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Does Authoritarian Public Diplomacy Work?

A dissertation submitted in partial satisfaction of the requirements for the degree
Doctor of Philosophy

in

Political Science

by

Chaohong Pan

Committee in Charge:

Professor Haifeng Huang, Chair
Professor Elaine K. Denny
Professor Matthew Hibbing

2023

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University of California, Merced
2023

Dedication

To Junhong Xu, thanks for always being there for me.

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· How Non-Governmental Diplomacy Affects International Public Opinion: Evidence from a Cultural Social Media Influencer
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Does Authoritarian Public Diplomacy Work?
Chaohong Pan
Doctor of Philosophy in Political Science
University of California, Merced
Abstract

Having power is having the ability to control others and influence their actions. A nation with soft power has the ability to be appealing to distant audiences, promote its values, and finally influence foreign audiences by placing its influence (Nye, 2004, 2008; Tuch, 1990). In order to enhance and implement soft power, governments have made efforts to influence international public opinion through public diplomacy (Gilboa, 2008), an instrument employed by both governmental and non-governmental roles to communicate with foreign citizens by mobilizing any available resources in order to influence overseas citizens' long-term attitudes and preferences (Nye, 1990, 2004, 2008).

There have been significant efforts made to understand how public diplomacy is conducted, especially on social media platforms such as on Facebook and Twitter (Kampf et al., 2015). Those works usually focus on Russia and the US, the two countries with significant experience in influencing overseas public opinion (Fisher, 2020). Particularly, the US, the democratic country that has engaged in public diplomacy the most successfully, has promoted its political culture throughout the world. How about the public diplomacy practiced by authoritarian nations? China, the world's largest authoritarian nation, has received less attention as a new player in public diplomacy. Recently, China's international favorability has reached a historically low level. The Pew Research Center reported that China's unfavorability in the US increased from 42%[1] to 76%[2]. Does this mean that the public diplomacy conducted by the authoritarian country failed?

Furthermore, previous studies on public diplomacy are comprised largely of descriptive studies examining the originators and content of public diplomacy messages with only scant attention paid to the recipients and the actual effects of those messages. Moreover, existing research tends to focus on government-sponsored media networks and educational programs, such as the Confucius Institute (Hartig, 2012) and English-language graduate programs (Metzgar, 2016), whereas the effects of nongovernmental roles have been underexplored.

I intend to fill the gaps in the field of research with my dissertation composing of three separate studies that center around a research question: Does authoritarian public diplomacy work? Under the current context of China's aggressive "wolf warrior" diplomacy, my first chapter, *Chinese "Wolf Warrior" Diplomacy and Foreign Public*

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[1] "Chapter 3. Views of China." Pew Research Center, Washington, D.C. (June 12, 2008) https://www.pewresearch.org/global/2008/06/12/chapter-3-views-of-china/

[2] "Large Majorities Say China Does Not Respect the Personal Freedoms of Its People." Pew Research Center, Washington, D.C. (June 30, 2021) https://www.pewresearch.org/global/2021/06/30/largemajorities-say-chinadoes-not-respect-the-personal-freedoms-of-its-people/

Opinion, investigates the effects of tweets of Chinese diplomats and Chinese state-controlled media by using 2 × 2 online survey experiments. I found that the Chinese diplomats' tweets can positively influence Americans' attitudes toward China, but the Chinese media's tweets do not. Among the Chinese diplomats' tweets, positive tweets about China can influence Americans' attitudes toward China in a positive way, whereas negative tweets about the US have litter effects on their opinion. Furthermore, positive-China tweets may be effective only on China-related issues, which indicates that public diplomacy messages have limited effects on shaping a foreign audience's attitudes toward their own country. Lastly, I find that labels largely have no impact on a diplomatic tweet's effect.

The second chapter, *Do Authoritarian Mega-events Affect International Public Opinion? Evidence from the 2022 Beijing Winter Olympics*, explores the potential of the 2022 Beijing Winter Olympics to reshape China's international image through public diplomacy efforts. Mega-events like the Olympics offer opportunities for nations to improve their favorability and boost product sales. The paper aims to understand the effects of the Olympics and the underlying mechanism of how newly gained knowledge about China affects foreign public opinion. Specifically, using a two-round panel survey, the paper investigates the effects of the Olympics on foreign perceptions of China and which types of knowledge have the most significant impact on public opinion. Results indicate that the Olympics have limited ability to change public views of China, and in some cases, may have a backfired effect. In other hand, people gained significantly more positive knowledge about China after the Olympics, which positively correlated with increased curiosity about Chinese culture and a stronger desire to foster peaceful relations with China. Overall, the paper provides insights into the actual impact of public diplomacy strategies in the context of mega-events like the Olympics.

This first two chapters discusses the effects of public diplomacy efforts made by the government. In contrast to traditional diplomacy, both governmental and nongovernmental actors can take part in public diplomacy. The third chapter, *How Non-Governmental Diplomacy Affects International Public Opinion: Evidence from a Cultural Social Media Influencer*, looking at the effects of nongovernmental actors. In China, considerable resources have been allocated to government-driven public diplomacy initiatives, such as Confucius Institutes and internationalizing state-controlled news channels. However, these efforts have demonstrated limited success. In contrast, the global popularity of Chinese content creators such as Li Ziqi highlights the potential effectiveness of nongovernmental public diplomacy focusing on Chinese culture. Existing research largely focuses on government-led digital public diplomacy, neglecting the role of nongovernmental actors. This paper fills this gap by employing a survey experiment to examine the impact of Li Ziqi's Twitter content on American participants and whether official endorsement from the Chinese local government influences their perceptions. The study reveals that Li Ziqi's content positively influenced participants' general view of China and their feelings towards Chinese people, but not in specific issue topics such as China's international roles. Second, official endorsement from Sichuan government did not significantly affect the persuasiveness of her content. Furthermore, the study finds that international orientation (hawkish vs. dovish) is not a crucial factor in determining the

effects of public diplomacy messages. This research offers valuable insights into the effectiveness of diverse public diplomacy strategies in shaping foreign perceptions.

Part I

Chinese "Wolf Warrior" Diplomacy and Foreign Public Opinion

Abstract

Through public diplomacy on social media, governments have attempted to influence foreign public opinion. What is the impact of digital public diplomacy? Public diplomacy research often study the strategies employed by communicators, but has rarely examined its actual impact on the audience. In addition, we do not know if giving a communicator an explicit label, as Twitter does with “government account", would change the effects of the messages. Using two 2×2 survey experiments, the present paper contributes to the study of public diplomacy by randomly exposing American participants to four types of tweets from Chinese diplomats and Chinese state media. The stimulus materials vary in terms of the tweets’ content (“positive-China" vs. “negative-US) and Twitter government labels (with vs. without the labels). I found that the Chinese diplomats’ tweets can positively influence Americans’ attitudes toward China, but the Chinese media’s tweets do not. Among the Chinese diplomats’ tweets, positive tweets about China can influence Americans’ attitudes toward China in a positive way, whereas negative tweets about the US have litter effects on their opinion. Furthermore, positive-China tweets may be effective only on China-related issues, which indicates that public diplomacy messages have limited effects on shaping a foreign audience’s attitudes toward their own country. Lastly, I find that labels largely have no impact on a diplomatic tweet’s effect. These results contribute to our understanding of the effects of public diplomacy in the digital age.

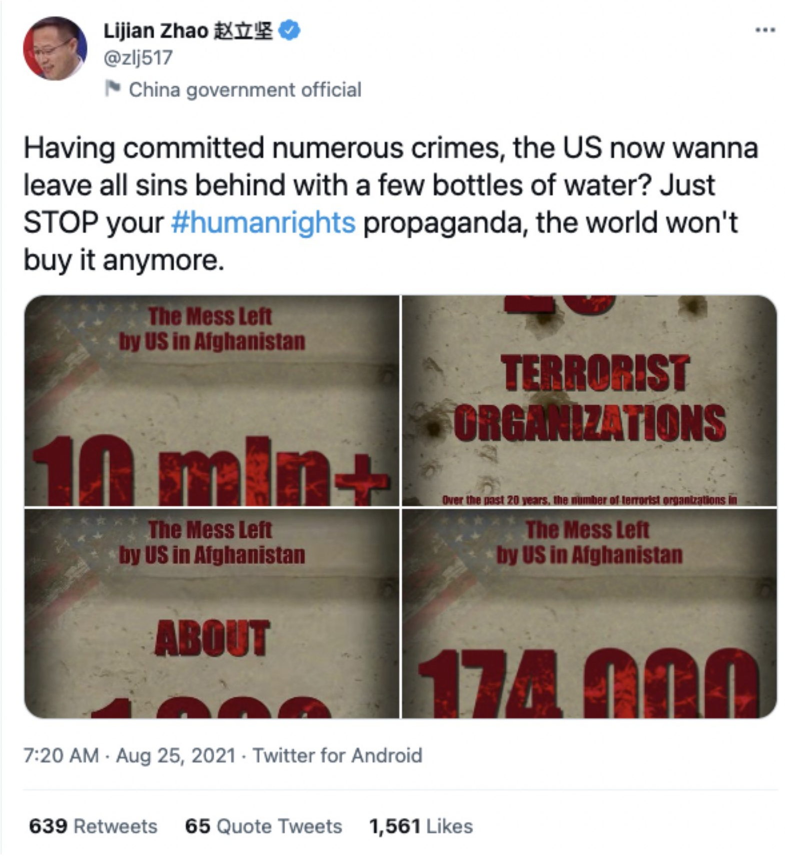
1.1 Introduction

Having power is having the ability to control others and influence their actions. A nation with soft power has the ability to be appealing to distant audiences, promote its values, and finally influence foreign audiences by placing its influence (Nye 2004, 2008, Tuch 1990). In order to enhance and implement soft power, governments have made efforts to influence international public opinion through public diplomacy (Gilboa 2008), an instrument employed by governments to communicate with foreign citizens by mobilizing any available resources in order to influence foreign citizens' long-term attitudes and preferences (Nye 1990, 2004, 2008).

The study of public diplomacy and its effects has received considerable attention in recent years. Some public diplomacy practices, such as international aid (Blair, Marty and Roessler 2021, Goldsmith, Horiuchi and Wood 2014, Eichenauer, Fuchs and Brückner 2021), high-level visits (Goldsmith, Horiuchi and Matush 2021), and mega-events (Gries, Crowson and Sandel 2010), have demonstrated the ability to shape national images. However, many governments have devoted to practice digital diplomacy, which is an Internet-based public diplomacy activity (Mazumdar 2021). Research on the effects of digital public diplomacy is scarce, especially when it comes to China, the new actor on the stage of public diplomacy.

China's diplomats have been active on Twitter over the past years, which has been used as a platform for practicing “wolf warrior" diplomacy. The term comes from a 2014 Chinese action film *Wolf Warrior 2*, featuring a patriotic plot and praise for China's national power. As of 2017, China's diplomatic style has been referred to as “wolf warrior diplomacy". China has adopted a more aggressive diplomatic style in contrast to its earlier low-profile approach. One of Chinese Foreign Ministry spokespersons, Zhao Lijian, has gained prominence on Twitter due to his combative criticism of western nations, particularly the US. Figure 1.1 illustrates his aggressive communication style.

Figure 1.1: An example of Zhao Lijian’s tweets



Lijian Zhao 赵立坚
@zlj517
China government official

Having committed numerous crimes, the US now wanna leave all sins behind with a few bottles of water? Just STOP your #humanrights propaganda, the world won't buy it anymore.

The Mess Left by US in Afghanistan
10 mln+
TERRORIST ORGANIZATIONS
Over the past 20 years, the number of terrorist organizations in
The Mess Left by US in Afghanistan
ABOUT
The Mess Left by US in Afghanistan
174 000

7:20 AM · Aug 25, 2021 · Twitter for Android

639 Retweets 65 Quote Tweets 1,561 Likes

Despite not being diplomatic, the tweet is an example public diplomacy. In this tweet, Zhao Lijian attempts to project a negative image of the US to international audiences. One might be curious about the audiences targeted by Chinese diplomats’ tweets. However, they never specified their target audiences. Technically, foreign Twitter users should be targeted since Twitter is not available in China. Due to the intense US-China relationship in recent years as well as the rise of “wolf warrior" diplomacy as the response to the US’s criticism of China (Shumba 2021), audiences from the US should be the primary focus. A natural question is how such combative messaging would affect foreign public opinion? More generally, can public diplomacy on social media be effective? Existing research focuses on the originators of public diplomacy messages, as well as the messages themselves (Lichtenstein and Koerth 2020, Zannettou et al. 2019, Yepsen 2012, Zhong and Lu 2013). However, to determine the effectiveness of public diplomacy, we should concentrate on the audience of the messages.The primary focus of this article is on the reactions of American audiences to public diplomacy messages from Chinese diplomats.

A secondary research question is whether Twitter’s labels on government accounts have an effect on persuasion. Twitter has labeled all government accounts and state-affiliated media as “government accounts" and “state-affiliated media" since August 2020, as Zhao Lijian’s Twitter account in Figure 1.1 illustrates. Government labels on

Twitter may convey warning messages to users and make them suspicious of the information due to reduced credibility, as do warning messages about fake news (Koch, Frischlich and Lermer 2021). Therefore, government labels may have a significant effect on people's cognitive processing of messages on Twitter and other social media. A similar policy has been adopted by YouTube for state-sponsored media accounts. But so far we do not know whether such labeling affects messaging.

To investigate the questions above, I conducted two 2 × 2 survey experiments using Twitter messages, which randomly assigned American participants to four treatment groups and one control group. Treatment materials varied in terms of the content of the tweets ("positive-China" and "negative-US" tweets) and government labels (with and without the government labels). The two experiments complements each other in terms of the content of public diplomacy messages, as the first experiment focuses on the tweets of Chinese diplomats, while the second experiment focuses on the tweets from Chinese state-controlled media. The results are mixed. In Experiment 1, positive public diplomacy messages are found to be beneficial for national image of the sending country, while the effect is insignificant in Experiment 2. However, both experiments illustrate that negative messages criticizing the rival country may not have much impact on how audiences in the rival country perceive their own country. Moreover, critical and aggressive messages do not backfire and persuade audiences away from the sending country.

Specifically, the findings indicate that the Chinese diplomats' tweets can positively influence Americans' attitudes toward China, but the Chinese media's tweets do not. Among the Chinese diplomats' tweets, "positive-China" tweets are significant in positively influencing American audiences' attitudes toward China on measures such as favorability, perception of China's handling of Covid-19, etc, but not in the US-related attitudes. On the contrary, "negative-US" tweets from Chinese diplomats and Chinese state media do not have significant effects on the attitude of Americans toward either country, even when accompanied by government labels. Furthermore, in general, neither of the messages have little impact on the perception of the US among American audiences. It is likely that views toward their own country are more fixed than attitudes toward foreign countries, so they cannot be influenced by messages from another country. Last but not least, Twitter's government labels are too unnoticeable for most participants, which may explain their limited effectiveness.

In addition, the subgroup analysis based on partisanship indicates that Democrats have a more positive opinion of China than their Republican counterparts. This result supports a popular assertion on how Americans view China: Party affiliation plays a significant role in predicting attitudes toward China (Gries and Crowson 2010, Gries, Cai and Crowson 2010, Aldrich, Lu and Kang 2015). Although Democrats and Republicans have different perceptions of China, partisanship in general does not influence how they process the public diplomacy messages from Chinese diplomats. Democrats do not trust either the "negative-US" or "positive-China" messages more as a result of their partisanship, and vice versa.

Despite receiving considerable attention in recent years, the actual effects of digital diplomacy have rarely been studied. As far as I am aware, the present paper is the first one to investigate experimentally the effects of tweets from Chinese diplomats and Chinese state media on American public opinion, especially on Americans' attitudes toward China and the US. The paper may open up a new avenue of public diplomacy research.

1.2 Effects of Public Diplomacy in Social Media

Public diplomacy has received significant research attention in order to understand its effects. As an example, international aid may help promote a positive national image (Blair, Marty and Roessler 2021, Goldsmith, Horiuchi and Wood 2014, Eichenauer, Fuchs and Brückner 2021). High-level visits (Goldsmith, Horiuchi and Matush 2021) and mega-events such as Olympics (Gries, Crowson and Sandel 2010), may also influence foreign perceptions, regardless of whether that impact is positive or negative. In spite of the numerous interesting studies, this area of public diplomacy is still in its infancy. In particular, the work focused on digital public diplomacy is comprised largely of descriptive studies examining the originators and content of public diplomacy messages with only scant attention paid to the recipients of those messages.

Digital public diplomacy is an Internet-based public diplomacy approach, through which international actors communicate with foreign publics in order to influence their stances in the desired direction (Mazumdar 2021, Pelling 2015). The importance of social media platforms has been recognized by many countries. Russian Today (RT) tries to frame news stories on YouTube in a way that promotes the interests of the Russian government (Crilley, Gillespie and Willis 2020). A number of US embassy accounts are active on Twitter, Facebook, and Weibo to promote US foreign policy and political values (Collins, DeWitt and LeFebvre 2019, Yepsen 2012, Zhong and Lu 2013).

