 300 cities across China. A sample was randomly drawn from the pool with the consideration of a response rate of 10% for online surveys (Daikeler, Bošnjak, & Lozar Manfreda, 2019). The link to a questionnaire was sent to the respondents with a cover letter inviting them to fill out a questionnaire online. They were informed of the confidentiality of the survey. A total of 1,029 completed questionnaires were collected. Among the 1,029 respondents, 50.2% were male and 49.8% were female, with an average age of 24.19 (SD = 9.09). About 27.0% of the respondents had an associate degree or below and 60.3% had an undergraduate degree. The respondents came from almost all provinces of China. Since they were self-selected, they do not represent the general population in China in terms of demographics. However, the current study aimed to examine the multivariate relationships among factors influencing opinion extremity concerning the U.S.–China trade dispute instead of estimating the population parameters; hence, the findings from a sample of general media users would still be valuable for understanding the multivariate relationships (Basil, Brown, & Bocarnea, 2002).

Measurement

The measurements of the variables were adapted from previous studies, and each variable was checked with a reliability test to ensure internal consistency. The Chinese translation of the questionnaire was checked and validated by three bilingual researchers.
Media exposure was measured by asking how often a respondent accessed news about the U.S.–China trade dispute from two types of media including traditional media (1) newspapers, (2) television, and (3) radio; and new media (4) news websites, (5) social media, and (6) mobile news apps. Participants rated their frequency of access on a 5-point verbal frequency scale from never to always, producing an average score of traditional media exposure ($M = 3.07$, $SD = .92$, $\alpha = .73$), and a score of new media exposure ($M = 4.01$, $SD = .77$, $\alpha = .78$).

Systematic information processing was measured by a 6-item scale adapted from Griffin et al. (2002). Participants rated their responses on a 5-point Likert scale on items including "When I encounter information on the U.S.–China trade dispute, I am likely to stop and think it through," and "When the topic of the U.S.–China trade dispute comes up, I always try to learn more about it." The value of systematic information processing was calculated by averaging the six items ($M = 3.61$, $SD = .61$, $\alpha = .85$).

Heuristic information processing was measured by a 6-item scale adapted from Trumbo (2002). Participants rated their responses on a 5-point Likert scale on items including "When I come across information about the U.S.–China trade dispute, I rarely spend much time thinking about it," and "On the issue of the U.S.–China trade dispute, I am willing to place my trust in the experts." The six items were averaged to get the value of heuristic information processing ($M = 3.14$, $SD = .49$, $\alpha = .63$).

Issue relevance was measured by a 6-item scale. Participants rated their answers on a 5-point Likert scale on items including "U.S.-made goods become part of my life," and "The industry I work for benefits from U.S.–China trade." The items were averaged to get the value of issue relevance ($M = 2.31$, $SD = .88$, $\alpha = .88$).

Information sufficiency gap was assessed by the question "How much more knowledge and information do you think you need to achieve an adequate understanding of the U.S.–China trade dispute?" Participants indicated their answers on a 10-point scale ranging from low to high ($M = 5.96$, $SD = .174$).

Issue sophistication was measured by 10 items using a 5-point Likert scale about how attentively participants followed trade issues and how well they understood the trade disputes. Participants rated their answers on items including "I am drawn to a foreign trade dispute as soon as it starts," and "I know how a foreign trade dispute intertwines with other issues." The items were averaged to get the value of issue sophistication ($M = 3.39$, $SD = .69$, $\alpha = .91$).

Opinion extremity about the U.S.–China trade dispute was measured by four items showing how far one assents to the one-sided views aligning with the Chinese government's stance, holding the United States responsible for the U.S.–China trade dispute. Participants indicate their stand on a 5-point scale (1 indicates a low agreement, and 5 indicates a high agreement) on the items: "United States pushes hard to gain from U.S.–China trade by unfair trade"; "United States creates all the problems in U.S.–China trade"; "United States is the party to be blamed for the U.S. trade deficit"; and "United States never follows the principles of fair trade in U.S–China trade." The items were averaged to get the value of opinion extremity ($M = 3.59$, $SD = .81$, $\alpha = .85$).
Age, gender, education, and income were included as control variables.

