How Propaganda Moderates the Influence of Opinion Leaders on Social Media in China

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Social media provide a free space for opinion leaders (OPLs) to influence public opinion in contemporary China, where OPLs need to compete with the powerful propaganda machine. So how much influence can OPLs exert on the public under the shadow of authoritarianism? A survey experiment of 1,326 Internet users in Beijing found that OPLs guide respondents' policy opinions and encourage information sharing when the OPLs are not perceived to be a part of the propaganda campaign. However, when audiences believe that OPLs are the agents of propaganda, such effects disappear. The results reveal that the OPLs' effects are conditioned by the authoritarian institutional context in which the public discussion takes place. We conclude that such effects have ambiguous consequences in cultivating critical citizens.

Keywords: opinion leader, public opinion, propaganda, survey experiment, China, authoritarianism, public intellectuals

The spread of Internet services in China has empowered society by providing citizens with a greater opportunity to engage with autonomous activism (Yang, 2009; Zheng, 2007). One example is the

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emergence of opinion leaders (OPLs), who influence public opinion independently of the regime's control. They disseminate their opinions on public affairs directly to audiences via social media and online communities rather than the state-owned professional media. However, to the public, these OPLs are not always trustworthy. So when do Chinese audiences trust OPLs' ideas?

This article tries to answer this question by examining OPLs' interaction with the propaganda machine. In China, government propaganda and censorship are still pervasive despite the burgeoning of public discussion (Brady, 2009; MacKinnon, 2011). We propose an OPL-propaganda model, which argues that independent OPLs lose their influence when their opinions are in support of the government. It assumes that OPLs and the government are two "opinion producers" who disseminate their policy preferences to the public. They influence the public in two ways: (1) by guiding attitudes on policies and (2) by encouraging citizens to repost their opinions on social media. Moreover, citizens are aware that the government may use propaganda to manipulate them. When an OPL proposes an opinion, online users will examine whether it is consistent with the government's position. If so, their awareness of propaganda is piqued, and they may perceive the opinion to be hidden propaganda masquerading as an independent opinion. In these cases, policy approval and willingness to repost remain unaffected. In contrast, when OPLs propose ideas opposing government policies, the ideas are less likely to be perceived as propaganda and thus more likely to be accepted and reposted.

We used an online survey experiment to test the OPL-Propaganda Model. We randomly assigned opinion statements either endorsing or criticizing Beijing's new residential registration policy proposed in mid-2016. We randomly assigned the sources of these statements to two Chinese public intellectuals on opposing ends of the ideological spectrum. After respondents read these statements, we asked how much they approved of the policy and whether they were likely to repost the statements.

The results partially confirm our model's prediction of the OPLs' effect. When people read a critical opinion from an OPL, their policy disapproval increased to a greater degree compared with when they read a critical opinion from an anonymous source. The influence of OPLs disappeared when people read supporting opinions, and both policy approval and willingness to repost decreased compared with those who read the very same opinion from an anonymous source. This suggests that the awareness of propaganda does moderate the effect of OPLs, but its negative effect goes slightly beyond our expectation. We suspect that this is because people are so annoyed by the propaganda that they want to accept the opposite of what the propaganda advocates.

This study contributes to communication studies by testing OPLs' effects in an authoritarian setting. We confirmed that the institutional context, that is, the massive propaganda machine created by the Communist regime in China, could condition the effects of OPLs on the opinions of the general public. Our findings indicate that the presence of propaganda disadvantages the government in the persuasion battle against independent OPLs. If citizens are aware that the government is using propaganda to influence them, they cannot be easily persuaded by the government's plan.

The implications of our findings are twofold. First, the rejection of the propaganda's position is not equivalent to "critical citizenry" (Lei, 2011). Rather, it shows the radicalization of attitudes toward the

government, which may impair citizens' capability to recognize desirable public policies. This result also echoes similar research on opinion polarization in democracies (Druckman, Peterson, & Slothuus, 2013). Second, independent OPLs facilitate the dissemination of varied opinions that counterbalance the government's prevalent propaganda, which may help citizens to think more critically.

Theoretical Framework

Literature Review

The concept of OPLs is one of the oldest theories in communication studies. Within a certain social group, OPLs have advanced interest and knowledge of public affairs, which they can use to create their own interpretation and then spread it to other citizens (Katz & Lazarsfeld, 1966; Weimann, 1994). OPLs can influence the opinions, attitudes, motivations, and behaviors of other citizens (Adams & Ezrow, 2009; Hellevik & Bjørklund, 1991; Li, Ma, Zhang, Huang, & Kinshuk, 2013).

Social media have changed the landscape of communication but not the role of OPLs as intermediaries between the professional media and ordinary citizens. Media content is still selected and filtered by OPLs before reaching the general public (Karlsen, 2015; Nip & Fu, 2016). However, the personal attributes of OPLs have changed, as their influence now relies more heavily on professional qualifications rather than socioeconomic status (Chang, 2013).

Thanks to social media, ordinary audiences can now directly reach professionals such as journalists, actors, athletes, musicians, politicians, academics, and entrepreneurs by "following" their social media accounts. Audiences no longer need to rely on traditional OPLs who are embedded in their offline social network. The meaning of OPLs has now expanded to include experts outside of acquaintance-based social network circles (C. Chen, 2014; Nwokora, 2015; Wilson, 2015; S. Wu, Hofman, Mason, & Watts, 2011). Especially for social issues, it is essential that media professionals and scholars with relevant expertise provide opinions (C. Chen, 2014).

In China, social media facilitate chances for experts and professionals to express their independent viewpoints free from the strict control of the Communist Party. Independent OPLs are viewed as weapons of empowerment for people to resist authoritarian rule. Tong and Lei (2013) argue that microblogging enables the emergence of public intellectuals—such as OPLs—who "play decisive roles by acting as societal opinion leaders" (Tong & Lei, 2013, p. 300). It allows them to challenge the regime's ideological dominance over public opinion. In other words, the emergence of the Internet allowed for the spread of ideas and opinions independent of the control of the official propaganda campaign. However, other scholars suggest that such independent opinions have very limited effects. Nip and Fu (2016) argue that individual citizens have limited influence unless they are supported by news organizations. The government also actively embraces and controls the information revolution in China (Sullivan, 2013). For example, the government has mobilized its agents to engage anonymously in online discussions and produce ostensibly spontaneous pro-regime commentary (Han, 2015b). It also employs a large number of censors to monitor social media (King, Pan, & Roberts, 2013, p. 326).