Public diplomacy on social media could be considered an information dissemination process (Hartig 2019): A country communicates any kind of information or message with the target audiences. To understand public diplomacy, most of the research has focused on the messages from the sending countries, rather than their actual effects. For example, they rely upon content analysis to collect and analyze the text or video messages posted by state-backed originators, describing the prioritized topics, narratives used, social networks employed by those originators (Lichtenstein and Koerth 2020, Metzgar 2012, Zannettou et al. 2019, Yepsen 2012, Zhong and Lu 2013). To my knowledge, the work of Fisher (2020) is the first experimental attempt to investigate the effects of online public diplomacy messages. By exposing participants to a critique of the Ukrainian government on RT, he discovered that their attitudes shifted toward Russia and they lowered their evaluations of Ukraine.

When it comes to China, the literature on the impact of Chinese public diplomacy on public opinion is even smaller. Several studies have examined the content of messages posted by Chinese diplomats on Twitter, revealing the hashtags that are commonly used and their social networking with foreign media (Huang and Arifon 2018, Huang and Wang 2019). Several scholars have studied forms of online public diplomacy. The Chinese government, for example, mobilized panda imagery on Twitter to promote the Chinese national brand (Harris 2013, Huang and Wang 2019*a*). Also, simplified Chinese text images served a special role targeting overseas Chinese (Wang et al. 2020). Recent research examined how foreign-language news outlets from different countries, including China, have chosen to emphasize different aspects when reporting on Covid-19-related issues (Rebello, Kirwan and Greenway 2020). Some studies investigated the audiences' side, analyzing their comments on the messages using discourse analysis (Chatterje-Doody and Crilley 2019, Crilley and Chatterje-Doody 2020). However, very few empirical studies have evaluated how the targeted audiences reacted to those public diplomacy messages.

As far as I am aware, Mattingly and Sundquist (2021) is the only other study looking at how foreign audiences perceived the public diplomacy messages from China on a social media platform. They found that friendly messages from Chinese officials highlighting China's aid to India cause Indian audiences to lean toward China, whereas messages attacking the US do not affect their perception of the US. Nevertheless, will the effects be the same for audiences living in the rival country that has been smeared? Chinese diplomacy has always placed a significant focus on US-China relations, and China has mobilized many resources, such as the Confucius Institute (Green-Riley 2020), to influence the public opinion of Americans. Specifically, how would Americans perceive the public diplomacy messages emanating from China, in particular messages that are directed at their own country? Second, can other positive public diplomacy messages be used to improve the national image of the sending country, in addition to national aid?

In this article, I classify China's public diplomacy tweets into two categories: “Positive-China" tweets and “negative-US" tweets, building on the work on Mattingly and Sundquist (2021). “Positive-China" tweets emphasize the positive features of China's development, such as raising the life expectancy and providing vaccines to countries in need. By sending “negative-US" messages, Chinese diplomats attack the domestic social problems in the US, including racial discrimination and police brutality. The impact of public diplomacy messages is indeterminate based on existing research. Public diplomacy can be an influential instrument in influencing public opinion in the desired direction of the sending country, it also has the potential to yield counterproductive outcomes.

Previous studies have demonstrated that individuals who receive positive information about a country are more likely to form a favorable opinion of it (Fisher 2020). Furthermore, Mattingly and Sundquist (2021) suggests that Chinese diplomats' tweets regarding China's international aid and friendships can increase China's appeal among foreigners. However, Nye (2008) has cautioned against the practice of “preaching at foreigners" as an ineffective way to influence them. Additionally, public diplomacy messages that “extol the virtues of government policies that are seen by others as arrogant" can be viewed as propaganda Nye (2008). Therefore, it is hypothesized that exposure to “positive-China" messages may or may not result in a positive view of China.

The impact of “negative-US" messages is also equivocal. If individuals accept the message's content, their perception of the US is likely to be negatively affected. However, such messages could also result in a sense of patriotism, which might cause irritation. In other words, “negative-US" messages could have a backfire effect. Empirical evidence from Fahmy, Wanta and Nisbet (2012) suggests that US-funded media outlets in the Arab world are perceived as having low credibility. Therefore, it is hypothesized that “negative-US" messages may or may not have negative effects on American attitudes toward the US. Additionally, such messages may also have negative effects on participants' attitudes toward China due to triggered patriotism.

Furthermore, information processing is a cognitive process that requires attention, which is a limited resource (Lang 2000). To reduce cognitive labor, individuals rely on heuristics to make decisions (Lupia 1994), and labels on social media can fulfill the same function. Adding a warning label about fake news may have people lose trust in the post content (Clayton et al. 2020, Koch, Frischlich and Lermer 2021). Government labels on Twitter, such as “government account" and “state-affiliated media", can be regarded as warning labels that might reduce the credibility of the message. Because all Chinese diplomats' Twitter accounts have government labels, public diplomacy messages may be less persuasive. The article's secondary focus is on the influence of government labels on public diplomacy's effects.

Therefore, the hypotheses are as follows.

Hypothesis 1A: *“Positive-China" messages have positive effects on American attitudes toward China.*

Hypothesis 1B: *“Positive-China" messages have negative effects on American attitudes toward China.*

Hypothesis 2A: *“Negative-US" messages have positive effects on American attitudes toward the US.*

Hypothesis 2B: *“Negative-US" messages have negative effects on American attitudes toward the US.*

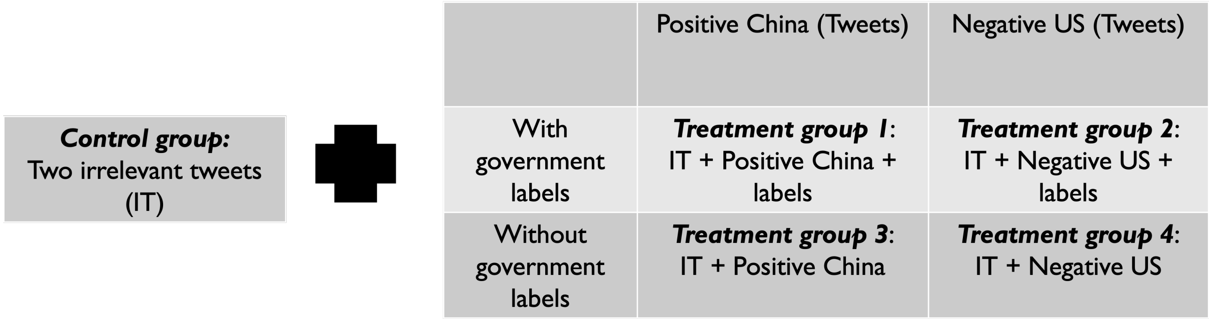
Hypothesis 2C: *“Negative-US" messages have negative effects on American attitudes toward China.*

Hypothesis 3: *Government labels on Twitter make either of the two groups of the messages less trustworthy.*

1.3 Experiment 1: Chinese diplomats' tweets

1.3.1 Research Design

Figure 1.2: Experimental Design



Control group:
Two irrelevant tweets (IT)

	Positive China (Tweets)	Negative US (Tweets)
With government labels	***Treatment group 1***: IT + Positive China + labels	***Treatment group 2***: IT + Negative US + labels
Without government labels	***Treatment group 3***: IT + Positive China	***Treatment group 4***: IT + Negative US

In July 2021, I conducted a survey experiment in the US using *Cloud Research* to examine the effects of two Chinese diplomats' tweets on the opinions of US audiences concerning China, the US, and democratic institutions. The 2 × 2 survey experiment proceeded as follows. Before completing the experiment, participants were first asked a battery of pre-treatment questions about demographics, ideology, and partisanship. Participants were randomly assigned into five groups: four treatment groups, which read three tweets from two Chinese diplomats (Zhao Lijian and Hua Chunying) and two placebo tweets, and a control group, which read only the placebo tweets.

The treatment tweets vary in terms of their content and labels. The tweets are divided into two categories: “positive-China" and “negative-US". The three “positive-China" tweets emphasize the safety and convenience of living in China (Tweet 1), the fact that China provides Covid-19 vaccine to a number of countries (Tweet 2), and the fact that the Chinese life expectancy has increased from 1949 to 2019 (Tweet 3). The three “negative-US" tweets criticize the racial discrimination in the US by referring to Tulsa Race Massacre (Tweet 1), military conflicts around the world waged by the U.S. (Tweet 2), and mass shooting issues (Tweet 3). In each of the groups, Tweet 1 and Tweet 3 come from Hua Chunying, Tweet 2 comes from Zhao Lijian. The two placebo tweets are politically neutral. One is a motto about light traveling, and the other one features the photography of leaves after a rain. Using neutral tweets as placebos ensured that they would not elicit emotional reactions that might affect the interpretation of tweets used in the treatment groups. The tweets used in the experiment, including the placebo tweets, are all public.

Afterward, all subjects were asked a series of questions about their perspectives on China and the US. Five-point Likert scale, seven-point Likert scale, and binary option were used in post-treatment questions. Four of the seven questions on China asked about the general view of China, perceived effect of China's economic expansion, perceived China threat, evaluation of China's handling of Covid-19, willingness to visit

China in the future. Six questions on the US capture the respondents' perspectives of their own country and political institution. Three questions respectively ask the political trust on the federal government and US's handling of Covid 19, and the subjects' preference between democracy and authoritarianism. The rest of the three questions ask the evaluation of current government system's capacity to solve problems over the long run, support of the current government system, and if they think current government system is better than other political systems. The three questions were aggregated into a variables to measure the support of current US's political system in the following analysis.

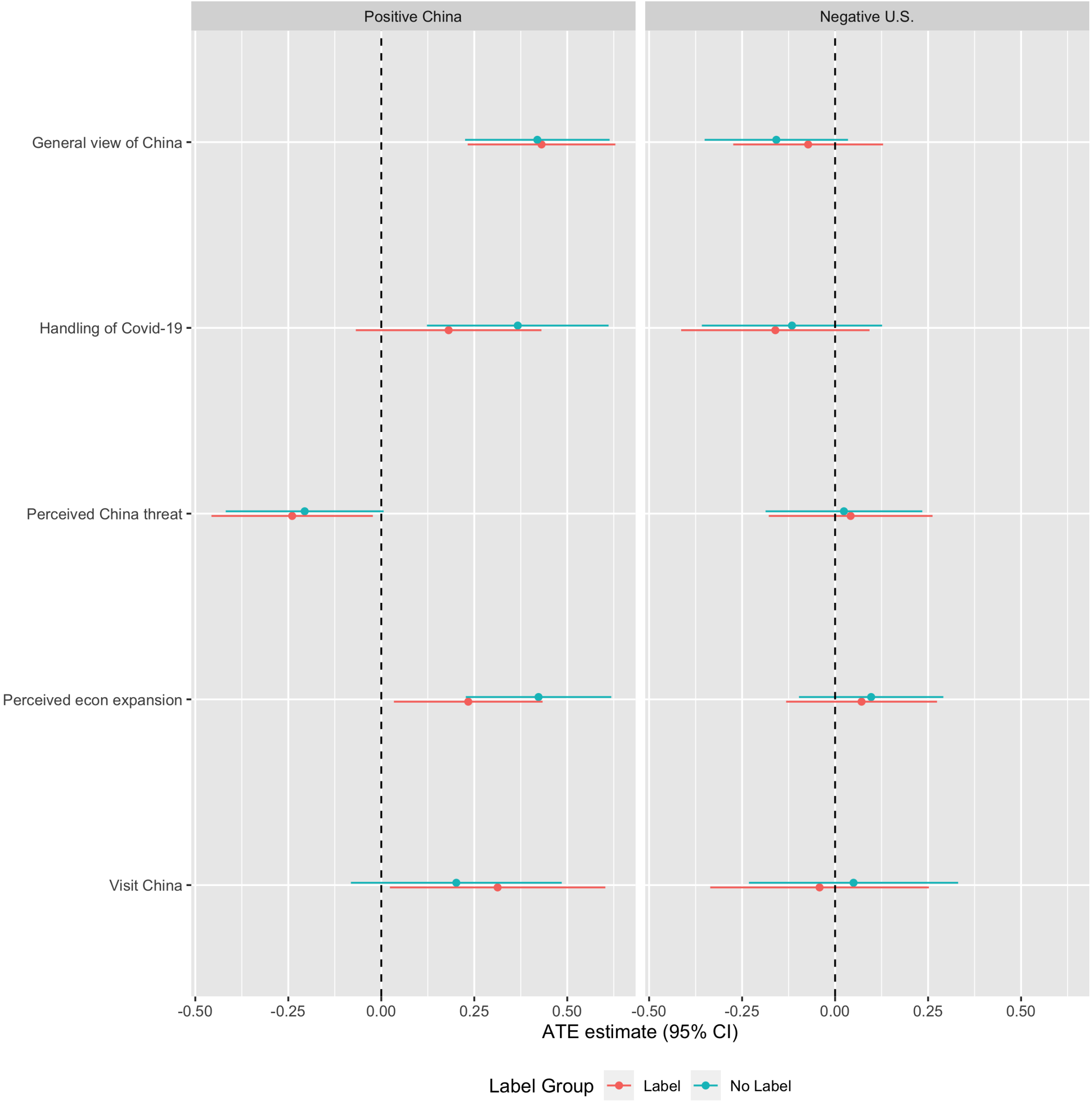
The article examines Twitter diplomacy, so internet users are the natural population of interest. In the pre-treatment questions, I embedded an attention check question for quality control (Berinsky, Margolis and Sances 2014) and screened out those who did not answer the question correctly. For the experiment to be as realistic as possible, participants should be able to skip the tweets, therefore there was no timer on the tweets. There was a video attached to Tweet 1 in each group of "positive-China" and "negative-US". Similarly, participants may choose to watch or skip the videos.

Respondents in the survey experiment were recruited through *Cloud Research*. *Cloud Research* shares the participant pool with *MTurk* with stricter standards to prevent imposters. The participants were directed to a Qualtrics-based survey website to take the survey experiment anonymously. A total of 995 participants completed the survey and passed the attention test. Participants were randomly assigned to the control group and treatment groups. Table 4 in the Appendix shows that the five groups are balanced demographically.

1.3.2 Analysis and Results

How Does Twitter Diplomacy Affect Americans' Views on China?

Figure 1.3: Effects of negative-US messages and positive-CH messages (China questions)



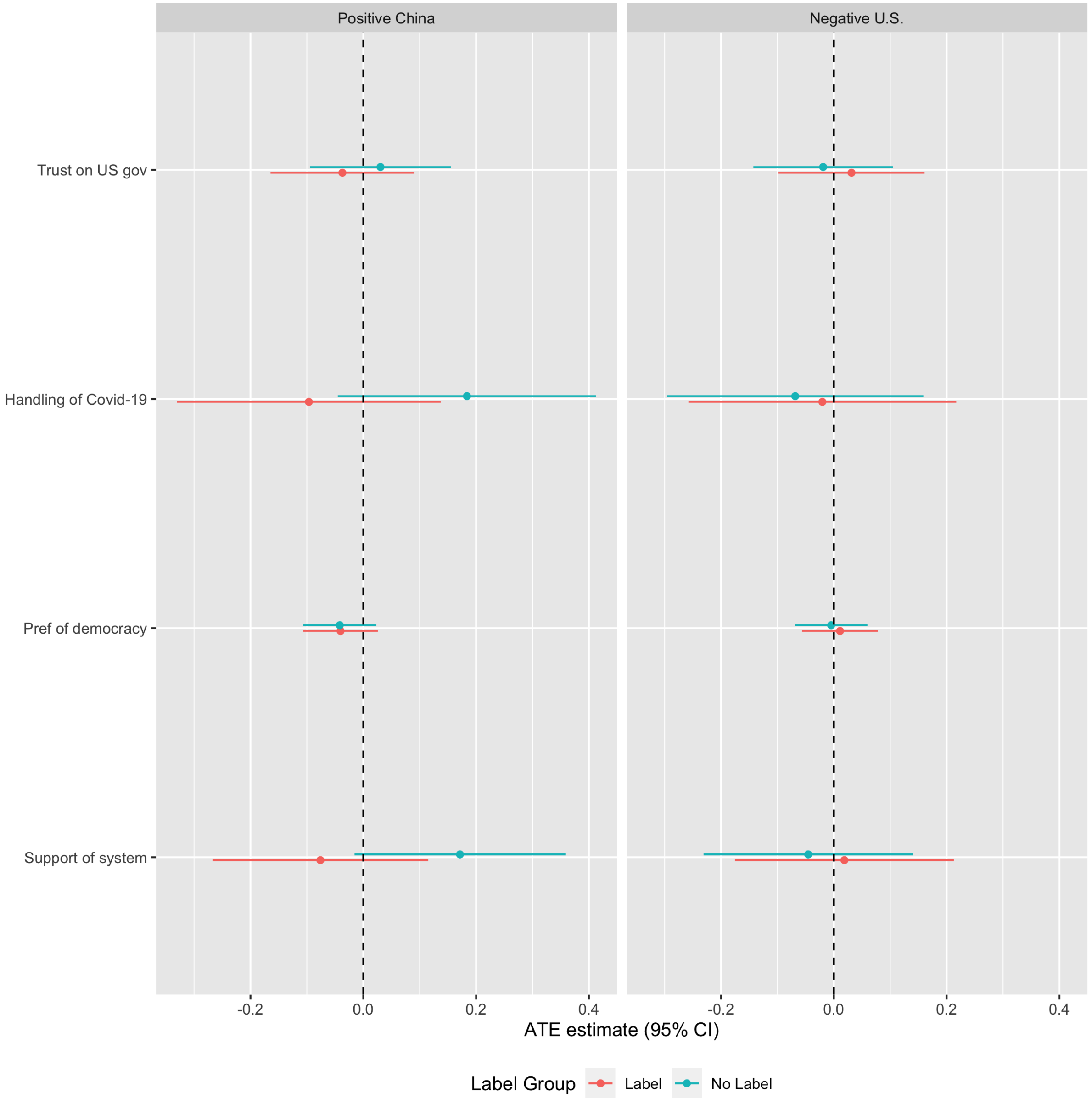
In this subsection, I describe the effect of exposure to public diplomacy messages on opinions toward the sending country. Figure 1.3 reports the regression coefficient estimates of the treatment effects on attitudes toward China. It shows that, the "positive-China" messages largely had their expected effects. Not only are all the coefficients on the hypothesized direction, 7 out of 10 of them achieved statistical significance. In other words, viewing the positive china tweets improved the general view of China and people's evaluations of China's economic expansion. Also, it largely improved participants' evaluation of China's handling of the Covid-19 and and their willingness to visit China in the future, and largely reduced the perceived China threat.