Results

A set of hierarchical regression analyses was applied to test the effects of media exposure and issue sophistication on opinion extremity with information processing mode and issue sophistication as moderators. Demographic variables were entered in the first block. Traditional and new media exposure were entered in the second block to test the main effect. Systematic processing, heuristic processing, and four interaction terms with traditional media exposure and new media exposure were entered in the third block to test the moderation effect of information processing mode. Issue sophistication and two interaction terms with traditional media exposure and new media exposure were entered in the fourth and fifth blocks to test the direct and the moderation effect of issue sophistication respectively. The predictors were mean-centered to form the interaction terms. Overall, the demographic variables had no significant effect on opinion extremity ($R^2 = .008, p = .094$); however, it is worth noting that education negatively predicts opinion extremity ($\beta = -.074, p = .026$; Table 1).

Table 1. Regression Analysis of Predictors of Opinion Extremity ($N = 1,029$).

<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
<th>Model 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>-.018</td>
<td>.007</td>
<td>.018</td>
<td>.025</td>
<td>.024</td>
</tr>
<tr>
<td>Age</td>
<td>.031</td>
<td>.027</td>
<td>.033</td>
<td>.033</td>
<td>.039</td>
</tr>
<tr>
<td>Education</td>
<td>-.074*</td>
<td>-.084*</td>
<td>-.063</td>
<td>-.065*</td>
<td>-.065*</td>
</tr>
<tr>
<td>Income</td>
<td>.027</td>
<td>-.003</td>
<td>-.026</td>
<td>-.029</td>
<td>-.030</td>
</tr>
<tr>
<td>Traditional media exposure</td>
<td>.108**</td>
<td>.036</td>
<td>.031</td>
<td>.031</td>
<td></td>
</tr>
<tr>
<td>New media exposure</td>
<td>.089*</td>
<td>.025</td>
<td>.019</td>
<td>.024</td>
<td></td>
</tr>
<tr>
<td>Systematic processing</td>
<td></td>
<td>.114**</td>
<td>.079</td>
<td></td>
<td>.072</td>
</tr>
<tr>
<td>Heuristic processing</td>
<td>.162***</td>
<td>.157***</td>
<td>.155***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Systematic * traditional</td>
<td>.101**</td>
<td>.102**</td>
<td>.097*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Systematic * new</td>
<td>-.127**</td>
<td>-.127**</td>
<td>-.199***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heuristic * traditional</td>
<td>.025</td>
<td>.024</td>
<td>.026</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heuristic * new</td>
<td>-.024</td>
<td>-.022</td>
<td>-.023</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Issue sophistication</td>
<td></td>
<td></td>
<td>.057</td>
<td>.071</td>
<td></td>
</tr>
<tr>
<td>Sophistication * traditional</td>
<td></td>
<td></td>
<td></td>
<td>.005</td>
<td></td>
</tr>
<tr>
<td>Sophistication * new</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.096</td>
</tr>
<tr>
<td>$R^2$</td>
<td>.008</td>
<td>.034**</td>
<td>.089**</td>
<td>.090**</td>
<td>.094**</td>
</tr>
<tr>
<td>Adj. $R^2$</td>
<td>.004</td>
<td>.028**</td>
<td>.078**</td>
<td>.079**</td>
<td>.080**</td>
</tr>
<tr>
<td>$R^2$ change</td>
<td>.008</td>
<td>.026**</td>
<td>.055**</td>
<td>.001</td>
<td>.004</td>
</tr>
</tbody>
</table>

*p < .05, **p < .01, ***p < .001.

Note. All regression coefficients reported are standardized.

H1 proposed that traditional media exposure is a stronger predictor of opinion extremity than new media exposure. Both traditional exposure ($\beta = .108, p = .002$) and new media exposure ($\beta = .
.089, \( p = .011 \) positively predicted opinion extremity. However, Fisher’s z-score transformation showed that the difference between the two regression coefficients was not statistically significant (\( z = .43, p = .667 \)). H1 was not supported.