This disagreement over the effects of independent opinions in China is rooted in a long-term debate on the extent to which the Internet is a liberation tool for nondemocracies (Diamond, 2010). Optimists focus on online activism, arguing that the Internet empowers society and facilitates collective action against authoritarian rule (Esarey & Xiao, 2008; Yang, 2009; Zheng, 2007). Pessimists focus on state control, arguing that the government may still have a firm control over information (Gunitsky, 2015; MacKinnon, 2011; Morozov, 2011; Sullivan, 2013). For example, Stockmann (2010) finds that propaganda dispersed through marketized online media channels is still an effective method of influencing citizens' opinions.

This debate remains unsettled because both sides have valid evidence to support their theories. On the one hand, the state implements multiple methods to guide public opinion and repress independent voices. On the other hand, independent social activists try to resist state control by adopting information technology in flexible ways. Consequently, the true impact of the Internet is jointly generated by both state and independent voices. However, we still have no theory as to how these two factors interact with each other and how they impact public opinion. This article aims to study that interaction by examining how OPLs' effects are moderated by propaganda.

Direct Effects: OPLs on Citizens' Policy Preference

We propose the OPL-propaganda model, a theoretical model to explain how the political opinions of ordinary citizens are jointly shaped by the state and independent OPLs on social media. There are three main actors in this model: the government, OPLs, and ordinary citizens. For a complex policy issue, the authoritarian government will form a clear position and mobilize the propaganda machine to persuade the public to accept that position. Although China has partially marketized its media sector, the regime still controls a massive operation to exert effective propaganda via various outlets (Brady, 2009; King, Pan, & Roberts, 2017; Shambaugh, 2007). In the context of social media, this includes news articles from official media, pro-government expert analyses, and anonymous online comments posted by state-hired agents (i.e., the "fifty-cent army").

OPLs are defined as individuals whose opinions (1) apparently do not represent any organizations, even ones free from government manipulation, and (2) have a certain level of expert credibility to influence public opinions. They tend to be educated elites with specialized expertise who make public comments on social issues. In other words, in the public opinion market, OPLs put forward policy viewpoints just like the government does.[3]

OPLs have emerged as a result of information technology development, especially social media. On the one hand, social media provide a platform for individual OPLs to spread ideas to the public. On the other hand, the Chinese Communist Party used to have complete control over all professional media outlets, but

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[3] One should note that our model is a simplification of reality. The purpose is to model the potential competition of opinions between OPLs and the government. However, OPLs may not always produce opinions, becoming instead the hubs of opinion flows. In such cases, OPLs are still able to provide potentially independent policy preferences to the public discussion by magnifying voices different from the government's.

now its censorship on social media is more selective (Brady, 2009; King et al., 2013, p. 326; Shao, forthcoming). Thus, our concept reflects how OPLs' ideas develop in the current media environment within a nondemocratic context.

OPLs' opinions are not homogeneous; some choose to oppose the regime (regime opponents) while the others support it (regime endorsers; Han, 2015a). Finally, ordinary citizens (opinion followers) are exposed to the opinions of the state and OPLs. They can choose which opinion to believe, and it will then form part of their own policy viewpoint. They may also express their thoughts on the opinions they read and share them via social media.

In our model, the state and its allies intend to use propaganda to convince the public and discredit its opponents. However, previous studies show people have less confidence in the government when they are exposed to propaganda (X. Chen & Shi, 2001; Fallows, 2008). Consequently, when citizens perceive an opinion to be a piece of propaganda, they may think it is merely falsified conformity to the regime, as Kuran (1991) finds in Communist countries. Thus, the opinion is not reliable, and the *awareness of propaganda* will damage government support. Awareness of propaganda should be differentiated from exposure of explicit "hard" propaganda (Huang, 2015). It describes how citizens perceive subtle propaganda disguised as independent information.

In contrast, people are more likely to accept an opinion if they believe it is independent of the state's influence. For example, citizens are more likely to be affected by commercial media outlets rather than party "mouthpieces" (Stockmann, 2010; Stockmann & Gallagher, 2011). This presents a key problem: Since the government usually hires agents to speak on its behalf, how can citizens reliably identify whose opinion is independent?

We argue there are two possible methods. One is by looking at the OPLs' background to check if they are public employees. However, this method turns out to be ineffective, as some public employees, such as university professors, may propose independent opinions deviating from the government's position. Additionally, some OPLs may not be hired (ostensibly) by the government and may be branded as independent experts but have incentives to follow the propaganda line.

A more effective way to identify independent OPLs is to use their standpoint on the issue as an indicator. Since the government hopes to promote its agenda to the public, it tends to hire OPLs to endorse the government's plan. Therefore, OPLs who support the government are more likely to be identified as government agents.

For example, on the *Zhihu* question-and-answer website, a question asked why people speaking for the government are often labeled as government-hired "fifty-cent armies." One top-rated answer highlights the logic of government-agent cognition:

> Normally, the government is maintained by taxation. It is designed to serve the tax-payers. Doing a good job is its obligation; so there is no need to praise them. If the government has done many things wrong, criticism will grow. So usually nobody will have

the time to dig deep to find the government's achievement and compliment it . . . *unless they are the relatives of the government or get benefits from the government.*[4]

Thus, when OPLs are recognized as a part of propaganda machine, their words will be discredited. In contrast, an OPL who criticizes the government's plan is unlikely to be perceived as a propaganda agent; the OPL's words will be taken more seriously.

Of course, such a judgment is not always accurate. After all, not everyone supporting the government's position is a government agent. Online users also complain that they are unfairly accused of being in the fifty-cent army just because they have defended the government.[5] Nevertheless, since citizens lack alternative ways to effectively identify covert propaganda, rejecting pro-government opinions can be a viable method of protecting oneself from being manipulated by the government.

To summarize, the OPLs in authoritarian regimes, like their counterparts in democracies, can provide opinions to guide citizens' perspectives. However, such effects are moderated by citizen *awareness of propaganda*. If citizens believe that these OPLs are in fact a part of the regime's propaganda campaign, they will not accept their opinions. The cue for propaganda awareness is usually whether the opinion is supportive of the regime.

According to our theory, we generated two testable hypotheses.

H1:   In China, a citizen's view of government policy will follow an independent OPL as long as the leader's opinion is opposing the government's position.