The right panel of Figure 1.3 depicts that, regardless of government labeling or not, audiences' perceptions of China are not influenced by “negative-US" messages in any of the five variables. The results demonstrate that the American participants were not offended by those negative remarks about the US. In the “negative-US" group with labels, participants could determine the job and country of the Chinese diplomats through the “China government official" labels, but they were not engaging in rebutting attitudes toward China: the insignificant results show that they did not hold a more negative opinion about China as a result of the offending messages.

Last but not least, how do the government labels affect the processing of public diplomacy messages? As Figure 1.3 shows, the confidence intervals of the coefficients largely overlap with each other to a significant degree, showing that the effects of the tweets are similar with or without labels. The differences between positive China tweets with labels and those without labels are somewhat larger with regard to their effects on the evaluation of China's handling of Covid and perceived effect of China's economic expansion are somewhat larger. Using the t-test, I compared the mean estimates of the two variables , the p-value for each is 0.135 and 0.058. It shows for the perceived effect of China's economic expansion, the non-labeled “positive-China" messages are relatively more effective than labeled messages at a significance level of 0.10. However, when considering other variables, in general, Twitter labels on government accounts have little effect on influencing Americans' attitudes toward China.

Can Twitter Diplomacy Affect Americans' Views of the US?

Figure 1.4: Effects of negative-US messages and positive-CH messages (US questions)



Aside from promoting national images, public diplomacy can also influence recipients' views of their own country. For example, the US embassy implicitly criticized the Chinese government in Chinese on Weibo, a social media platform in China (Huang 2021). In this subsection, I investigate whether public diplomacy messages can influence Americans' opinions of their own country.

Figure 1.4 presents the coefficient estimates of the treatment effects. In general, it appears that both "positive-China" and "negative-US" messages have minimal impact on participants' views of their own country. The left panel of Figure 1.4 illustrates that with or without labels, messages highlighting China's successes are not able to change participants' attitudes toward the US, despite their significant potential to cultivate a positive perception of China. Using the t-test, I compared the mean estimates of support of system and the evaluation of the US's handling of Covid . P-values are 0.009 and 0.016, respectively. It shows that for the two variables, the effects of tweets without labels are more positive than tweets with labels

As shown in the right panel of Figure 1.4, negative information about the US from Chinese diplomats has a very limited impact on the audiences' opinion of the United States. Trust on US government and the evaluation of the US's handling of Covid both measure participants' view of the federal government, the preference for democracy and support of system measure their confidence in democratic institutions. Subjects' attitudes cannot easily be influenced in either of these topics. It is likely that there are two reasons for this. The first is that people are likely to have firmer opinions about their own country than about foreign countries. Therefore, opinions about foreign countries can be changed easily, but not opinions about their own country. Second, Americans are already familiar with the criticism directed at their government, so any news articles critical of it will not change their existing perspective. Besides, attitudes toward democracy and political institutions are so latent that they cannot be easily influenced by exposure to a few social media posts. Together, Figure 1.3 and Figure 1.4 suggest that the recognition of achievements of another country with a different political institution has no impact on attitudes toward their own country and political institution.

Subgroup Analysis: By Partisanship

Americans' attitudes toward China are heavily influenced by their partisanship. People who self-identify as Democrats tend to have a warmer attitude toward China than Republicans (Aldrich, Lu and Kang 2015). Could the predisposition impact the way the information from Chinese diplomats is processed? This subsection examines whether partisanship has an impact on participants' attitudes toward China and the US.

Figure 1.5 shows the mean estimates of China-related variables for the three content groups based on partisanship. There were originally 567 Democrats, 254 Republicans, and 174 Independents. For the purposes of understanding the heterogeneity among Democrats and Republicans, I eliminated those who were identified as independents. In Figure 1.5, the variables in all five panels except Panel 3 indicate a positive direction, meaning a higher value indicates a more positive attitude toward China. It suggests that Republicans have more negative attitudes toward China than their Democrat counterparts in any of the three content groups, in terms of the general view of China, evaluation of the Chinese government's handling of Covid-19, the perceived impact of China's economic development on the US's economy, and the willingness to visit China in the future. As for perceived China threats, Republicans have a significantly higher mean estimate than Democrats across the three groups, indicating that they consider China more threatening than Democrats. In Table 1.1, the third row supports the results presented in Figure 1.5. Table 1.1 shows that, with the exception of Model 4, being a

Republican is more likely to lead to dislike of China.

Figure 1.6 shows the mean estimates of US-related variables across the three content groups based on partisanship. Both Panel 1 and Panel 3 demonstrates that Democrats and Republicans share similiar views regarding trust in the federal government and their general preference toward democracy. Panels 2 and 4 differ slightly. As Panel 2 indicates, Democrats' ratings on the US's handling of Covid-19 are significantly lower than Republicans' ratings. Panel 4 shows that Democrats are significantly more suspicious about the current political system that the US has adopted . The third row in Table 2 confirms the results from Figure 1.6: partisanship is significant only for the ratings on US's handling of Covid-19 and the support of current system.

Next, I would like to discuss the heterogeneity of treatment effects in partisanship. Because Figure 1.5 indicate that being a Democrat or Republican could have a significant impact on the opinion regarding China, I consider the interaction effects between the content groups and partisanship. Specifically, I would like to know whether being a Democrat or Republican influences the processing of public diplomacy messages. Tables 1.1 and 1.2 show that the interaction effects are almost always statistically insignificant. While Model 4 in Table 1.1 indicates that the interaction effect between the negative-US group and being a Republican is significant, the confidence level is only 90%.

Despite the differences between Democrats and Republicans being evident, Figure 1.5 and Figure 1.6 demonstrate that the treatment groups did not alter their original attitudes differently. In other words, the gap of their attitudes on several issues has shown in the control group, which means either negative-US or positive-China content had very limited impacts on the attitude gap. According to the results, even though partisanship is associated with their attitudes toward China and the US, it would not lead to a greater level of trust or distrust in public diplomacy messages.

Figure 1.5: Mean estimates of China-related variables based on partisanship

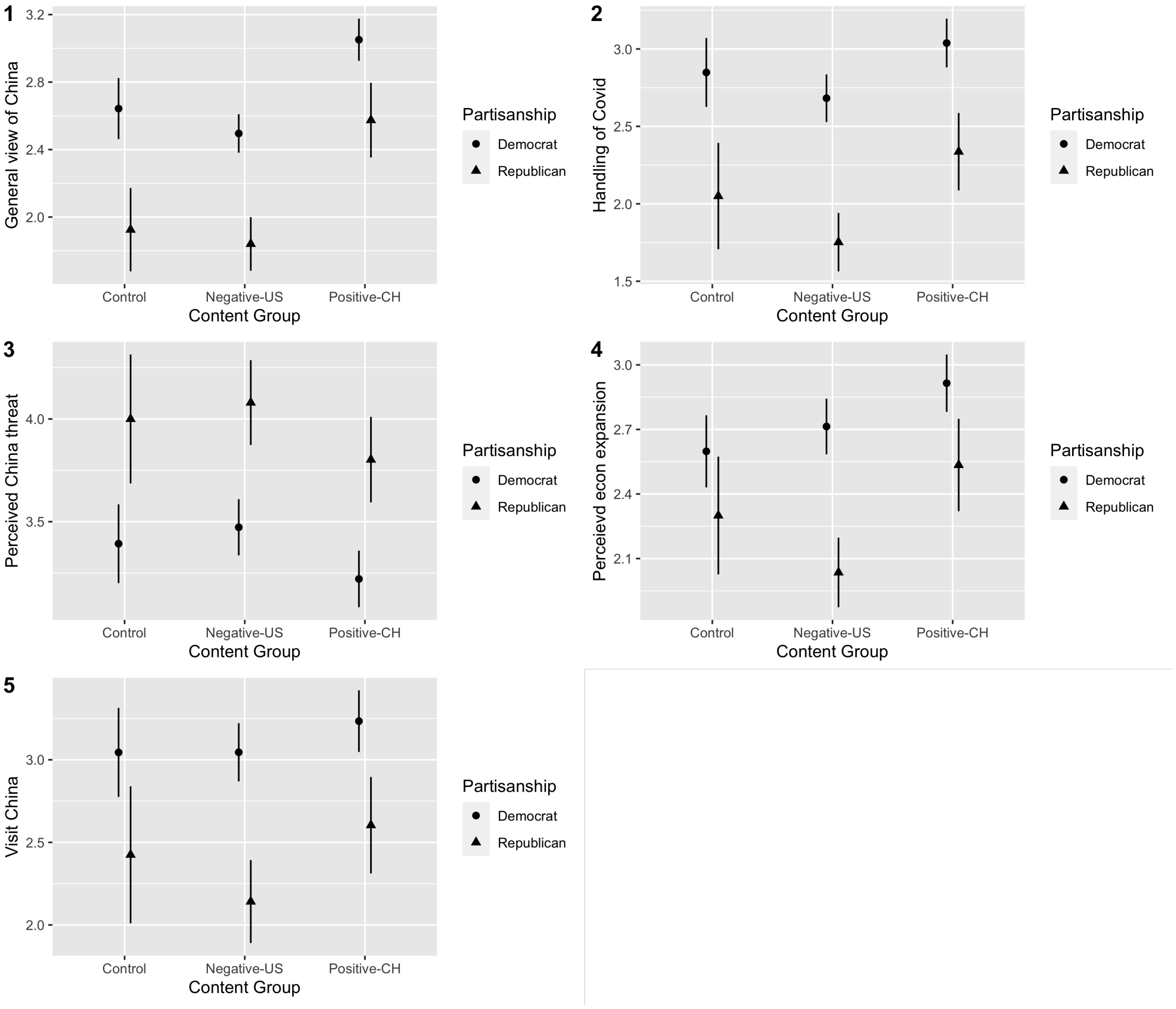


Table 1.1: Interaction effect between content group and partisanship (China questions)

	Dependent variable:				
	General view of China	Handling of Covid	Perceived China threat	Perceived econ expan	Visit China
Negative-US	−0.147	−0.166	0.080	0.115	0.001
	(0.110)	(0.137)	(0.123)	(0.114)	(0.164)
Positive-CH	0.408***	0.190	−0.172	0.317***	0.189
	(0.109)	(0.136)	(0.122)	(0.113)	(0.162)
Republican	−0.718***	−0.798***	0.607***	−0.298	−0.620**
	(0.174)	(0.218)	(0.196)	(0.182)	(0.260)
Negative-US × Republican	0.063	−0.131	−0.0002	−0.380*	−0.284
	(0.206)	(0.257)	(0.231)	(0.214)	(0.307)
Positive-CH × Republican	0.241	0.097	−0.026	−0.082	−0.010
	(0.207)	(0.259)	(0.233)	(0.216)	(0.310)
Constant	2.643***	2.848***	3.393***	2.598***	3.045***
	(0.089)	(0.112)	(0.100)	(0.093)	(0.133)
Observations	821	821	821	821	821
R^2	0.154	0.119	0.076	0.077	0.067
Adjusted R^2	0.149	0.113	0.070	0.071	0.061
Residual Std. Error (df = 815)	0.946	1.183	1.062	0.986	1.412
F Statistic (df = 5; 815)	29.736***	21.987***	13.418***	13.564***	11.644***

Note: SEs in parentheses. *p<0.1; **p<0.05; ***p<0.01

Figure 1.6: Mean estimates of US-related variables based on partisanship

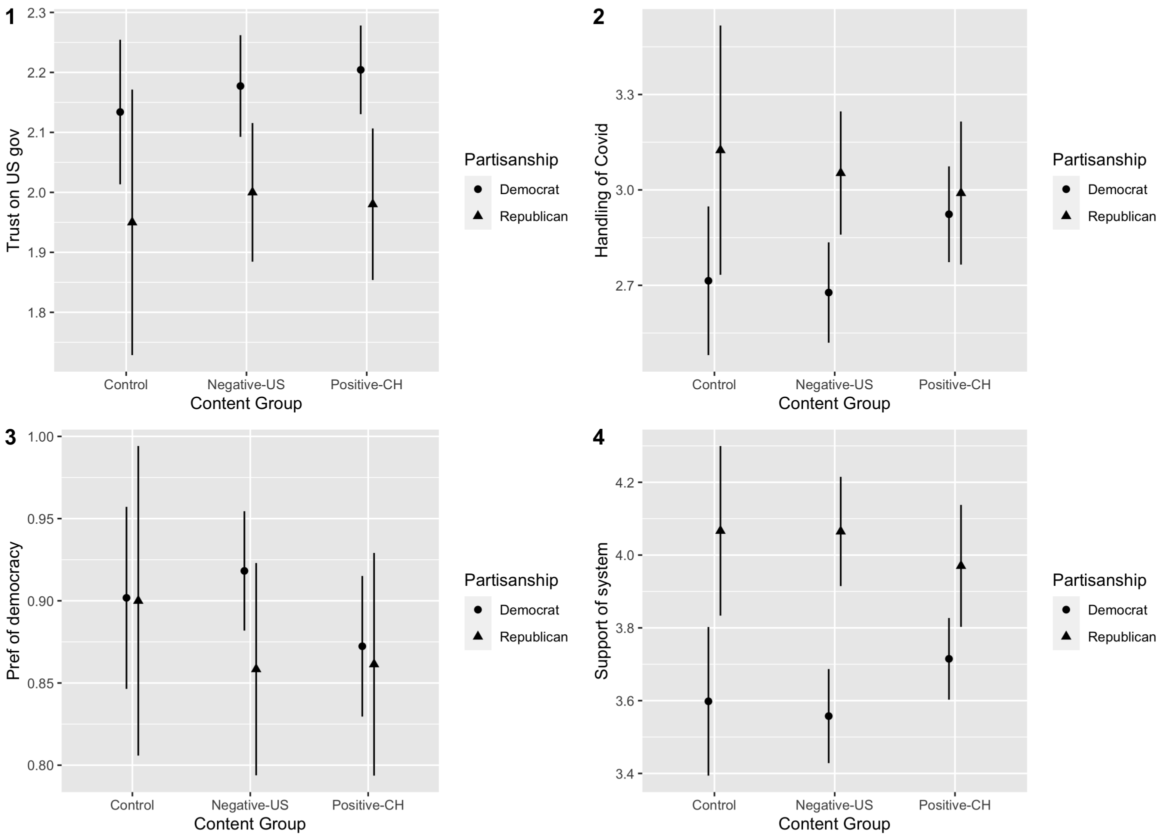


Table 1.2: Interaction effects between content groups and partisanship (US questions)

	Dependent variable:			
	Trust on US gov	Handling of Covid	Pref of democracy	Support of system
	OLS	*OLS*	*normal*	*OLS*
Negative-US	0.043	−0.037	0.016	−0.041
	(0.073)	(0.137)	(0.037)	(0.107)
Positive-CH	0.070	0.209	−0.029	0.117
	(0.072)	(0.135)	(0.036)	(0.106)
Republican	−0.184	0.411*	−0.002	0.468***
	(0.116)	(0.217)	(0.058)	(0.170)
Negative-US × Republican	0.007	−0.035	−0.058	0.039
	(0.137)	(0.256)	(0.069)	(0.201)
Positive-CH × Republican	−0.040	−0.344	−0.009	−0.213
	(0.138)	(0.259)	(0.070)	(0.202)
Constant	2.134***	2.714***	0.902***	3.598***
	(0.059)	(0.111)	(0.030)	(0.087)
Observations	821	821	821	821
R^2	0.022	0.017		0.043
Adjusted R^2	0.016	0.011		0.037
Log Likelihood			−220.292	
Akaike Inf. Crit.			452.585	
Residual Std. Error (df = 815)	0.628	1.179		0.923
F Statistic (df = 5; 815)	3.639***	2.789**		7.305***

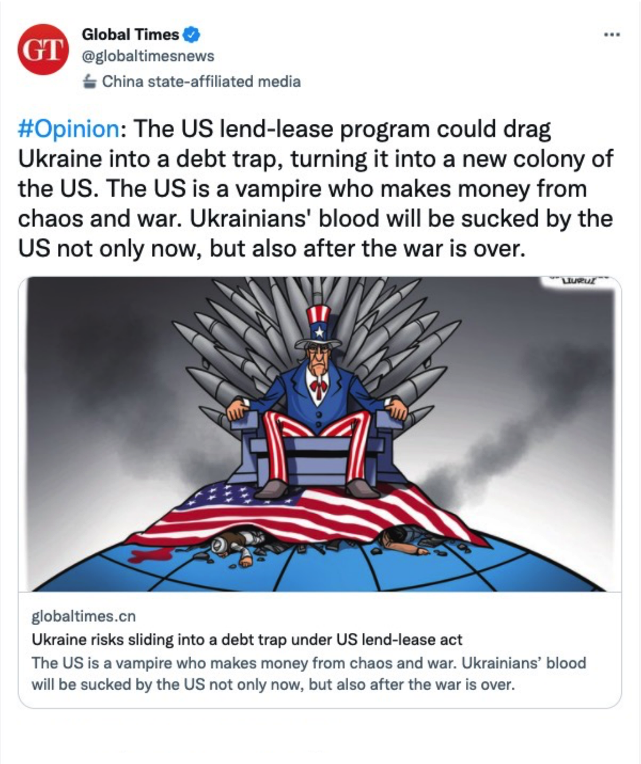
Note: *p<0.1; **p<0.05; ***p<0.01

1.4 Experiment 2: Chinese state media's tweets

1.4.1 Research Design

In August 2022, I conducted another survey experiment using Prolific to verify the results and conclusions drawn from the previous experiment. The present experiment differs from the previous one in three ways. First, rather than tweets from Chinese diplomats' Twitter accounts, participants were exposed to tweets from Chinese state media's Twitter accounts. In terms of the strategy of public diplomacy, tweets from state media and diplomats are similar since they are both endorsed by the Chinese government and are capable of conveying information to foreign audiences. Second, as mentioned in the previous section, the criticisms of the US in negative-US tweets are very prevalent, which may lead participants to react little to topics that they are already familiar with in the first experiment. In order to explore the ceiling effect explanation, I selected critiques that might be somewhat less well-known among American citizens. For example, Figure 1.7 shows how Global Times, a Chinese state media, criticizes the US for dragging Ukraine into debt. Furthermore, the sample of participants in the first experiment is not nationally representative. Instead of *Cloud Research*, I used *Prolific*, an online research platform that allows me to collect a nationally representative sample.