H2a and H2b tested the effects of issue relevance and information sufficiency gap on information processing mode by two sets of hierarchical regression analysis, with systematic processing and heuristic processing as dependent variables respectively. Systematic processing was positively predicted by both issue relevance (\( \beta = .245, p < .001 \)) and information sufficiency gap (\( \beta = .188, p < .001 \)). H2a was supported. Issue relevance positively predicted heuristic processing (\( \beta = .282, p < .001 \)), while information sufficiency gap was not a significant predictor of heuristic processing (\( \beta = -.056, p = .064 \)). H2b was not supported (Table 2).

### Table 2. Regression Analysis of Predictors of Information Processing Mode (N = 1,029).

<table>
<thead>
<tr>
<th></th>
<th>Systematic information processing</th>
<th>Heuristic information processing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>-.117***</td>
<td>-.040</td>
</tr>
<tr>
<td>Age</td>
<td>.051</td>
<td>-.012</td>
</tr>
<tr>
<td>Education</td>
<td>.036</td>
<td>-.048</td>
</tr>
<tr>
<td>Income</td>
<td>.165***</td>
<td>.069*</td>
</tr>
<tr>
<td>R²</td>
<td>.048***</td>
<td>.007</td>
</tr>
<tr>
<td>Adj. R²</td>
<td>.045***</td>
<td>.003</td>
</tr>
<tr>
<td>Issue relevance</td>
<td>.245***</td>
<td>.282***</td>
</tr>
<tr>
<td>Information sufficiency gap</td>
<td>.188***</td>
<td>-.056</td>
</tr>
<tr>
<td>R²</td>
<td>.144***</td>
<td>.085***</td>
</tr>
<tr>
<td>Adj. R²</td>
<td>.139***</td>
<td>.079***</td>
</tr>
<tr>
<td>R² change</td>
<td>.096***</td>
<td>.078***</td>
</tr>
</tbody>
</table>

\*p < .05, **p < .01, ***p < .001.

Note. All regression coefficients reported are standardized.

H3a proposed negative moderation effects of systematic processing in predicting opinion extremity by traditional and new media exposure. The interaction term of systematic processing and traditional media exposure was a significant positive predictor of opinion extremity (\( \beta = .101, p = .007 \)), as opposed to hypothesis 3a. The interaction term of systematic processing and new media exposure had a significant negative effect on opinion extremity (\( \beta = -.127, p = .001 \)). Although systematic information processing negatively moderated the effect of new media exposure on opinion extremity, it is not the case with the relationship between traditional media exposure and opinion extremity. H3a was thus partially supported.

H3b proposed positive moderation effects of heuristic processing in predicting opinion extremity by traditional and new media exposure. The interaction effect of heuristic processing and traditional media exposure on opinion extremity was not significant (\( \beta = .025, p = .516 \)). The interaction term of heuristic processing and new media exposure also had no significant effect on opinion extremity (\( \beta = -.024, p = .
.526). Heuristic processing moderated neither the effect of the traditional media exposure on opinion extremity, nor the effect of new media exposure on opinion extremity. H3b was not supported.

H4 proposed that issue sophistication negatively predicts opinion extremity. The results of the hierarchical analysis showed that issue sophistication was not a significant predictor of opinion extremity (β = .057, p = .205). H4 was not supported.

H5 proposed negative moderation effects of issue sophistication in predicting opinion extremity by traditional and new media exposure. The interaction effect of issue sophistication and traditional media exposure on opinion extremity was not significant (β = .005, p = .927). The results also showed that the interaction term of issue sophistication and new media exposure had no significant effect on opinion extremity (β = .096, p = .069). H5 was not supported.

A summary of the results is provided as follows (Table 3).

**Table 3. Summary of Results.**

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1: Traditional media exposure is a stronger predictor of opinion extremity than new media exposure.</td>
<td>Not supported.</td>
</tr>
<tr>
<td>H2a: Issue relevance and information sufficiency gap positively predict systematic information processing.</td>
<td>Supported.</td>
</tr>
<tr>
<td>H3a: Systematic information processing negatively moderates the effect of media exposure on opinion extremity.</td>
<td>Partially supported.</td>
</tr>
<tr>
<td>H3b: Heuristic information processing positively moderates the effect of media exposure on opinion extremity.</td>
<td>Not supported.</td>
</tr>
<tr>
<td>H4: Issue sophistication negatively predicts opinion extremity.</td>
<td>Not supported.</td>
</tr>
<tr>
<td>H5: Issue sophistication negatively moderates the effect of media exposure on opinion extremity.</td>
<td>Not supported.</td>
</tr>
</tbody>
</table>