H2:   When the opinion is supportive of the government, the presence of the OPL has no effect on people's view of policy.

Indirect Effect: OPLs on Reposting Behavior

OPLs on social media have more influence than just directly guiding individual citizens' opinion. Their reputation as OPLs may also encourage audiences (or "followers," on social media) to repost their opinions, thereby disseminating them across the broader social media network in a very short time to the largest possible population (Tong & Lei, 2013). Thus, the presence of independent OPLs may elevate the salience of an issue and accelerate the dissemination of opinions. We refer to this consequence as the indirect effects of OPLs.

Like direct effects on policy preferences, we believe the indirect effects of OPLs on reposting behavior are also moderated by the presence of propaganda. Opinions supportive of the government's position are often widely propagandized; therefore, supportive opinions are likely to be interpreted as

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[4] Source: https://goo.gl/tFXmRy (emphasis by author)
[5] For example, see a complaint at https://goo.gl/BLRF3h

propaganda. In such cases, people's willingness to repost is unlikely to be affected by the presence of an OPL as they are unwilling to trust that the opinion is genuine.

In contrast, when the opinions are critical of the government, the presence of OPLs is very influential. The reputation of OPLs can provide credibility to such criticism, allowing the opinion to effectively discredit the government's propaganda. In other words, when OPLs criticize the government's agenda, they add much larger "marginal utility" to the opinion market compared with when they support the government. Therefore, the presence of OPLs when presenting critical opinions can increase people's willingness to repost such opinions.

H3:   Internet users are more likely to repost an opinion **critical** of the government if the opinion is from an independent OPL compared with that from an anonymous source.

H4:   When OPLs' opinions are **supportive** of the government, the presence of OPLs has no effect on people's willingness to repost.

In summary, the OPL-Propaganda Model predicts that the effects of OPLs in the context of social media and propaganda are consistent with a two-step opinion-flow model, in which OPLs directly change the attitude of their immediate audiences (Katz, 1957), as well as with a multiple-step model (Borondo, Morales, Benito, & Losada, 2015; C. Chen, 2014, in which OPLs indirectly influence audiences through the diffusion of their opinions around social networks, hence increasing "next level" awareness and acceptance.

In considering the influence of OPLs, our model suggests that Chinese social media users do not simply accept what OPLs say. The public's awareness of propaganda conditions the acceptance of new opinions. One limitation of this model is that it does not include the government's repressive behavior, such as censorship. This is because once the government uses censorship, public discussions on the targeted issue are removed from social media, and the effect of OPLs will be very limited. Therefore, this model can only be applied to policy issues the government allows the public to discuss.

Testing the OPL-Propaganda Model

In this study, we conducted an online survey experiment to test the OPL-Propaganda Model. In previous studies, three methods were frequently used by researchers to study OPLs. The conventional methods are surveys and in-depth interviews, asking respondents to identify OPLs (Lazarsfeld, Berelson, & Gaudet, 1968; Williams, 2013). The second method uses data mining to analyze the patterns of information diffusion on social media to identify OPLs by looking at the flow of information (Guan et al., 2014; Shi, Rui, & Whinston, 2014; Tang, Miao, Yu, & Quan, 2016). However, as these two methods are observational studies, they rely on real-world cases, which often suffer from endogeneity problems. For example, even though people admit they are influenced by OPLs, it is hard to separate the effect of the OPLs from the effect of the opinions they stand for.

Therefore, scholars also developed experimental methods that randomly assign opinions, attributed or unattributed to an OPL, to respondents (Boerman & Kruikemeier, 2016; Kruikemeier, van Noort,

Vliegenthart, & de Vreese, 2016). By experimental design, the effects of OPLs can be differentiated from their opinions. Previous studies have been conducted in businesses or democratic societies, but little research has been done within an authoritarian context like China. So this study used the experimental method to research how Chinese citizens are influenced by credible OPLs (public intellectuals) when the opinion itself is held constant.

Identification of OPLs and Propaganda

At the beginning of our experiment, respondents were asked to read relevant material regarding the Beijing government's new plan of residential registration.[6] Then they were randomly exposed to an opinion piece that either endorsed or criticized the policy.

The supportive comment/opinion (endorsement) was, "[The source says] The policy is very reasonable. Firstly, it could attract high-tech industries and labor. Additionally, it could control the population of the city, and ease the city's over-population burden."

The critical comment/opinion (criticism) was, "[The source says] The policy is too harsh. It excludes a lot of the immigrant population who devote themselves to Beijing. The labor pool will decrease and our living cost will rise."

We used the nature of the comment as a treatment of the awareness of propaganda. As mentioned earlier, noting opinions that support government policies is a good shortcut to detecting possible propaganda. If our theory is correct, people exposed to the supportive comments will have a higher chance of interpreting the opinion as propaganda. In contrast, respondents are more likely to interpret the critical comment as an independent opinion.[7] We also told the respondents that the comment came from a particular source. We created three different sources: one control group, which used an anonymous source, and two treatment groups, which used two well-known individual OPLs, as shown in Table 1.

However, there were two major challenges when determining the right choice of OPLs to successfully evaluate respondents' reactions. The first was maintaining a balance between the OPLs' popularity and their expertise. Experts on urban demography may not be famous OPLs. Without recognition, respondents will not comply with the treatment. On the other hand, if there is too strong a focus on popularity, an OPL's background may fail to convince the respondents of an opinion's credibility and value. The second challenge came from the fact that an OPL's political stance may potentially be a confounding factor. Some are famous for pro-regime positions, while others are known for liberal thoughts and tendencies to advocate Western democratic institutions, which may lead people to evaluate the OPLs by their ideological background rather than evaluate the opinion itself. Therefore, it was necessary to include OPLs that are representative of the spectrum of political ideology in China.

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[6] The materials are published by Netease, https://goo.gl/szX1sZ.

[7] An alternative way to manipulate propaganda is to use a Beijing official's comment as the source. Yet such design fails to capture the influence of an implicit propaganda, given its obvious stand.

Table 1. Survey Manipulation and Descriptive Statistics.