Figure 1.7: An example of negative-US tweet


Global Times
@globaltimesnews
China state-affiliated media

#Opinion: The US lend-lease program could drag Ukraine into a debt trap, turning it into a new colony of the US. The US is a vampire who makes money from chaos and war. Ukrainians' blood will be sucked by the US not only now, but also after the war is over.

globaltimes.cn
Ukraine risks sliding into a debt trap under US lend-lease act
The US is a vampire who makes money from chaos and war. Ukrainians' blood will be sucked by the US not only now, but also after the war is over.

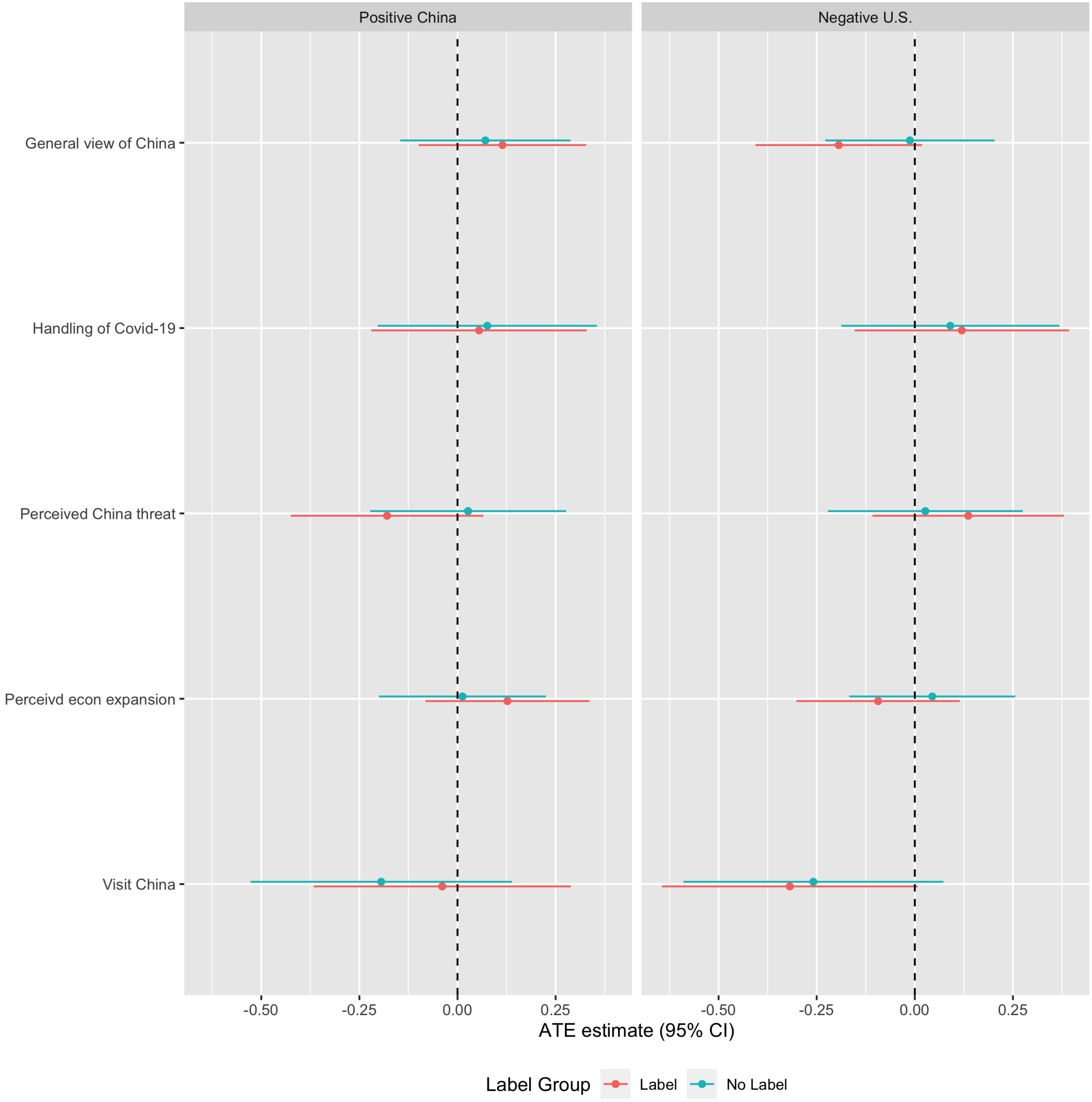
Except for the outlets, tweet content, and survey platform, the experimental design is identical to Figure 1.2. Three "positive-China" tweets demonstrate the arrival of the first batch of rice donated by China in Sri Lanka (Tweet 1), China's increased life expectancy (Tweet 2), and China's increased use of new energy vehicles (Tweet 3). Three "Negative-US" tweets highlight the fact that censorship of books in the United States is on the rise (Tweet 1), that the US's lend-lease program may put too much stress on Ukraine's debt burden (Tweet 2), and that half of the states restrict voting access (Tweet 3). In the "positive-China" group, Tweet 1 and Tweet 3 come from People's Daily, while Tweet 2 comes from Global Times. In the "negative-US" group, Tweet 1 and Tweet 3 are from China Global Television Network (CGTN), while Tweet 2 is from Global Times. Since CGTN is an English news channel that reports more foreign news, it provides more news on US-related topics than other state media. In comparison to the first experiment, there is no difference in the content and order of the irrelevant tweets.

The dependent variables used in Experiment 1 were used in the present experiment. I also added a manipulation-check question. After being exposed to the treatments, participants were asked if they had seen any government labels on the tweets. There were 755 participants who completed the survey and provided usable responses to the survey. Descriptive statistics could be found in the appendix.

1.4.2 Analysis and Results

Do State Media Tweets Affect Americans' Views of China?

Figure 1.8: Effects of negative-US messages and positive-CH messages (China questions)



This subsection examines the effects of the negative-US and positive-China tweets on American participants' perceptions of China. According to Figure 1.8, both groups of tweets have very limited effects on participants' perceptions of China. Despite the significant regression estimates at the 0.1 level for the willingness to visit China in the right panel, the overall picture indicates that the respondents in the treatment groups have no significantly different views regarding China than their counterparts in the control group, regardless of whether they are exposed to tweets with government labels.

What is the impact of government labels on the reaction to public diplomacy messages from state media? Figure 1.8 shows that, for most dependent variables, the government labels do not have a significant effect on convincing or warning the participants. Although the right panel indicates that participants in the negative-US group with labeling are more likely to favorably view China and plan to visit China in the future, the results are statistically significant at a significance level of 0.1. Figure 1.8 illustrates that government labels do not significantly influence the impact of public diplomacy messages.

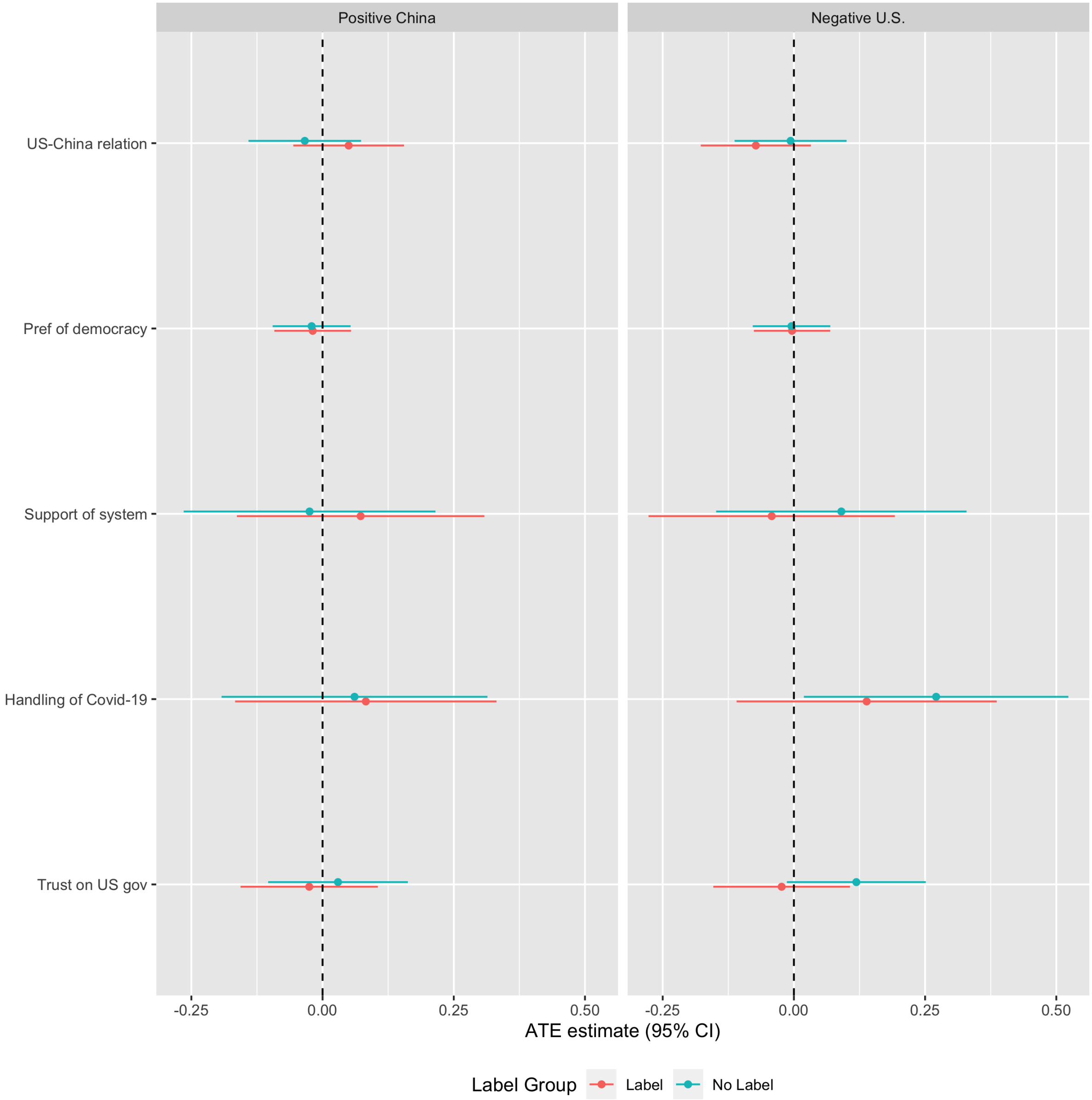
We might wonder if the participants were actually aware of those government labels. In Table 1.3, the number of participants who saw the government labels is reported by group. In all groups, less than half of the participants noticed the labels. It is noteworthy that some participants in the non-labelled group reported that they had also observed the labels. Twitter may need to reconsider its labeling strategy if the government labels are too unnoticeable to convey a warning signal.

Table 1.3: Participants in each group who saw government labels

	0	1
Control	153	0
“Negative-US" group (labeled)	104	53
“Negative-US" group (not labeled)	115	32
“Positive-CH" group (labeled)	112	42
“Positive-CH" group (not labeled)	119	25

Do State Media Tweets Affect Americans' Views of the US?

Figure 1.9: Effects of negative-US messages and positive-CH messages (US questions)



This subsection aims to answer the question: whether public diplomacy messages can affect people's opinions about their own country. Figure 1.9 shows the average treatment effects on US-related dependent variables. According to Figure 1.9, those public diplomacy messages from the Chinese state media do not have a significant impact on people's perceptions of their own country. The conclusion is confirmed in Experiment 1.

One might notice the blue lines for the evaluation of the US's handing's of Covid and trust on federal government. It seems that the exposure of negative tweets about the US may result in a backfire reaction, in which respondents may tend to defend their country by giving a higher evaluation. It is clear from the picture as a whole, that the impact of those tweets is very limited given the marginal significance and inconsistent results in other variables. Similar to Experiment 1, because the red and blue lines largely overlap, the government labels play little role in the process.

Subgroup Analysis: By Partisanship

I investigated how partisanship affected the processing of public diplomacy messages in this section. Table 1.4 reports the interaction effects between content groups (negative-US vs. positive-China, regardless of the labeling) for China-related variables. It appears that the results are largely similar to those presented in Table 1.1: being a republican or a democrat does not have an effect on the consequences of being exposed to the tweets. Nevertheless, Column 2 and Column 4 indicates negative and significant interaction terms between exposure to positive-China tweets and being a Republican. Figure 1.10 and Figure 1.11 show the prediction of the perceived impact of China's economic expansion and ratings on China's handling of Covid based on content group and partisanship. It appears that republicans are more likely to perceive China's economic expansion as negative for the US than democrats, but republicans' perceptions across the three content groups are not significantly different given the largely overlapped confidence intervals. The pattern can be observed in Figure 1.11. Since the outcomes are similar, only the results for the economic variable and Covid variable are selected, while the findings for other outcome variables can be found in the appendix.

The interaction effects for US-related variables are shown in Table 1.5. The results are similar to Table 1.2: public diplomacy messages do not affect people's perceptions of their country, and partisanship does not affect the influence of public diplomacy messages.