**Discussion**

This study tested a model of predictors of opinion extremity. Although the key propositions about the effects of media exposure on opinion extremity were supported, several hypotheses concerning information processing mode and issue sophistication were not supported. The possible reasons for unsupported hypotheses could be the nature of the information delivered by media in the Chinese context that created an environment wherein the alternative views did not surface and information processing mode would not function normally based on represented public opinion. In addition, the U.S.—China trade dispute as a complex issue and the self-reported measure of issue sophistication could also be sources for the deviation of hypothesis testing results. The following discussions of the results attempt to provide further explanations of the unsupported hypotheses and their implications.
Despite that both traditional media exposure and new media exposure affected opinion extremity, contrary to the hypothesis, traditional media exposure was not a stronger predictor of opinion extremity than new media exposure. The U.S.–China trade dispute as a sensitive issue was highly one-sided fueled by mainstream discourse and rising nationalism in China. Regardless of the level of media exposure, opinion extremity as a prevailing consequence varied little in the Chinese context. But when the nature of controversial issues changes and a wider range of different opinions could be expressed on the issues, the effects of exposure to different types of media on opinion extremity could diverge. For example, genetically modified food might be an issue that two sides of opinions could be delivered through different media platforms (Marques, Critchley, & Walshe, 2015). Exposure to different types of media could produce variant effects on opinion extremity (Jin, Schaub, Tosun, & Wesseler, 2022). More research is then needed to investigate how media exposure to debatable issues that are not one-sided in China would affect the processing mode that people tend to engage with, which may further affect the level of opinion extremity.

Two cognitive factors, information processing mode and issue sophistication, were introduced as moderators of the effect of media exposure on opinion extremity. The finding about systematic processing as a moderator suggests that the information presented by different types of media could alter the moderating role of systematic information processing. More mental efforts are rendered in systematic information processing, which may lead to more rational thinking and less opinion extremity. However, the nature of the information presented by the traditional media and new media is different. The diversified information from new media puts systematic information processing into full play. However, with the homogenous viewpoints on traditional media, systematic information processing could not take its full advantage in initiating rational thinking and reducing opinion extremity. In addition, considering that systematic processing had a positive moderating effect on the relationship between traditional media exposure and opinion extremity, we may speculate that systematic processing of media content could also echo the views presented by the traditional media, and enhance extreme opinions instead of producing neutralized views. Whereas in the case of new media, systematic information processing did play a moderating role in initiating rational thinking to alleviate opinion extremity.

Heuristic processing showed no moderating effects on the relationship between media exposure and opinion extremity. The result poses a question on its role in processing information of different nature. When the information is presented by traditional media about the U.S.–China trade dispute, the prominent one-sided views cognized by heuristic information processing are expected to enhance the effect of traditional media exposure on opinion extremity. However, the unitary information from the traditional media might negate the role of heuristic information processing. When facing more diversified information from new media, heuristic information processing makes it hard to unscramble the information to produce a moderating effect. How heuristic information processing would work with information of different nature to produce a moderating effect and increase opinion extremity needs more research to delineate.

Issue sophistication is neither a significant negative predictor of opinion extremity nor a negative moderator of the effect of media exposure on opinion extremity. These results could probably be attributed to the complex nature of the issue at stake. The U.S.–China trade dispute is an area
beyond the knowledge scope of most people. The self-reported subjective measurement of issue sophistication on the U.S.–China trade dispute may not gauge what people understand about the issue and reflect their mastery of the intricacy of trade issues. People tend to overestimate their own cognitive and behavioral capacities (Dunning, 2011), and such overestimation could distort the relationship between issue sophistication and opinion extremity.