Group No.	Comment	Opinion Leader	Political Stand	Policy Approval [1–5]	Reposting Willingness [0–1]	Observation
1	Endorsement	None[a]	N/A	2.952 (1.039)	0.777 (0.424)[b]	210
2	Endorsement	He WF[c]	Pro-West[d]	2.632 (1.048)	0.703 (0.458)	209
3	Endorsement	Kong QD[e]	Statist[f]	2.938 (1.114)	0.741 (0.439)	243
4	Criticism	None	N/A	2.945 (1.180)	0.639 (0.481)	219
5	Criticism	He WF	Pro-West	2.502 (1.189)	0.731 (0.444)	227
6	Criticism	Kong QD	Statist	2.587 (1.154)	0.683 (0.466)	218

[a] Anonymous source: "There is a saying that . . ."
[b] For two dependent variables, the means are shown, and the standard deviations are in the parentheses.
[c] He Weifang, law professor in Beijing University (Weibo: http://weibo.com/weifanghe).
[d] Support the institution of liberal democracy in Western countries.
[e] Kong Qingdong, literature professor in Beijing University (Weibo: http://weibo.com/kqdpku).
[f] Support the rule of the Communist Party in China.

To overcome these challenges, we chose two OPLs who are also known as famous public intellectuals: He Weifang, a law professor from Peking University, known for his liberal stance and pro-Western ideology (hereafter, Pro-West), and Kong Qingdong, a literature professor from Peking University, known for his statist stance (hereafter, Statist).[8] Our chosen OPLs fulfill the ideological distinction that Chinese Internet users will recognize (A. X. Wu, 2014). Kong overtly demonstrates his anti-Western-democracy attitude and his admiration of Mao Zedong. Kong represents the statist wing in China's ideological spectrum, supporting the Communist Party's ideology. Contrastingly, He Weifang is famous for his view of creating an independent judicial system similar to those in liberal democracies, opposing the regime's principles. Therefore, these two public intellectuals cover a representative range of the ideological spectrum. In addition, neither of them is an expert in demography or registration (*Hukou*) policies, but both are famous for frequently making public comments on social and political issues. As of October 2016, He Weifang had 1.9 million followers on Sina Weibo, and Kong Qingdong had 2.9 million. In case some respondents did not know these intellectuals, we introduced them as professors at the famous Peking University as a cue of their expertise.

Measure of Policy Preference and Reposting Behavior

As the model predicts, OPLs may influence audiences in two ways: (1) by directly affecting policy preference and (2) by indirectly affecting their reposting behavior. We used respondents' degree of policy approval to measure their policy preference. After reading the opinion statement, respondents were asked, "Do you think the policy is harsh or reasonable?" using a 5-point Likert scale: the higher the score, the

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[8] He Weifang's position can be found at https://goo.gl/5sKa9X; Kong's stand can be found at https://goo.gl/op0kNJ.

higher the approval. They were also asked, "How much do you want to repost the comment?" to determine their willingness to repost an opinion. Responses were placed on a 4-point scale (1 = *Will not repost*, 2 = *Unlikely to repost*, 3 = *Likely to repost*, 4 = *Will repost*), which we recoded to a binary variable in the analysis.

One concern is that respondents may have a social desirability bias. First, respondents may become reluctant to publicly disapprove of the policy or to repost disparaging comments. However, the descriptive statistics show the opposite. The mean of policy approval is 2.76 of 5.00 (*SD* = 1.14), which means on average people did not approve of the policy. The average willingness to repost was 0.71 of 1.00 (*SD* = 0.453), meaning that for the entire sample, respondents had a 71% chance to repost. However, another concern arises that the social desirability bias may take the opposite effect: Respondents may find it desirable to disapprove of the policy and repost the negative comments. If this is true, it will negatively affect the accuracy of measuring the dependent variables. Since our independent variables are randomly assigned, it is unlikely that the social desirability issue can bias the effects of independent variables, that is, the appearance of OPLs.

Control Variables

We used a series of demographic and ideological questions to check the balance of each experimental group and controlled for these variables in our regression analysis. For example, previous studies found that the effect of OPLs is weak on those with an interest in politics (Jackson, 2008; Zaller, 1990), so we controlled for political efficacy and political awareness. Because the policy would benefit those with residential status (*Hukou*) in Beijing, we controlled for self-reported ownership of a Beijing *Hukou*. Three questions were used to measure the respondents' ideological leanings on political, economic, and cultural issues. We also controlled for respondents who have relatives working in the government, for respondents who have a conflict with the government, and for how much they admire the government's performance. Finally, we controlled for a set of demographic variables such as gender, age, education, monthly income, and Communist Party membership. For the analysis of reposting willingness, we controlled for the degree of policy approval and comment approval. The detailed list of questions for the control variables are provided in the online appendix (OA) at https://goo.gl/3Adbyh.

Results

The survey was conducted from September 11, 2016, to September 27, 2016, via a Chinese crowdsourcing survey website, KurunData. Recruiting survey respondents from a crowdsourcing website has been widely used by social scientists in both the United States and China (Berinsky, Huber, & Lenz, 2012; Huang, 2014). More importantly, since this study wants to understand OPLs' effects on social media, it is reasonable to directly survey online users.

Respondents were self-reported Beijing residents. To make sure the respondents were informed about the policy and the opinions, we removed the responses who spent less than 10 seconds on the policy

materials.[9] This method yielded 1,326 effective responses for analysis; of this number 1,301 answered all the demography questions. All control variables achieved balance across the experimental groups, indicating successful randomization.[10] The respondents came from a variety of age, income, and education levels, although they were heavily skewed to a highly educated population. The advantages are that highly educated users are more likely to be social media users, to pay attention to public affairs, and to recognize the OPLs used in our survey. According to the 2016 Weibo User Report, 77.8% of Weibo users have a college degree or above.[11] Therefore, although our finding may not apply to the general population of the Chinese Internet (with more than 50% who have junior high school education or lower), it could apply to social media users who have the most frequent exposure to online OPLs. The highly educated group is also most likely to participate in public discussions and form opinions. Therefore, we believe that the OPL-Propaganda Model is useful in understanding the formation of Chinese public opinion. However, we expect future studies will test our theory with a lower educated population.

OPLs on Policy Approval

Figure 1 presents the difference of the average degree of policy approval between the control group and the treatment groups. The left panel shows that when respondents read the opinion endorsing the policy, the attribution of OPLs to that opinion changed respondents' policy approval. The first spike on the left shows the *t*-test results of the policy approval differences between the control group and the two treatment groups. It illustrates that when people were told that the opinion supportive of the policy was from an OPL, their policy approval was *lower* compared with those who were told the very same opinion was from an anonymous source. The middle spike only compares the control group with the Pro-West OPL, revealing that the Pro-West intellectual's endorsement generated a significant detrimental effect on policy approval. The third spike in the left panel shows the Statist OPL, who had little effect on policy approval.