Table 1.4: Interaction effect between content group and partisanship (China questions)

	Dependent variable:				
	General View of China	Handling of Covid	Perceived China threat	Perceived econ expan	Visit China
Negative-US	−0.163	0.119	0.075	−0.041	−0.061
	(0.124)	(0.158)	(0.139)	(0.125)	(0.195)
Positive-CH	0.179	0.252	−0.085	0.162	0.021
	(0.125)	(0.160)	(0.140)	(0.126)	(0.196)
Republican	-0.426^{**}	-0.456^{*}	0.583^{***}	−0.229	-0.545^{*}
	(0.197)	(0.252)	(0.222)	(0.199)	(0.310)
Negative-US × Republican	0.065	−0.139	−0.143	−0.013	−0.127
	(0.241)	(0.310)	(0.272)	(0.244)	(0.381)
Positive-CH × Republican	−0.311	-0.584^{*}	0.239	-0.490^{**}	−0.135
	(0.238)	(0.305)	(0.268)	(0.240)	(0.375)
Constant	2.460^{***}	2.690^{***}	3.517^{***}	2.529^{***}	3.011^{***}
	(0.100)	(0.128)	(0.112)	(0.101)	(0.157)
Observations	566	566	566	566	566
R^2	0.079	0.085	0.074	0.056	0.040
Adjusted R^2	0.071	0.076	0.066	0.047	0.031
Residual Std. Error (df = 560)	0.930	1.192	1.048	0.940	1.466
F Statistic (df = 5; 560)	9.595^{***}	10.340^{***}	8.957^{***}	6.602^{***}	4.657^{***}

Note: SEs in parentheses. *p<0.1; **p<0.05; ***p<0.01

Figure 1.10: The predicted values of perceived China's economic expansion

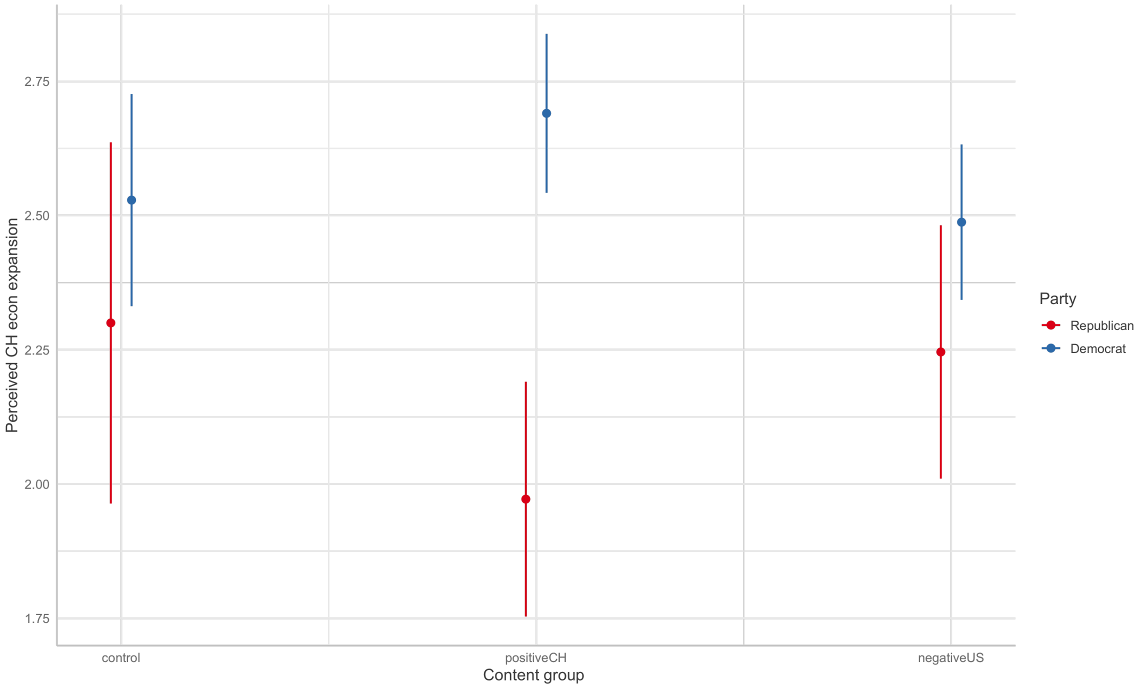


Figure 1.11: The predicted values of China's handling of Covid-19

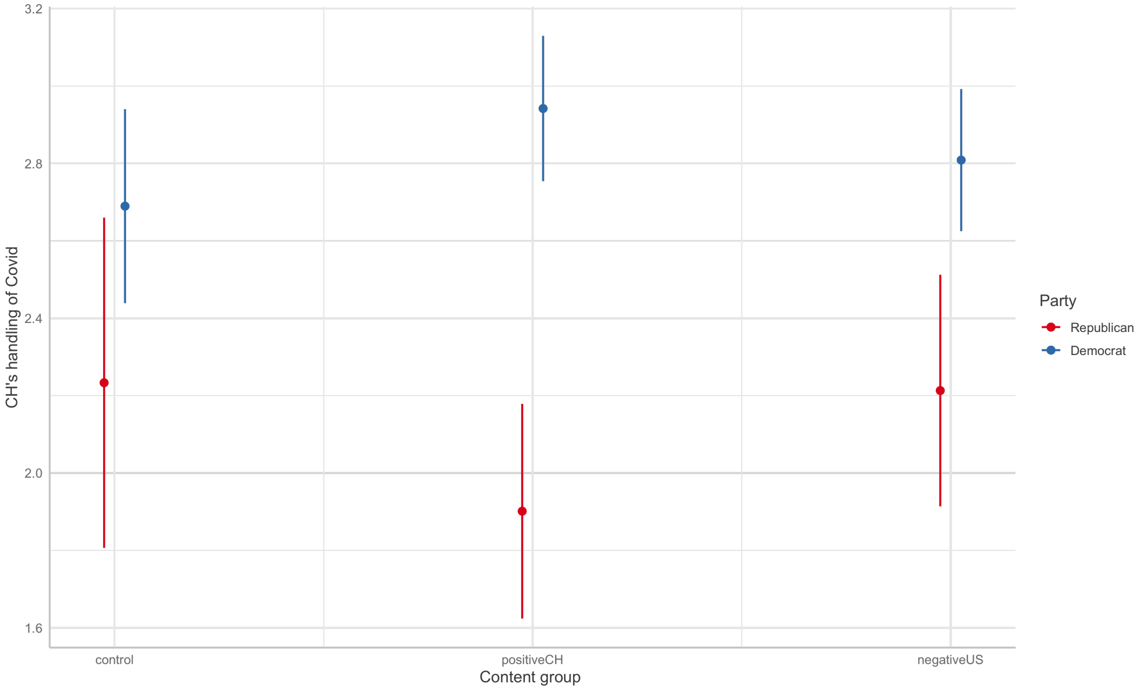


Table 1.5: Interaction effect between content group and partisanship (US questions)

	Dependent variable:			
	Trust on US gov	Handling of Covid	Pref of democracy	Support of system
	OLS	*OLS*	*normal*	*OLS*
Negative-US	0.051	0.193	0.012	0.190
	(0.074)	(0.149)	(0.041)	(0.133)
Positive-CH	−0.036	0.050	−0.005	0.069
	(0.075)	(0.150)	(0.041)	(0.134)
Republican	−0.123	0.177	−0.008	0.864^{***}
	(0.119)	(0.237)	(0.065)	(0.211)
Negative-US × Republican	−0.099	−0.169	−0.059	-0.455^{*}
	(0.145)	(0.291)	(0.079)	(0.259)
Positive-CH × Republican	−0.089	−0.231	−0.050	−0.251
	(0.143)	(0.286)	(0.078)	(0.255)
Constant	2.023^{***}	2.356^{***}	0.908^{***}	3.314^{***}
	(0.060)	(0.120)	(0.033)	(0.107)
Observations	566	566	566	566
R^2	0.032	0.006		0.071
Adjusted R^2	0.023	−0.003		0.063
Log Likelihood			−130.870	
Akaike Inf. Crit.			273.740	
Residual Std. Error (df = 560)	0.560	1.120		0.998
F Statistic (df = 5; 560)	3.658^{***}	0.675		8.596^{***}

Note: SEs in parentheses. *p<0.1; **p<0.05; ***p<0.01

1.5 Discussion

Can public diplomacy messages work? The results of the two studies indicate that the effects of public diplomacy messages can be mixed. The first study shows that positive messages from Chinese diplomats, highlighting the sending country's accomplishments, are more successful in fostering a positive national image and persuading audiences in the desired direction. In contrast, public diplomacy messages criticizing the US do not significantly affect American audiences. Specifically, those criticisms have minimal impact on audiences' attitudes toward their own countries. In the second study, tweets from Chinese state-controlled media Twitter accounts were used instead of Chinese diplomats' tweets, revealing a somewhat different scenario. Contrary to the findings from Experiment 1, exposure to positive-China tweets did not lead to a more positive view of China among American participants.

Despite the mixed results, Experiment 2 also corroborated some findings from Experiment 1. Both experiments show that negative messages do not result in a rebutting attitude, such as a lower evaluation of China. Further, they support the widely-held opinion that China is more favorable to Democrats than Republicans (Gries and Crowson 2010, Gries, Cai and Crowson 2010, Aldrich, Lu and Kang 2015), but generally that will not impact how they handle public diplomacy messages from China in most topics. Additionally, both experiments indicate that government labels on Twitter have minimal influence on people's opinions. A manipulation-check question was added to the second experiment, and it was found that only 33 percent of the participants had noticed the labels. Thus, the labeling may not make a significant difference as people might expect.

Why did the "positive-China" message work in Experiment 1 but not in Experiment 2? A possible explanation is the shift in anti-China sentiment. The intensification of anti-China sentiment since 2021 may have played a role in this change. According to Pew Research Center [1], 76% of American public expressed a unfavorable opinion of China in 2021 (the lowest point from 2020 to 2022), while in 2022, it significantly increased to 82%. Given that the poll used an online panel, it is plausible that this trend may also be present in my participant samples. Consequently, due to the unfavorable view, Americans might be more resistant to information depicting a positive image of China.

To the best of my knowledge, this study is the first to examine the effects of China's public diplomacy messages on American participants, providing empirical insights into the workings and effectiveness of public diplomacy.It is also enlightening to compare this paper's findings with prior research that illustrates the impact of exposure to public diplomacy messages on citizens' opinions about their own country and foreign nations (Mattingly and Sundquist 2021). Mattingly and Sundquist (2021) focuses on the messages' effects on the citizens of third countries, while this article examines citizens of the rival countries. The paper's findings, combined with prior research, suggest that positive public diplomacy messages emphasizing the sending country's positive aspects are more effective in persuading foreign audiences in the desired direction than negative messages about rival countries. This holds true whether the foreign audiences are citizens of rival countries or third countries.

One could raise a concern common that exposing participants to tweets is not a natural process. Participants in this study might not have the opportunity to view tweets from Chinese diplomats or Chinese state-controlled media because they might not follow them. It is true that the effects of public diplomacy messages in the real world may differ, as people who follow foreign diplomats might not be the same as those who do not. However, the study reveals potential effects: what if they see the tweets? For future research aiming to maximize external validity, researchers can recruit participants from the followers of diplomats and state-controlled media instead of using online panels. Furthermore, online panels have a notable limitation in that survey takers tend to be more liberal than conservative. Given that the number of Democrats is approximately twice as large as the number of Republicans in both experiments, the results concerning partisanship may be biased, indicating a need for further research in this area.

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[1] https://www.pewresearch.org/short-reads/2022/09/28/some-americans-views-of-china-turned-more-negative-after-2020-but-others-became-more-positive/ft_2022-09-28_viewsofchina_01/

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1.6 Appendix

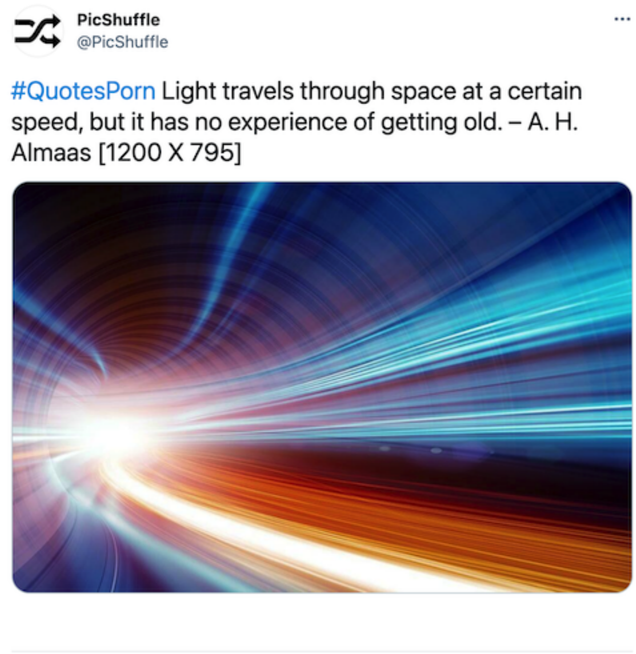
1.6.1 Experiment 1: *Cloud Research*

Table 1.6: Summary Statistics (*Cloud Research* Experiment)

Statistic	N	Mean	St. Dev.	Min	Pctl(25)	Pctl(75)	Max
Gender	995	0.489	0.500	0	0	1	1
Income	995	9.978	3.828	1	7	13	18
Race	995	1.575	1.191	1	1	1.5	5
Edu	995	11.375	1.371	2	10	12	14
Age	995	3.092	1.304	1	2	4	7
Party	995	3.336	1.867	1	2	5	7
Ideology	995	3.346	1.742	1	2	5	7
US_role	995	2.706	0.733	1	2	3	4
View_China	995	2.549	1.022	1	2	3	5
China_econ	995	2.609	1.008	1	2	3	5
China_threat	995	3.546	1.089	1	3	4	5
Covid_china	995	2.587	1.260	1	1	4	5
Covid_us	995	2.813	1.171	1	2	4	5
Visit_China	995	2.929	1.451	1	1	4	5
View_democracy	995	0.874	0.332	0	1	1	1
View_DC	995	2.079	0.637	1	2	2	4
Long_run_att	995	3.488	1.082	1	3	4	5
Support_att	995	3.765	1.070	1	3	5	5
Than_other_att	995	3.818	1.200	1	3	5	5

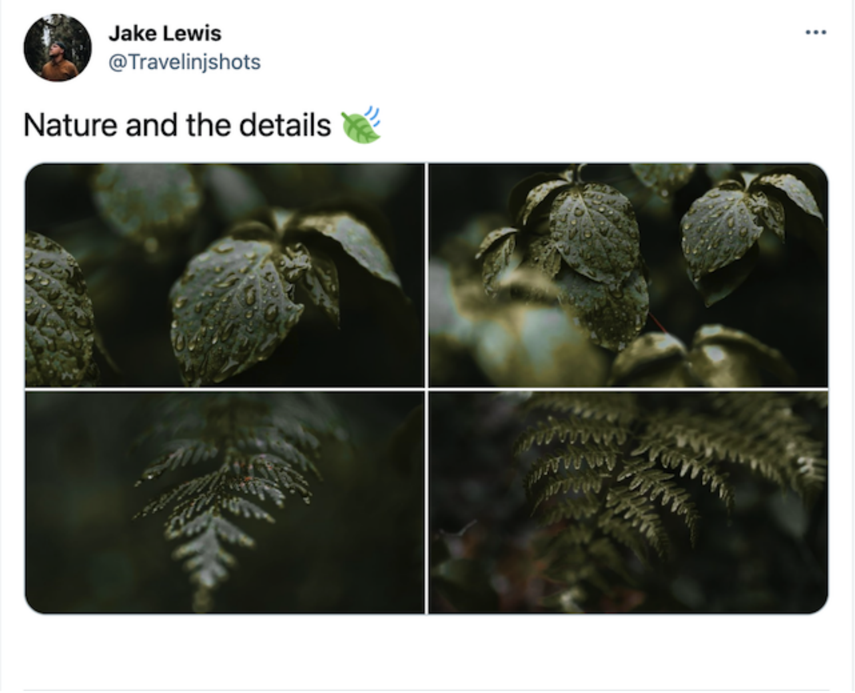
Treatment Materials

Figure 1.12: Irrelevant Tweet_1


PicShuffle
@PicShuffle
···

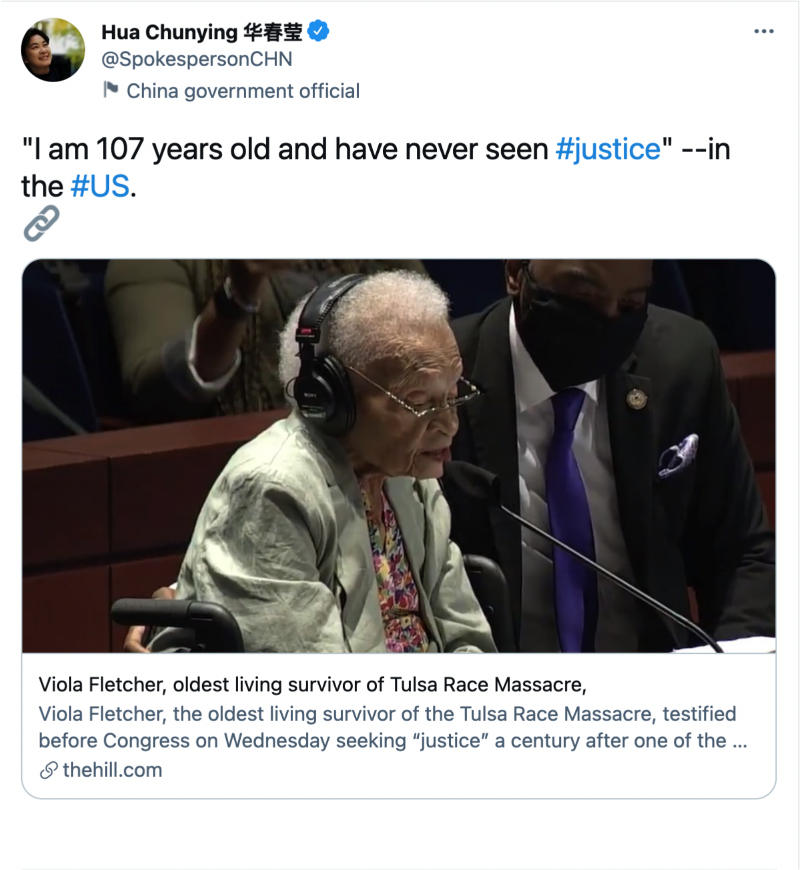
#QuotesPorn Light travels through space at a certain speed, but it has no experience of getting old. – A. H. Almaas [1200 X 795]

Figure 1.13: Irrelevant Tweet_2


Jake Lewis
@Travelinjshots
···

Nature and the details 🍃

Figure 1.14: NegativeUS_1

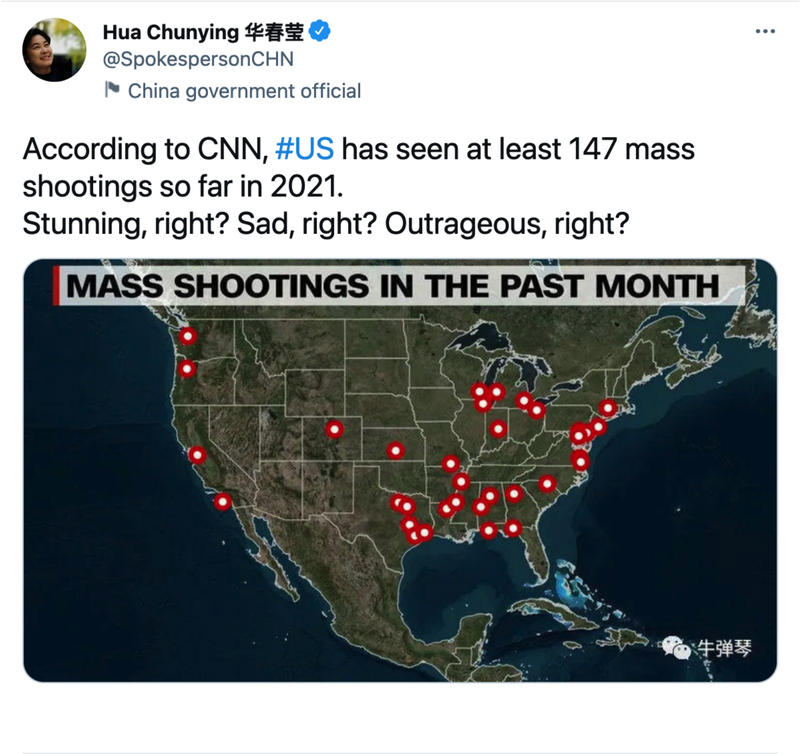


Hua Chunying 华春莹
@SpokespersonCHN
China government official

"I am 107 years old and have never seen #justice" --in the #US.