The measurements of some key variables in this study (i.e., information sufficiency gap and issue sophistication) are respondents’ subjective perceptions, instead of objective measurements. Perceptual measures offer an easy way to gauge how the respondents evaluate their capacity or performance, and the behavioral outcomes are often influenced by respondents’ subjective evaluations (Ferguson & Bargh, 2004). For example, information sufficiency gap as a perceptual measure reflects individuals’ subjective evaluation of their current and confident knowledge levels, resulting in a gap between the two, whereas objective measures of information sufficiency gap would be cumbersome. However, differences do exist between perceptual and objective measures, which may produce bias by psychological factors like positive illusions, cognitive consistency, and self-serving attribution. The findings might vary if different methods are used to measure the same concept. The impact of the psychological reflections on subjective measurements depends on the research context and other variables being measured at the same time. Therefore, the findings of this study using subjective measures should be verified in future studies using objective measures.

This study differentiated opinion extremity, a largely neglected unimodal distribution of public opinion, from opinion polarization under a political regime and media system other than those in Western society. Although public opinion on important political issues has been analyzed by taking into account the political structures and information environment as context factors (Zaller, 1992), this study went beyond the current literature by examining the formation of extreme opinions from the interaction of media exposure, information processing mode, and issue sophistication in a highly controlled and unified media environment where alternative voices on important social issues are often suppressed and no opinion polarization would result from media coverage of a politically sensitive controversial issue. Under this homogenous media environment, the influencing factors of the opinion extremity are especially worth exploring when new media join the mainstream media in distributing information and influencing public opinion. Traditional and new media exposure played similar roles in raising opinion extremity with information varied in modality and diversity, whereas people employ different information processing modes to handle media content from various sources. These findings confirm the approach to integrating theories of information processing with media effect theory to examine the effect of media exposure to various news sources in the digital age and extend the understanding of the mechanism of public opinion formation in a social context under tight media control.

There are several limitations of the study. First, the cross-sectional survey cannot demonstrate causality. The reverse argument could be tenable as well: people with more extreme opinions on the U.S.–China trade dispute are more likely to engage in various media exposure. However, as Lee (2016) posits, the more probable scenario is that media exposure and attitude extremity reinforce each other within a controversial context. Second, the HSM posits that heuristic and systematic processing can occur concurrently or even interact with each other (Zhang, Zhao, Cheung, & Lee, 2014). The interactions
between the two information processing routes as additivity, attenuation, and bias effect (Chen & Chaiken, 1999) which were not examined in this study, could be investigated further. Third, both heuristic and systematic processing showed different levels of positive moderating effect on the relationship between traditional media exposure and opinion extremity. These results possibly suggest that the process of media exposure influencing opinion extremity may have its specific mechanism in homogenous media environments such as in China. How media content would be processed to influence opinion formation could be further examined in future studies.

**Conclusion**

The empirical results of the study show how opinion extremity, instead of opinion polarization, on an important international issue was shaped by exposure to the traditional and new media in the Chinese context of strict media control. Information processing mode played variant moderating roles in the process that opinion extremity was influenced by media exposure. The findings of the current study contribute to the understanding of the formation of extreme opinions on controversial issues in the following aspects:

First, the study enriches the understanding of how exposure to traditional and new media produces the unimodal distribution of opinion extremity in an authoritarian regime instead of the bimodal distribution of opinion polarization as in Western democracies. Contexts such as political structures and the information environment are important factors shaping public opinion. In cases of authoritarian countries where the mainstream discourse on a contentious issue is generally homogenous and relatively devoid of alternative voices, public opinion distribution would converge despite that people are exposed to less homogeneous information delivered by new media compared to traditional media.

Second, this study proposes an analytical framework to examine the predictors of opinion extremity and considers the interaction of media exposure, information processing mode, and issue sophistication. The results extend the understanding of how different information processing modes interact with exposure to media of varied nature in a strictly controlled media environment to shape opinion extremity. The finding of the effect of new media exposure on opinion extremity echoes scholars’ argument that cognitive features such as information processing mode are more important than information characteristics in affecting public opinion formation (Lee, 2016; Leeper, 2014).

Last, the analytical framework of extreme opinion formation proposed in this study and the research findings raise questions on represented and latent opinions in the contexts of authoritarian countries. When opinions are freely expressed, opinion polarization occurs as a result of represented opinions. Opinion extremity would arise when the opinions of the other side are suppressed under the authoritative regime. The latent opinions of the other side on controversial issues in an authoritative context and their relationship with opinion extremity are warranted for further investigation to fully understand the process of public opinion formation.
References