The right panel of Figure 1 shows the OPLs' effect on policy approval when people read the opinion opposing the policy. The three spikes all demonstrate that exposure to an OPL's criticism lowered policy approval more compared with exposure to the anonymous criticism, regardless of ideological stance. The results support Hypothesis 1, that the presence of OPLs' criticism lowers people's policy approval.

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[9] The setting of 10 seconds is arbitrary. We raise the cutting point to 15 seconds and 25 seconds and find similar results. See the OA.

[10] Detailed Bartlett's tests are available in the OA.

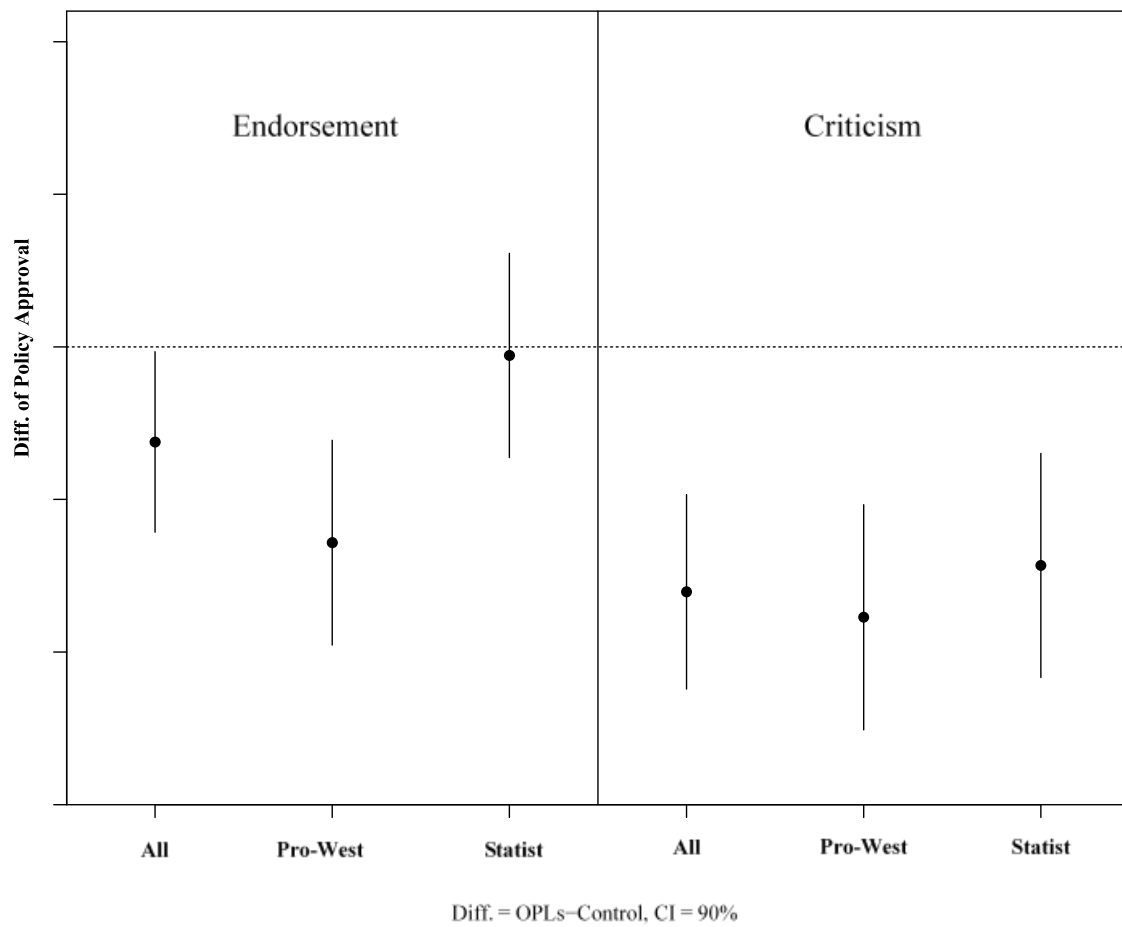[11] Source: https://goo.gl/dkpwQK

Figure 1. Results from t-test on policy approval [1-5].

To test the robustness of our theory, we also conducted a regression analysis. Figure 2 shows the predicted policy approval scores of the three experimental groups, using the OLS estimator when the other variables were held at their means. We controlled for all demographic and ideological variables. The results are robust according to the ordered logit Model with the same specifications.[12]

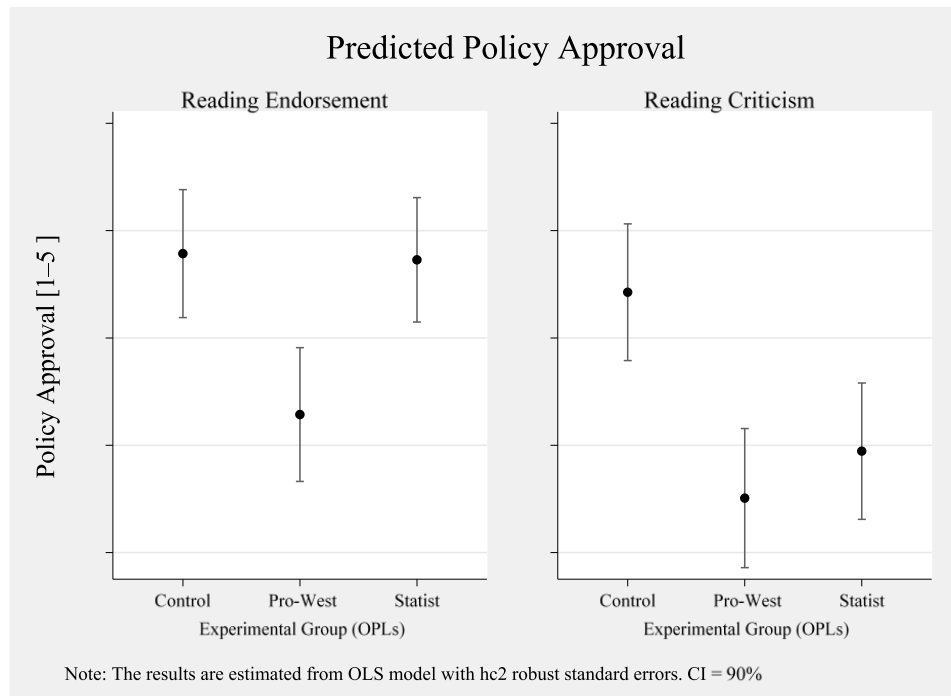---

[12] See the OA for full results.