Viola Fletcher, oldest living survivor of Tulsa Race Massacre,
Viola Fletcher, the oldest living survivor of the Tulsa Race Massacre, testified before Congress on Wednesday seeking “justice” a century after one of the ...
thehill.com

Figure 1.15: NegativeUS_2

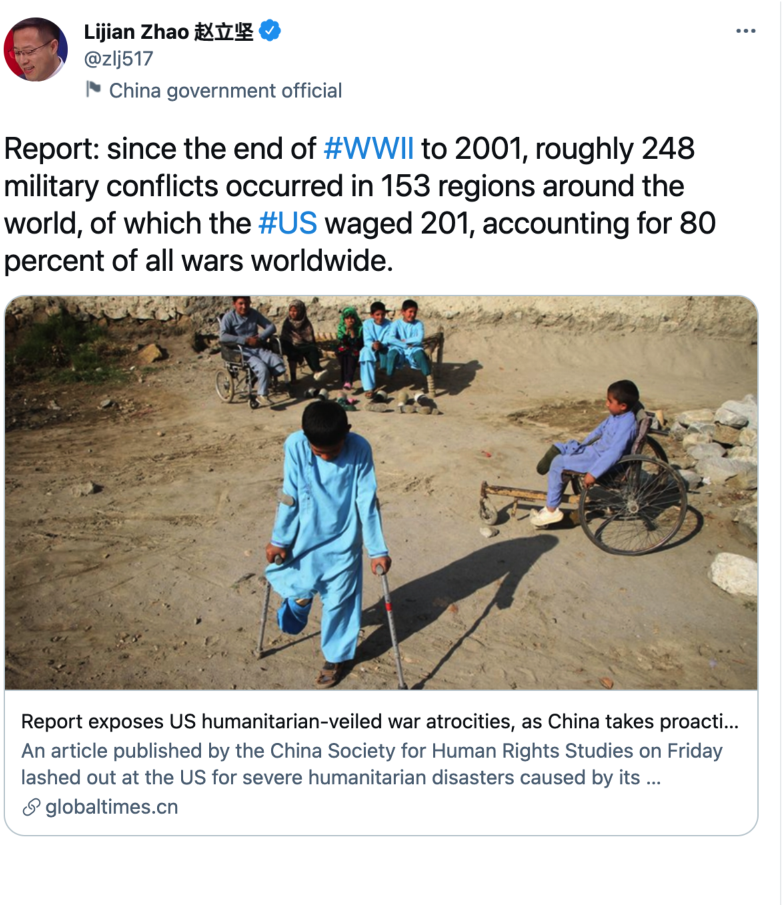


Hua Chunying 华春莹
@SpokespersonCHN
China government official

According to CNN, #US has seen at least 147 mass shootings so far in 2021.
Stunning, right? Sad, right? Outrageous, right?

MASS SHOOTINGS IN THE PAST MONTH
牛弹琴

Figure 1.16: NegativeUS_3

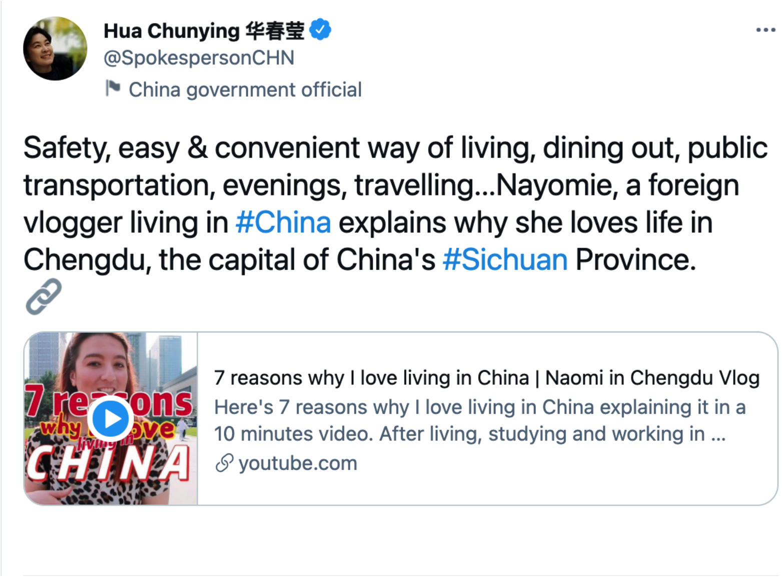


Lijian Zhao 赵立坚
@zlj517
China government official

Report: since the end of #WWII to 2001, roughly 248 military conflicts occurred in 153 regions around the world, of which the #US waged 201, accounting for 80 percent of all wars worldwide.

Report exposes US humanitarian-veiled war atrocities, as China takes proacti...
An article published by the China Society for Human Rights Studies on Friday lashed out at the US for severe humanitarian disasters caused by its ...
globaltimes.cn

Figure 1.17: PositiveCH_1

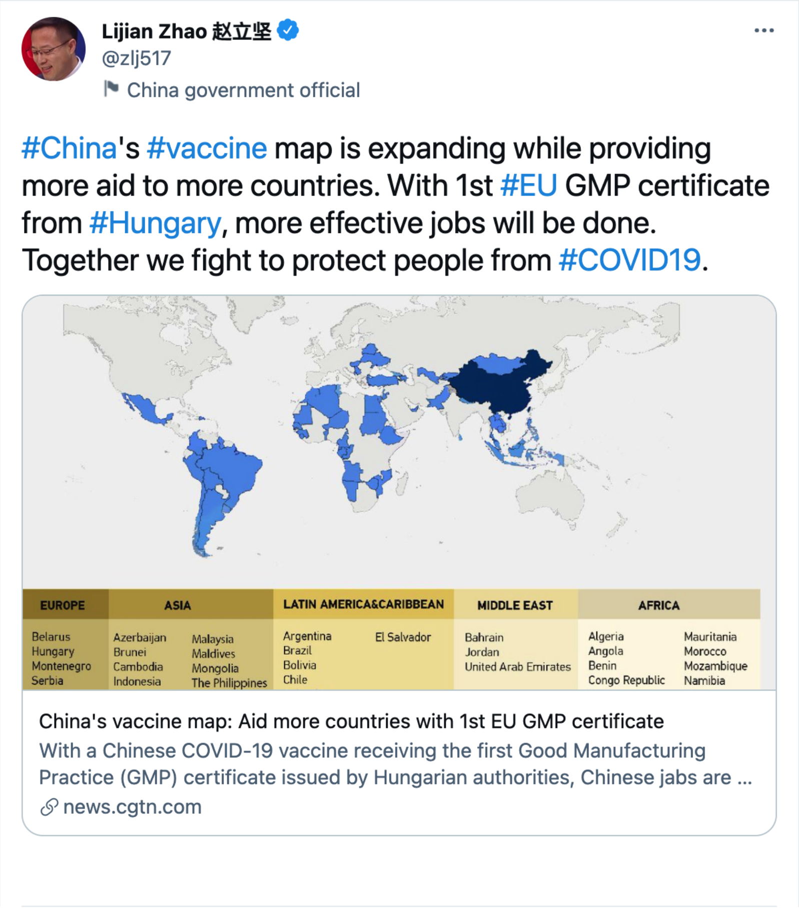


Hua Chunying 华春莹
@SpokespersonCHN
China government official

Safety, easy & convenient way of living, dining out, public transportation, evenings, travelling...Nayomie, a foreign vlogger living in #China explains why she loves life in Chengdu, the capital of China's #Sichuan Province.

7 reasons why I love living in China | Naomi in Chengdu Vlog
Here's 7 reasons why I love living in China explaining it in a 10 minutes video. After living, studying and working in ...
youtube.com

Figure 1.18: PositiveCH_2



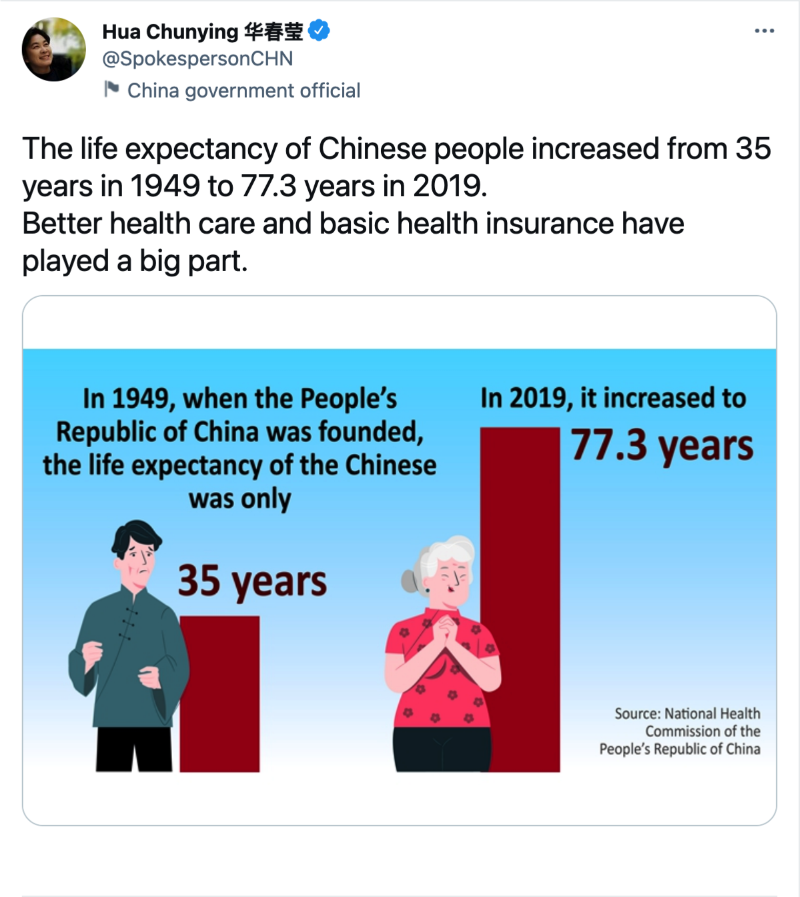
Lijian Zhao 赵立坚
@zlj517
China government official

#China's #vaccine map is expanding while providing more aid to more countries. With 1st #EU GMP certificate from #Hungary, more effective jobs will be done. Together we fight to protect people from #COVID19.

EUROPE	ASIA		LATIN AMERICA&CARIBBEAN		MIDDLE EAST	AFRICA	
Belarus Hungary Montenegro Serbia	Azerbaijan Brunei Cambodia Indonesia	Malaysia Maldives Mongolia The Philippines	Argentina Brazil Bolivia Chile	El Salvador	Bahrain Jordan United Arab Emirates	Algeria Angola Benin Congo Republic	Mauritania Morocco Mozambique Namibia

China's vaccine map: Aid more countries with 1st EU GMP certificate
With a Chinese COVID-19 vaccine receiving the first Good Manufacturing Practice (GMP) certificate issued by Hungarian authorities, Chinese jabs are ...
news.cgtn.com

Figure 1.19: PositiveCH_3



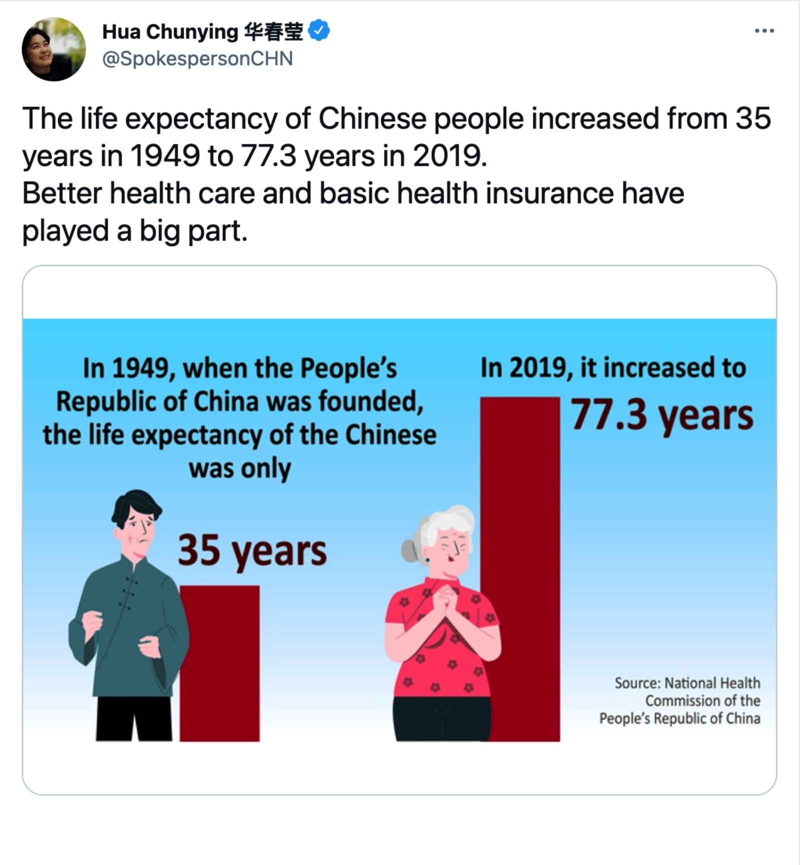
Hua Chunying 华春莹
@SpokespersonCHN
China government official

The life expectancy of Chinese people increased from 35 years in 1949 to 77.3 years in 2019.
Better health care and basic health insurance have played a big part.

In 1949, when the People's Republic of China was founded, the life expectancy of the Chinese was only
35 years
In 2019, it increased to
77.3 years
Source: National Health Commission of the People's Republic of China

Figure 1.20: PositiveCH_3

Figure 1.21: An Example of A Tweet Without the Government Label



Hua Chunying 华春莹
@SpokespersonCHN

The life expectancy of Chinese people increased from 35 years in 1949 to 77.3 years in 2019.
Better health care and basic health insurance have played a big part.

In 1949, when the People's Republic of China was founded, the life expectancy of the Chinese was only
35 years
In 2019, it increased to
77.3 years
Source: National Health Commission of the People's Republic of China

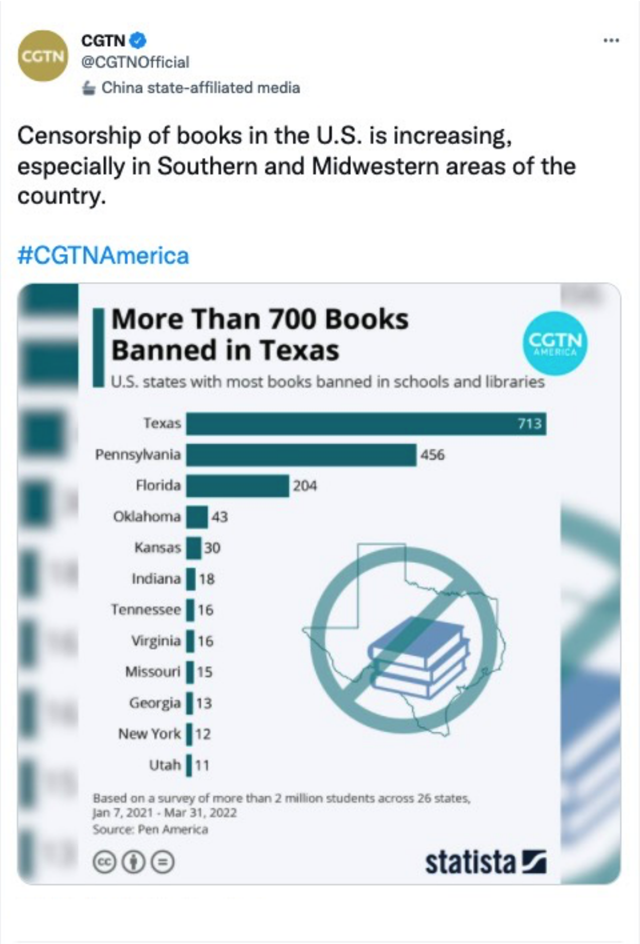
1.6.2 Experiment 2: *Prolific*

Table 1.7: Summary Statistics (*Prolific* Experiment)

Statistic	N	Mean	St. Dev.	Min	Pctl(25)	Pctl(75)	Max
gender	755	0.491	0.500	0	0	1	1
income	755	10.213	4.223	1	7	13	18
race	755	1.482	1.060	1	1	1	5
edu	755	11.291	1.444	4	10	12	14
age	755	3.450	1.620	1	2	5	7
party	755	2.481	1.218	1	1	3	5
ideology	755	2.552	1.107	1	2	3	5
us_role	755	2.678	0.707	1	2	3	4
view_china	755	2.354	0.957	1	2	3	5
china_econ	755	2.442	0.934	1	2	3	5
china_threat	755	3.656	1.099	1	3	4	5
covid_china	755	2.617	1.224	1	2	4	5
covid_us	755	2.417	1.114	1	2	3	5
visit_china	755	2.838	1.465	1	1	4	5
view_system	755	0.879	0.326	0	1	1	1
view_DC	755	1.934	0.586	1	2	2	4
long_run_att	755	3.306	1.190	1	2	4	5
support_att	755	3.638	1.134	1	3	5	5
than_other_att	755	3.589	1.296	1	3	5	5
us_china_relationshi	755	0.334	0.472	0	0	1	1

Treatment Materials

Figure 1.22: NegativeUS_1



CGTN
@CGTNOfficial
China state-affiliated media

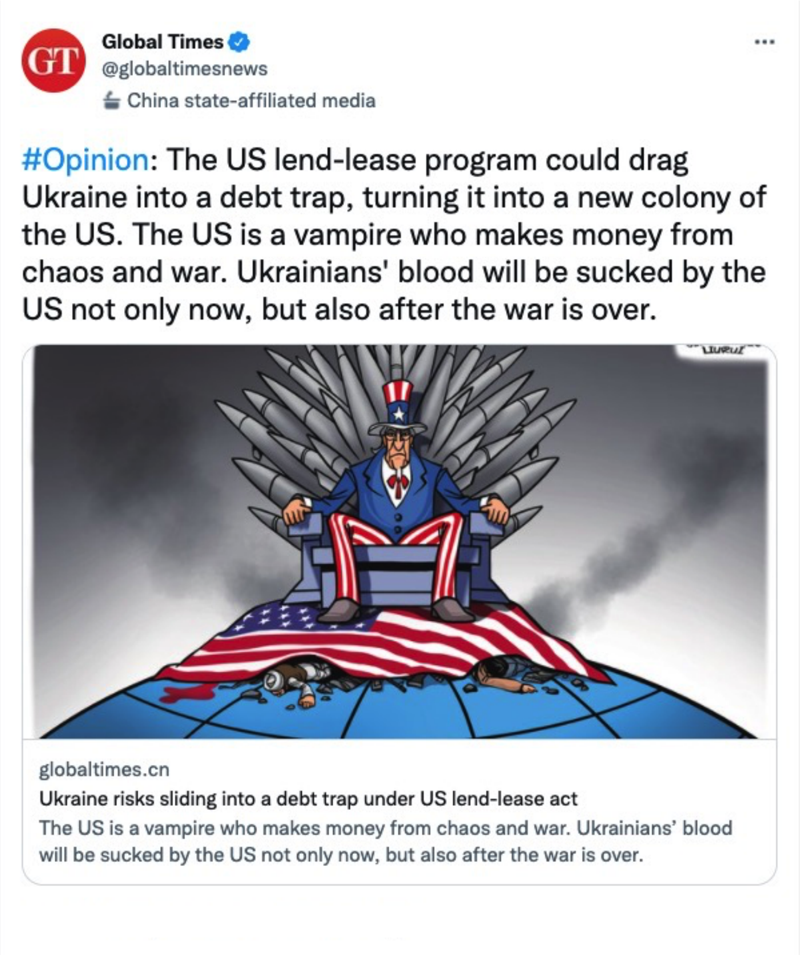
Censorship of books in the U.S. is increasing, especially in Southern and Midwestern areas of the country.

#CGTNAmerica

More Than 700 Books Banned in Texas
U.S. states with most books banned in schools and libraries
CGTN AMERICA
Texas 713
Pennsylvania 456
Florida 204
Oklahoma 43
Kansas 30
Indiana 18
Tennessee 16
Virginia 16
Missouri 15
Georgia 13
New York 12
Utah 11
statista

Based on a survey of more than 2 million students across 26 states,
Jan 7, 2021 - Mar 31, 2022
Source: Pen America

Figure 1.23: NegativeUS_2

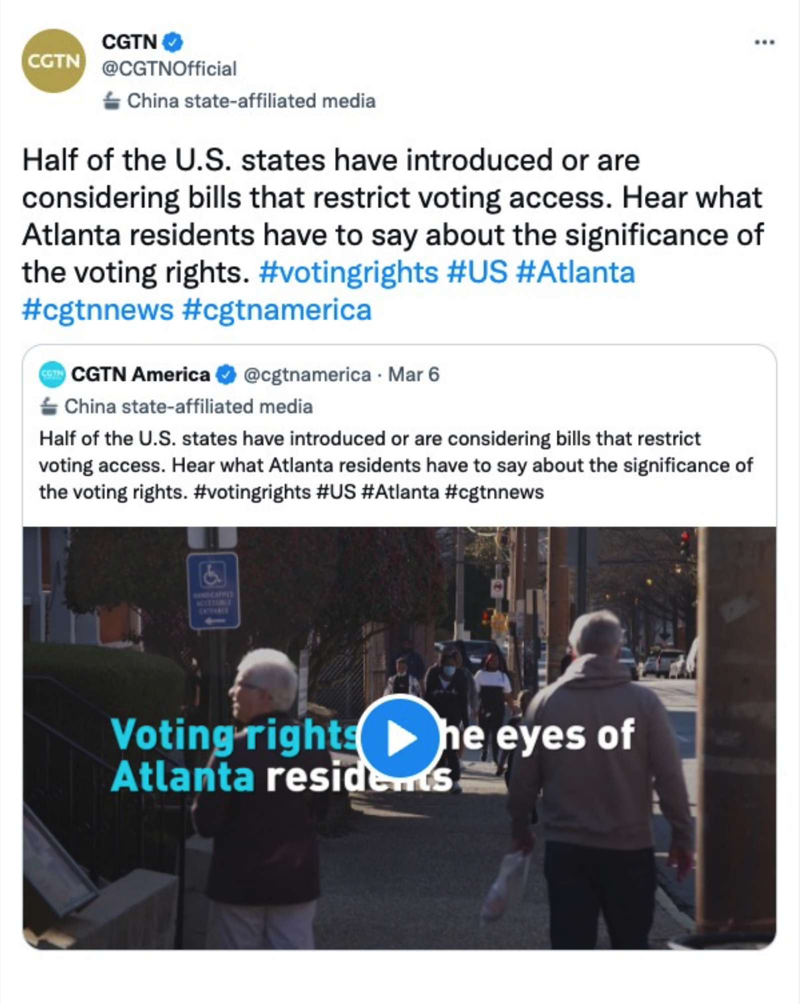


Global Times
@globaltimesnews
China state-affiliated media

#Opinion: The US lend-lease program could drag Ukraine into a debt trap, turning it into a new colony of the US. The US is a vampire who makes money from chaos and war. Ukrainians' blood will be sucked by the US not only now, but also after the war is over.

globaltimes.cn
Ukraine risks sliding into a debt trap under US lend-lease act
The US is a vampire who makes money from chaos and war. Ukrainians' blood will be sucked by the US not only now, but also after the war is over.

Figure 1.24: NegativeUS_3

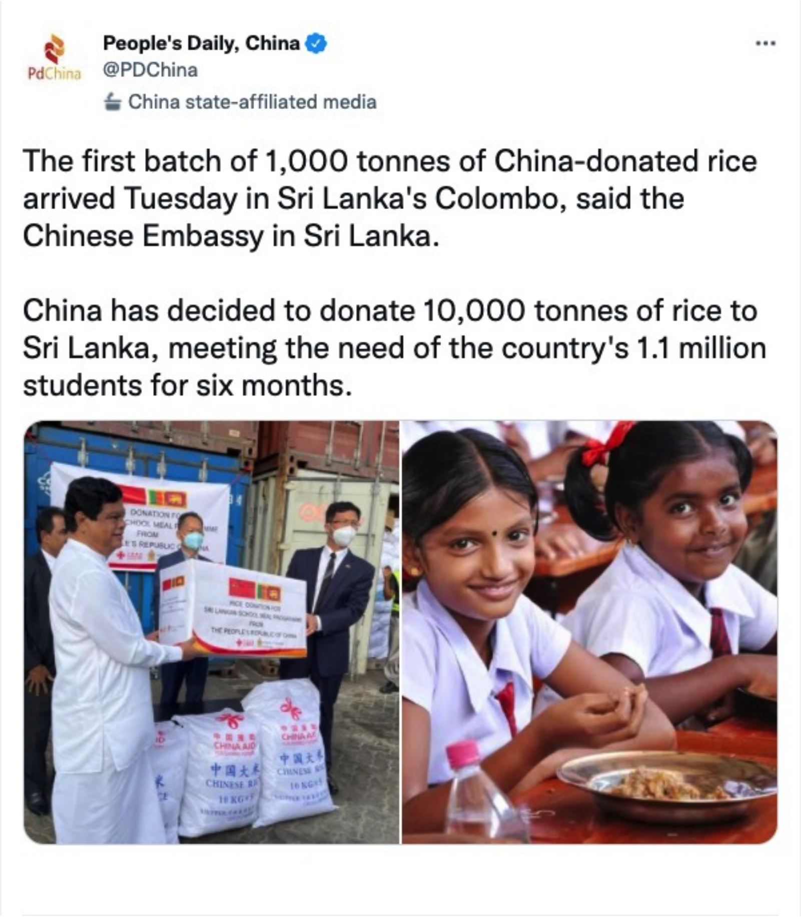


CGTN
@CGTNOfficial
China state-affiliated media

Half of the U.S. states have introduced or are considering bills that restrict voting access. Hear what Atlanta residents have to say about the significance of the voting rights. #votingrights #US #Atlanta #cgtnnews #cgtnamerica

CGTN America @cgtnamerica · Mar 6
China state-affiliated media
Half of the U.S. states have introduced or are considering bills that restrict voting access. Hear what Atlanta residents have to say about the significance of the voting rights. #votingrights #US #Atlanta #cgtnnews

Figure 1.25: PositiveCH_1



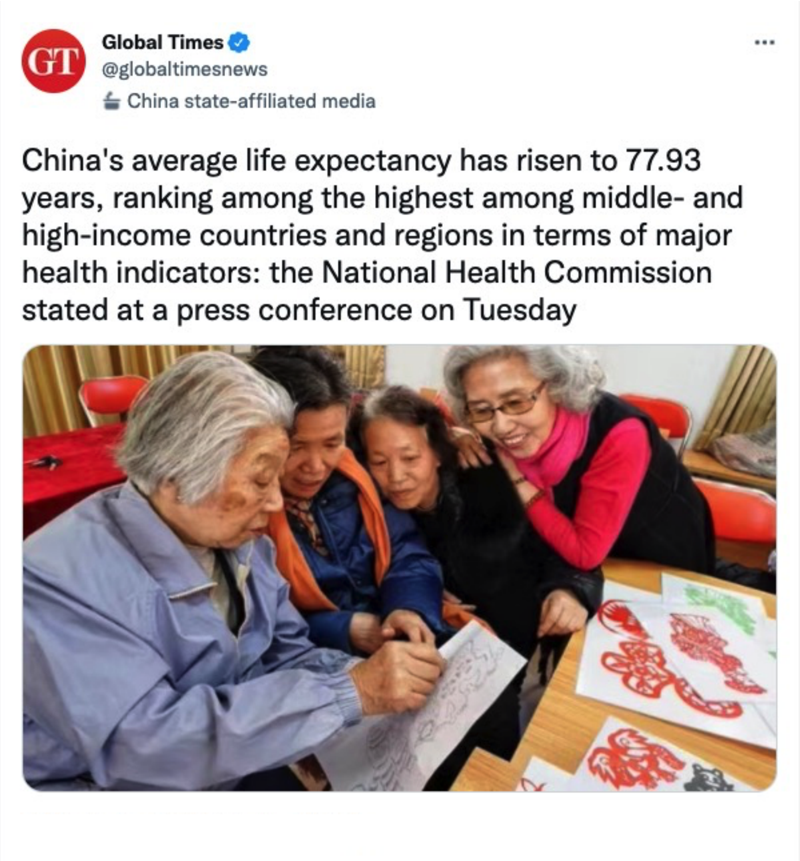
People's Daily, China
@PDChina
China state-affiliated media

The first batch of 1,000 tonnes of China-donated rice arrived Tuesday in Sri Lanka's Colombo, said the Chinese Embassy in Sri Lanka.

China has decided to donate 10,000 tonnes of rice to Sri Lanka, meeting the need of the country's 1.1 million students for six months.

PdChina
CHINA AID
中国大米
CHINESE RICE
10 KG

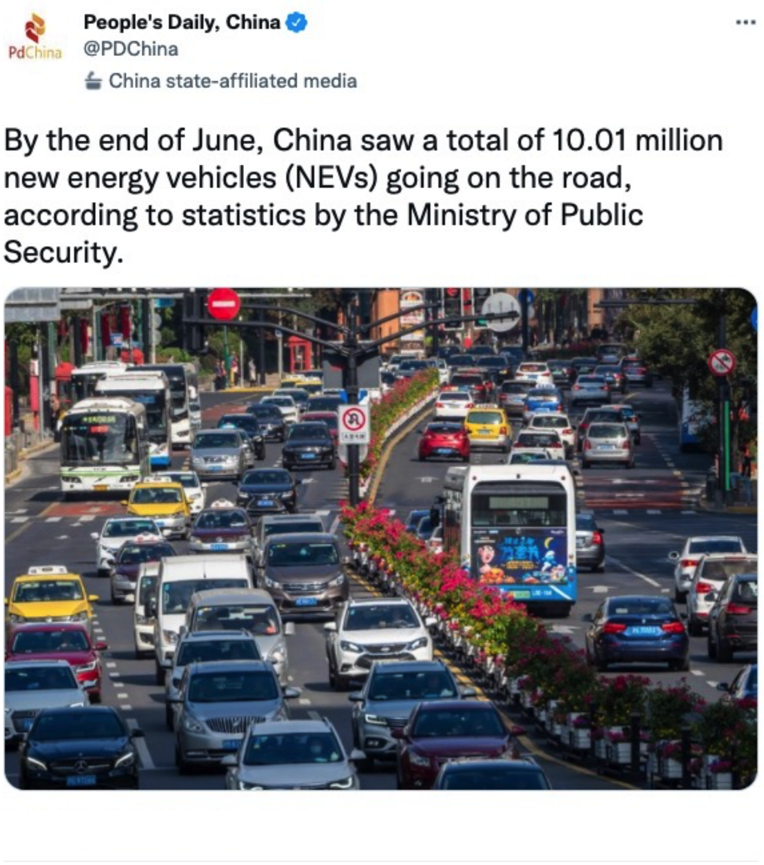
Figure 1.26: PositiveCH_2



Global Times
@globaltimesnews
China state-affiliated media

China's average life expectancy has risen to 77.93 years, ranking among the highest among middle- and high-income countries and regions in terms of major health indicators: the National Health Commission stated at a press conference on Tuesday

Figure 1.27: PositiveCH_3



People's Daily, China
@PDChina
China state-affiliated media

By the end of June, China saw a total of 10.01 million new energy vehicles (NEVs) going on the road, according to statistics by the Ministry of Public Security.