Figure 2. Predicted policy approval on regression.

On the left panel, the endorsement from the Pro-West OPL reduced respondents' policy approval by 0.3 (7.5% on the 5-point scale). This effect was significant at a 99% confidence level. The endorsement from the Statist OPL reduced policy approval by 0.02 (0.5% in the 5-point scale) and was statistically insignificant.

In the right panel, criticism from the Pro-West OPL reduced respondent policy approval by 0.38 (9.5% on the 5-point scale). Criticism from the Statist OPL reduced policy approval by 0.29 (7.3%). Both results are statistically significant.

Both the t test and regression analysis confirmed Hypothesis 1, that OPLs can guide public opinion when they criticize the government. The results also confirmed Hypothesis 2, which proposed that OPLs' supportive opinions cannot persuade respondents' opinions. However, rather than having no effect, the presence of an OPL generated a negative effect when the OPL showed support for the government's policy. Since we used pro-government commentary to induce a high awareness of propaganda, such results suggest that the presence of OPLs alerts respondents to government manipulation. Once respondents are convinced that an endorsement is another piece of propaganda, their attitudes turn against the policy in defiance of the OPL, whom they believe to be a government mouthpiece.

The awareness of propaganda explains why the Statist OPL did not generate a significant impact on policy approval. To an ordinary reader, the Pro-West OPLs whose opinions endorse the government are rejecting their usual political stance. Thus, the endorsement is probably involuntary.

Therefore, people are more likely to disregard such an endorsement as a form of propaganda imposed by the government and, therefore, grant less approval to the policy. In contrast, when assessing the Statist OPL's positive comments, respondents feel it is natural for him to endorse the government, given his well-known statist stance. Therefore, respondents are less likely to assume it is a propaganda piece, and they were not agitated by the Statist's statements compared with those from the Pro-West OPL.[13]

OPLs on Reposting Willingness

Figure 3 shows the simple *t*-test comparison of the OPLs' effect on reposting willingness. The left panel shows respondents were less willing to repost an OPL's endorsement than an anonymous one. Although the results barely failed the significance test, the negative effects are consistent across the two experimental groups. Similar to the results of policy approval, the Statist OPL's negative effect on reposting willingness was slightly smaller than the Pro-West OPL's.

The right panel shows that respondents were more willing to repost criticism from an OPL than from the anonymous source. The results are consistent across both OPLs, although the Statist OPL's criticism failed to pass the conventional significance test.

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[13] An alternative explanation would argue that people's dislike for the state, rather than their awareness of propaganda, erodes OPLs' credibility. This argument seems plausible because dislike for the state and dislike for state propaganda should be covaried. However, our experiment only compares opinion statements with and without OPLs as the source. The manipulation did not involve government trust. We cannot find a good theoretical reason to argue that being endorsed by an OPL will lower people's trust in the government except for the circumstance our model predicts: Respondents are aware that the OPL is a government agent and thus less trustworthy. In addition, we controlled for the government trust in the regression, while the effects still hold. Finally, dislike for the state cannot explain why the effects are different when Statist and Pro-West OPLs both endorse the policy.
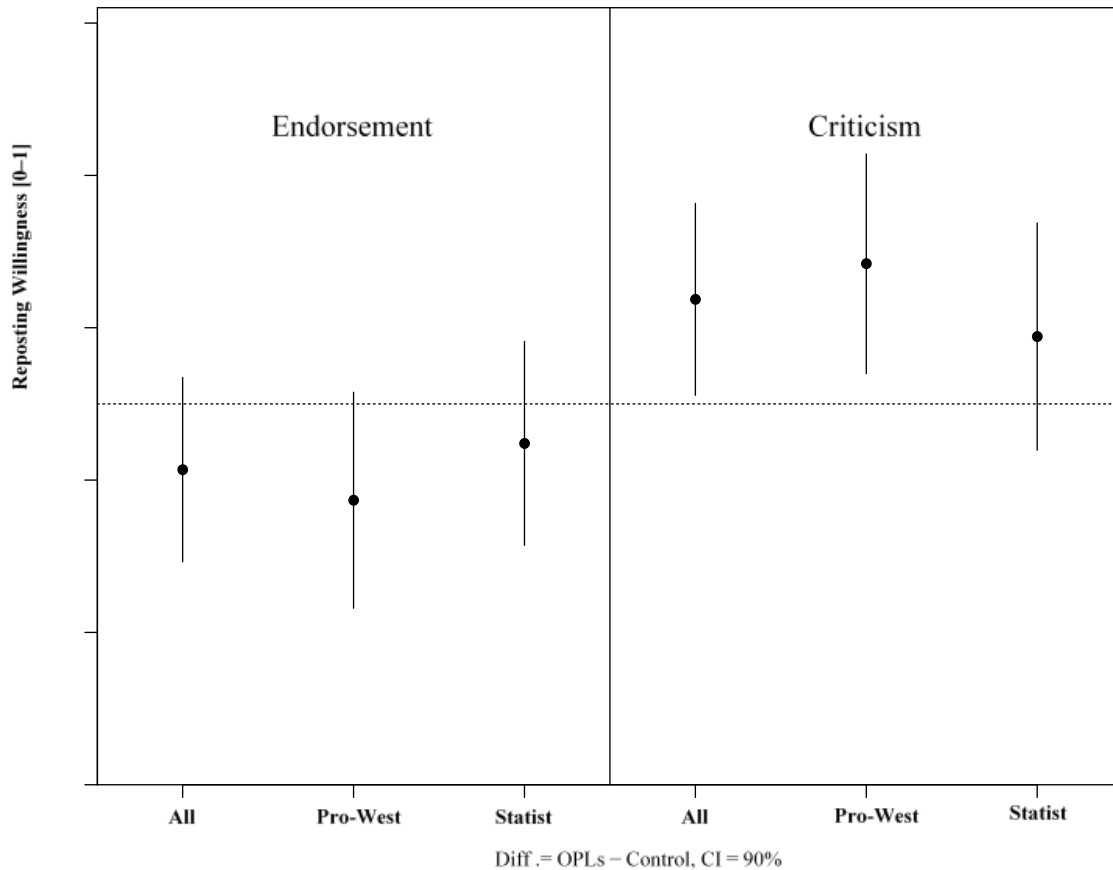
t Test on Reposting Willingness [0−1]

Diff .= OPLs − Control, CI = 90%

Figure 3. Results of t-Test on reposting willingness [0−1].

In the regression analysis, we used the Logit estimator to examine the effects of OPLs.[14] Figure 4 shows the probability of reposting, with other variables held at their means. Respondents who read the endorsing comments from an anonymous source had a 79.3% probability of reposting the comment, while the probability of reposting the Pro-West and Statist OPLs' comments was only 73.9% and 75.9%, respectively. These results are on the edge of passing a conventional significance test. Respondents who had read critical comments from an anonymous source had a 69.5% chance of reposting. But critical comments from the Pro-West OPL had a 77% probability (significant at the 90% confidence level). The Statist's comment had a 72.2% probability of being reposted.

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[14] The results are similar when we use the OLS and Logit linear models; see the OA.
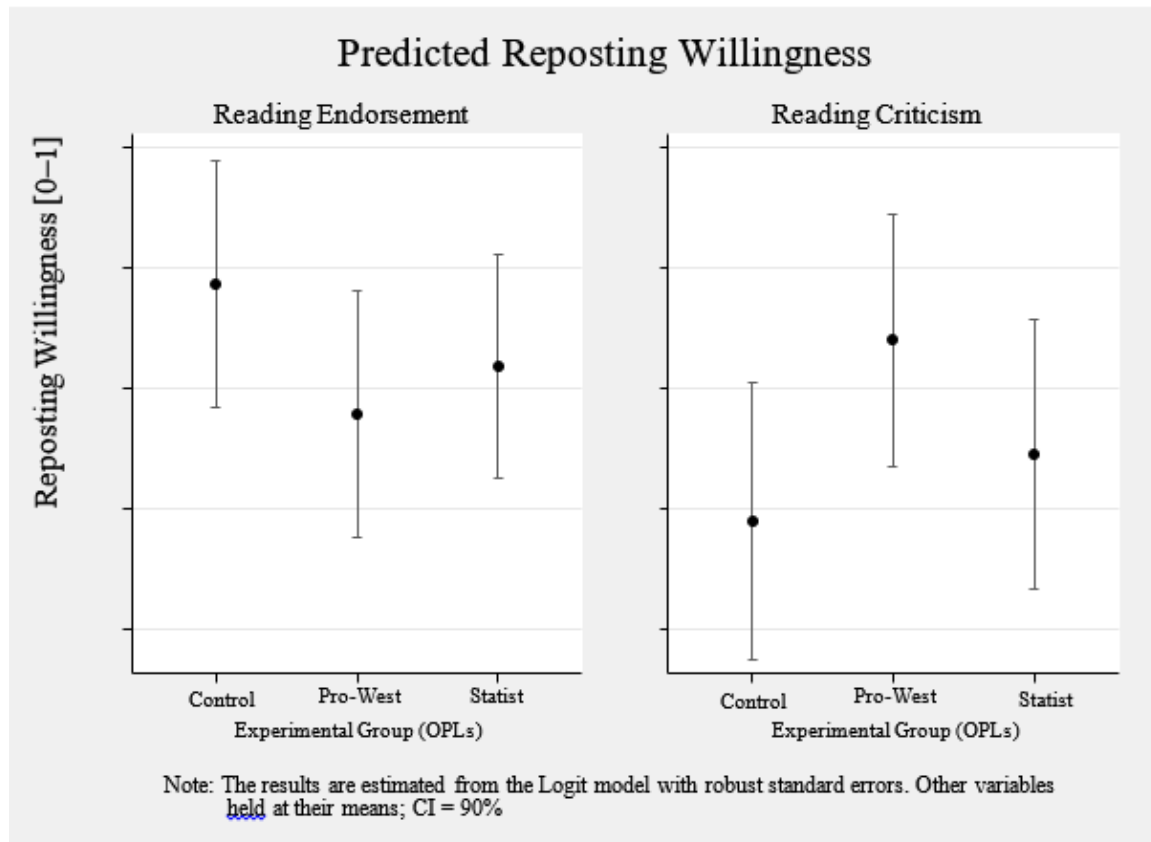
Figure 4. Predicted reposting willingness on regression.

These findings support Hypothesis 3: Attributing a comment to an OPL increased people's willingness to repost critical comments. Why would OPLs boost reposting behavior of negative opinions? It is possible their expertise adds credibility to the opinions. Alternatively, people may feel less anxious when they repost opposing opinions from a traceable celebrity, as they do not have to take personal responsibility for criticizing the government. Either way, OPLs do encourage people to repost critical opinions.

Additionally, this finding is also partially consistent with Hypothesis 4. OPLs do not encourage respondents to repost pro-government opinions. Since government propaganda is pervasive, the OPL's endorsement adds little value. Thus, people are not motivated to repost the already prevalent opinion. However, the evidence suggests OPLs may reduce respondents' willingness to repost. Why does this happen? Since we controlled for policy approval in the analysis, it is not because they do not like the pro-government opinion. And since we also controlled for respondents' ideology, favoring the OPLs' positions should not affect the estimates.

However, as we only used two OPLs, their personalities may affect the results. For example, if respondents do not like one OPL, they may choose not to accept the OPL's ideas regardless of whether or

not they agree. However, if this were true, we would expect one or both OPLs to have a reversing effect on respondents' policy approval and reposting, regardless of the nature of their comments. This is not the case: Respondents actually agree with the OPLs when the comment criticizes the government. The reason seems to be that the OPLs' endorsement elevates readers' propaganda awareness. The more they feel the opinion is propaganda, the less they want to repost it. Nevertheless, future studies may want to test the effects on multiple OPLs to examine the external validity of our findings.

The question, then, is, why do people not like reposting propaganda? One answer is that propaganda from OPLs is "useless," since the opinion is already prevalent on the government's other media channels. Another viable answer could relate to social pressure, as people may feel reposting propaganda will damage relationships within their social media circle. For a recent illustration, a leaked conversation between some managers of university WeChat accounts revealed that the accounts kept losing followers when the propaganda machine told them to continually post articles praising President Xi Jinping for a whole week.[15] This anecdote shows social media users do not like propaganda invading their social media, even though there is no evidence that the readers do not support President Xi. Respondents probably hesitate to repost pro-government opinions because they have the same concerns as the WeChat account managers. Nevertheless, our experiment does not provide sufficient evidence to prove the effects of social pressure on reposting propaganda. We expect future studies can test this explanation.

Conclusion

This article proposed the OPL-Propaganda Model to explain how, in authoritarian regimes, independent OPLs have a limited effect on public opinion, conditioned by the presence of propaganda. The model argues that OPLs may affect public opinion in two ways: first, by guiding people's policy preferences directly, and second, by providing a credible source and a low-risk form of public dissension, thereby stimulating people's willingness to repost and spread opinions. However, when people perceive that the opinion is likely a piece of propaganda, the OPL's influence disappears. This theory argues that propaganda awareness is mainly determined by whether the OPL's opinion endorses or criticizes the government. An OPL's influence is only effective in guiding opinions and encouraging reposts when the OPL's opinion opposes the government.

We used an online survey experiment to test the model and found that it correctly predicts that OPLs guide people's policy preference and encourage reposting when the OPLs criticize the government. However, when OPLs endorse government policy, their presence generates the reverse effects rather than no effect. This finding confirms that the awareness of propaganda does moderate OPLs' influence but even beyond what we expected. The reason, we suspect, is that people have no trust in propaganda. Not only do they refuse to accept the opinions proposed by propaganda but they will take the opposite position. In addition, users may not want to repost propaganda due to social pressure. However, our experiment does not provide evidence to confirm this speculation. We expect further studies to answer why such effects exist.

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[15] Source: https://goo.gl/75y1JN

This study also has several limitations. First, although our results on policy approval are significant in scale and consistent across different models, some regression results on reposting willingness did not pass the statistical significance test. Thus, our results on reposting behavior should be considered indicative rather than decisive. We need further studies to test how OPLs change people's online behaviors. Second, our model does not include the effects of censorship, although it does imply that the concern of repression may make people less likely to repost an anonymous critical opinion (reposting willingness dropped 9.8%, according to Figure 4).

Third, our sample is skewed to an educated population, which may generate possible selection bias in which the OPLs' effect only works in educated citizens. Previous research shows that low-educated populations have more trust in the Chinese government (Wang, 2005) and therefore are likely to have less awareness of and higher acceptance of propaganda. We tried to reweigh the regression according to Beijing's education demographics from official statistics, which caused the Pro-West OPL's effect on policy approval to disappear.[16] However, given that only 18 respondents were from the junior high or lower education group, we cannot make any reliable arguments with such results. Therefore, one should be cautious about applying our findings to China's general Internet population. However, we believe our results can be applied to social media users with a similar educational background.

Finally, our model simplifies reality and treats OPLs purely as opinion producers. Such a setting is helpful to parsimoniously describe OPLs' potential capability to spread distinct opinions independent from the propaganda outlets, but it ignores the fact that OPLs may get ideas from others rather than solely providing original thoughts. We expect further studies to address such complexity.

The OPL-Propaganda Model contributes to communication studies by explaining how institutional contexts shape OPLs' effect on public opinion. In authoritarian regimes, where free speech is constrained and the regime has massive propaganda outlets, social media provide an uncommon opportunity for OPLs to broadcast their own opinions. However, because of the moderating effect of propaganda awareness, OPLs' credibility will either be questioned for their support of the regime or blindly accepted for their opposition. The finding also echoes the study of denigration of public intellectuals (Han, 2018). OPLs will lose their credibility if they stop being independent and critical. However, as Han's study suggests, although propaganda is the most prevalent and salient form of opinion manipulation in China, people's suspicions are not merely directed at the government. Public opinions against the government can be interpreted as manipulation by "hostile foreign forces." The pro-West intellectuals can be the agents of the Western government (e.g., Wong, 2014). We expect future studies could explore similar effects of pro-Western contents.

Our findings also speak to the literature on citizens' resistance to propaganda. For example, Geddes and Zaller (1989) found that high political awareness helps citizens resist the regime's persuasive influence. We found another element of resistance: individual OPLs, who are the products of Internet technology and social media. OPLs tend to dissuade audiences when they criticize the government. However, they are ineffectual when they try to persuade audiences to support the government. Such results are robust even

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[16] See the OA for full results.

after we controlled for respondents' political awareness in the regression. This finding also confirmed the effects of OPLs of previous studies (Lei, 2011).

Our findings also echo Kuran's (1991) idea of preference falsification. In this study, we demonstrate that awareness of propaganda heightens detection of preference falsification regardless of the accuracy of such detection. When the Pro-West OPL endorsed a policy against his usual political position, respondents were suspicious of the OPL's alleged change of opinion and became unconvinced. When the Statist OPL endorsed it, on the other hand, respondents were more convinced that the Statist was expressing his genuine beliefs. This process reveals that when the regime successfully forces its citizens to falsify their opinions, it cannot prevent the deterioration of trust.

OPLs' effects on policy approval and willingness to repost have further implications. First, with regard to policy approval, the massive propaganda machine creates a Tacitus Trap, in which citizens believe that all pro-government opinions are attempts to manipulate citizens. Even if OPLs express their genuine, independent support of the government, their opinions will still be discredited. This finding echoes previous studies on the government's ineffective use of the fifty-cent army to guide public opinion (Han, 2015b). However, blindly rejecting pro-government opinions is not the equivalent of being a better "critical citizen" (Lei, 2011). Without careful examination, citizens may also reject beneficial public policies. This finding is also analogical to public opinion formation in democracies, where polarizing party politics encourage people to trust partisan views with less substantive evidence (Druckman et al., 2013). We provide further evidence demonstrating that an individual's prior preference for an information source can discount the actual value of the information. Nevertheless, it does not mean propaganda is futile. Propaganda can be used not as a form of persuasion but as a method of intimidation (Huang, 2015). On the other hand, when citizens are not aware they are being manipulated by government propaganda, they are likely to accept the opinions. Therefore, if the government used more delicate methods to disguise its intention, it could win public support (Stockmann & Gallagher, 2011).

Finally, when audiences repost opinions that are against the propaganda, the propaganda's influence is counterbalanced. Although the propaganda is still prevalent in public discussion, more diverse opinions are disseminated by enthusiastic social media users who oppose the propaganda's agenda, which contributes to a diversified public discussion and debate culture (A. X. Wu, 2012). This process exposes audiences to different opinions and helps them think independently. In this sense, independent OPLs can facilitate more critical citizens.

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