Figure 1.28: Party-based subgroup analysis for China questions

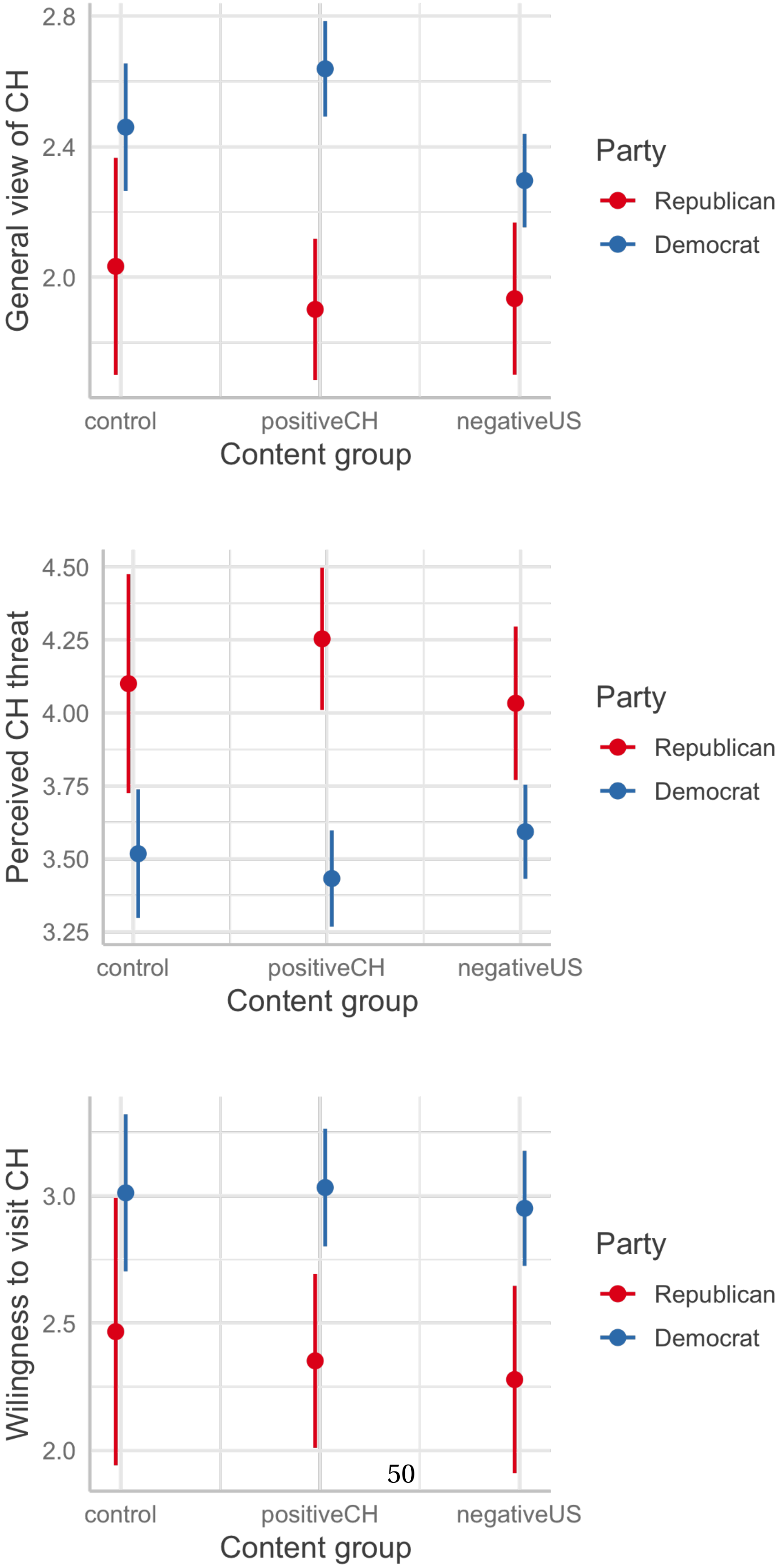
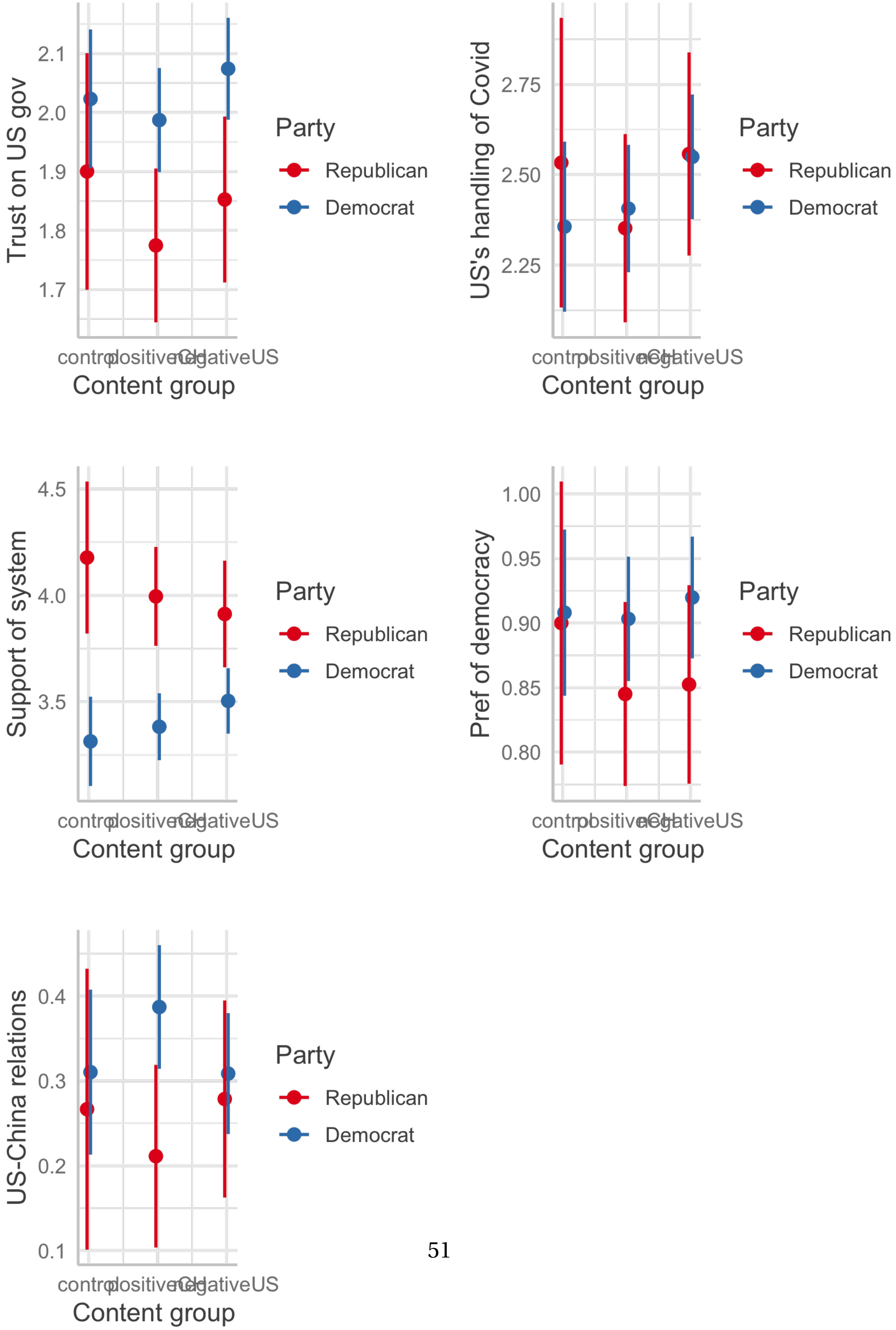


Figure 1.29: Party-based subgroup analysis for US questions



Part II

Do Authoritarian Mega-events Affect International Public Opinion? Evidence from the 2022 Beijing Winter Olympics

Abstract

This paper explores the potential of the 2022 Beijing Winter Olympics to reshape China's international image through public diplomacy efforts. Mega-events like the Olympics offer opportunities for nations to improve their favorability and boost product sales. The paper aims to understand the effects of the Olympics and the underlying mechanism of how newly gained knowledge about China affects foreign public opinion. Specifically, using a two-round panel survey, the paper investigates the effects of the Olympics on foreign perceptions of China and which types of knowledge have the most significant impact on public opinion. Results indicate that the Olympics have limited ability to change public views of China, and in some cases, may have a backfired effect. In other hand, people gained significantly more positive knowledge about China after the Olympics, which positively correlated with increased curiosity about Chinese culture and a stronger desire to foster peaceful relations with China. Overall, the paper provides insights into the actual impact of public diplomacy strategies in the context of mega-events like the Olympics.

2.1 Introduction

Public diplomacy involves a nation's efforts to influence foreign public opinion by leveraging knowledge, culture, and other resources (Nye 1990, 2004, 2008). Mega-events present a prime opportunity for countries to practice public diplomacy and enhance their national image. Mega-events are large-scale events with significant impacts on a nation(Kramareva and Grix 2021, Vij et al. 2019). These events not only attract massive global media attention but also raise the profile of the host country and city(Wang 2020). Successfully hosting a mega-event can improve a nation's favorability and even boost the sales of its products (Nebenzahl and Jaffe 1991).

Beijing hosted the 2022 Winter Olympic Games, providing China an opportunity to reshape its international image. Amid criticism of its aggressive "Wolf Warrior" foreign policy, a large-scale sporting event like the Olympics allows China to portray a more warm, welcoming, and friendly national image. In this paper, I investigate whether and why the 2022 Winter Olympics in Beijing can alter global perceptions of China, particularly when international opinions of the country have generally been unfavorable (Xie and Jin 2021).

Utilizing the 2022 Winter Olympic Games, I contribute to the field by conducting a two-round panel survey that examines the impacts of the entire mega-event. The survey not only evaluates whether the Olympics can influence foreign perceptions of China, but also identifies which type of knowledge — positive knowledge (e.g., China's development and achievements), negative knowledge (controversies surrounding China), general knowledge (e.g., China's culture), or IR knowledge about China—has the most significant effect on foreign public opinion. My findings indicate that the Olympics' ability to alter public views of China is limited, and in certain instances, may even result in a backfired effect, such as increased disapproval of China hosting such a mega-event. In terms of knowledge acquisition about China, the results reveal that people gained significantly more positive knowledge after the Olympics, with no observed changes in the other three knowledge categories. Furthermore, the study demonstrates that gaining more positive knowledge about China is positively associated with various public opinion variables, including heightened curiosity about Chinese culture and a stronger inclination to foster peaceful relations with China.

2.2 The Impacts of Mega-Events

While there has been significant attention on the impacts of mega-events, the research in this area produces mixed results regarding the influence on foreign public opinion about the host country. Some scholars have found that mega-events can enhance a country's national image (Fullerton and Holtzhausen 2012, Gilmore 2002, Gripsrud and Nes 1996, Kim and Morrsion 2005, Lee et al. 2005, Nebenzahl and Jaffe 1991, Ritchie and Smith 1991) and stimulate economic interactions (Eichenauer, Fuchs and Brückner 2021). For instance, the 1988 Olympic Games in Seoul and the 2002 FIFA World Cup improved foreign attitudes toward South Korea (Kim and Morrsion 2005) and even the perception of goods manufactured in South Korea (Gripsrud, Nes and Olsson 2010, Nebenzahl and Jaffe 1991).

Meanwhile, some studies have indicated that mega-events have minimal impact on a nation's image (Auruskeviciene et al. 2010, Gries, Crowson and Sandel 2010, Primiano 2015, Syed 2010). A series of studies examining the effects of the 2008 Summer Olympics in Beijing determined that the event not only had very limited effects on improving favorability among international audiences but also had adverse consequences (Gries, Crowson and Sandel 2010, Primiano 2015, Wang 2009). Based on a longitudinal survey carried out before and after the 2008 Olympic Games, Gries, Crowson and Sandel (2010) discovered that the event heightened Americans' prejudice level towards China. Furthermore, it intensified Americans' anxiety about China as a potential threat.

Why do scholars hold such divergent views regarding the effects of mega-events? One potential explanation could be the disagreement on the appropriate approach for assessing the impacts of these events. For instance, should the evaluation focus on the mega-event itself, the overall public opinion about the host country, or opinions on specific issues? In fact, people tend to have complex attitudes towards foreign countries. As Gries, Crowson and Sandel (2010) points out, satisfaction with the 2008 Olympic Games did not necessarily lead to a favorable opinion of China. Moreover, Primiano (2015) found that while young, educated Taiwanese acknowledged the success of the 2008 Olympic Games, they did not view the Chinese government's response to the events in Tibet in March 2008 as appropriate. Kobierecki and Strożek (2021) emphasized that increased interest in the host country brought about by the mega-event could result from criticism. Furthermore, the impacts of mega-events might be influenced by numerous individual-level factors, as Gries, Crowson and Sandel (2010) discovered that personality plays a crucial role in the effects of the 2008 Olympic Games. Individual characteristics, such as partisanship and pre-existing opinions about China, may also have a significant influence.

Another potential reason is that the impact of a mega-event may hinge on the attention it garners and the new information it introduces. News coverage tends to spotlight the host nation during the mega-event, capturing the attention of international audiences. This attention could be positive, fostering an appreciation for the host country's culture, or negative, heightening awareness of controversies and criticisms surrounding the host nation. The acquisition of various types of knowledge may yield diverse outcomes in terms of the mega-event's effects. While there are several empirical studies on the effects of mega-events, research exploring the mechanisms driving attitude changes remains limited. What kind of attention and information does a mega-event draw, and what are the outcomes that result from it? To determine the effects of a mega-event, it is essential to understand the underlying mechanisms driving these outcomes.

To contribute to the field, I examined the impacts of the 2022 Beijing Winter Olympics on foreign public opinion about China and the underlying mechanisms. Treating the entire mega-event (and its associated news coverage) as the treatment, I conducted a two-round survey immediately before and after the 2022 Beijing Winter Olympics. In addition to investigating shifts in attitudes towards China, I also explored changes in participants' knowledge about the country. This study provides insights into the types of information that influence China's international image by examining the relationship between these two kinds of changes.

2.3 The Beijing Winter Olympics: An Imperative Success

The 2022 Winter Olympics marked China's first time hosting the Winter Olympics and the second time for Beijing to host an Olympics, following the 2008 Summer Olympics. However, unlike the Summer Olympics, the Winter Olympics faced challenges leading up to the event. China was in the midst of large-scale international controversies regarding human rights issues, such as the reeducation camp for minorities in Xinjiang, which was heavily criticized by the international community. At that time, China's confrontational diplomatic policy was labeled as"wolf warrior" diplomacy by Western media due to frequent assertive tweets criticizing Western countries from China's spokesperson, Zhao Lijian, until 2023. The 2022 Winter Olympics Games provided China with an unmissable opportunity to rebuild and enhance its international image amid intense criticism. Furthermore, the Chinese public was overwhelmed with anxiety caused by the COVID-19 pandemic, making the mega-event a great opportunity to lift people's spirits.

China invested a substantial amount of money in hosting the 2022 Winter Olympics, although not as much as the investment in the 2008 Summer Olympics. The country invested $31 billion in constructing sports facilities and the Olympic village where the athletes stayed. While $31 billion may not be considered a huge amount compared to other countries' budgeting for operating the Olympics, it only represents the direct cost. The indirect costs, such as constructing highways and rebuilding airports to facilitate transportation between the competition venues and Olympic villages, amounted to more than $50 billion[2]. This massive investment demonstrated China's determination to host a successful Olympic Games. The official speeches of China's leaders also reflect this determination. During his visit to Beijing at the beginning of the 2022 new year to inspect the preparations for the 2022 Winter Olympics, Xi Jinping said, "Hosting a successful Beijing Winter Olympics and Paralympics not only...but also showcases the country's commitment to promoting a community with a shared future for mankind, a positive and open image, and enhances understanding and awareness of China among people worldwide".[3]

The 2022 Beijing Winter Olympics represents a significant investment of resources and effort by China to improve its international image. As such, it presents a valuable opportunity for researchers to study the effectiveness of public diplomacy in shaping national perceptions.

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[2] https://cn.nytimes.com/business/20220215/olympics-china-economics/

[3] https://china.huanqiu.com/article/470CRxPdDnO

2.4 Hypotheses

The objective of this paper is to address the unresolved issue in the field of mega-events and public diplomacy. Considering the mixed results from existing research, my expectations concerning the impacts of mega-events and the opening ceremony remain largely agnostic. Three competing hypotheses emerge for both the two-round panel survey and the survey experiment, respectively.

Hypothesis 1a: The Beijing Winer Olympics can improve China's national image.

Hypothesis 1b: The Beijing Winer Olympics has little or even negative effects on China's national image.

Hypothesis 2: The shifts in knowledge about China before and after the Beijing Winter Olympics are associated with the changes in opinions regarding China.

2.5 Research Design

2.5.1 Overview

Figure 2.1: Google search trend for the term "Olympics"

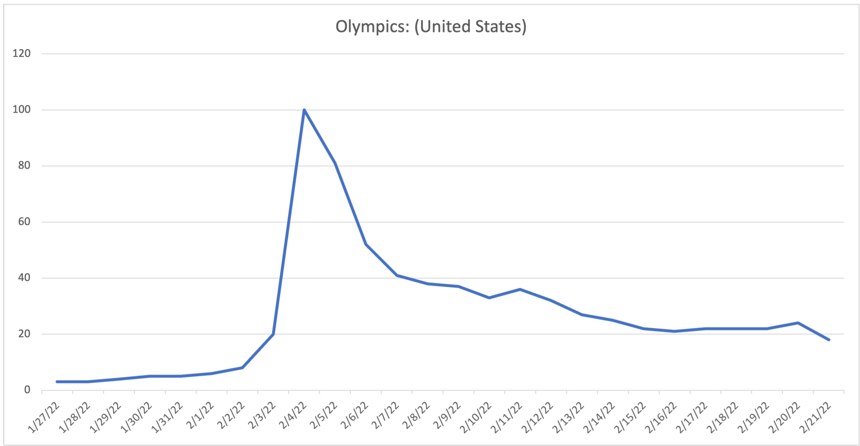
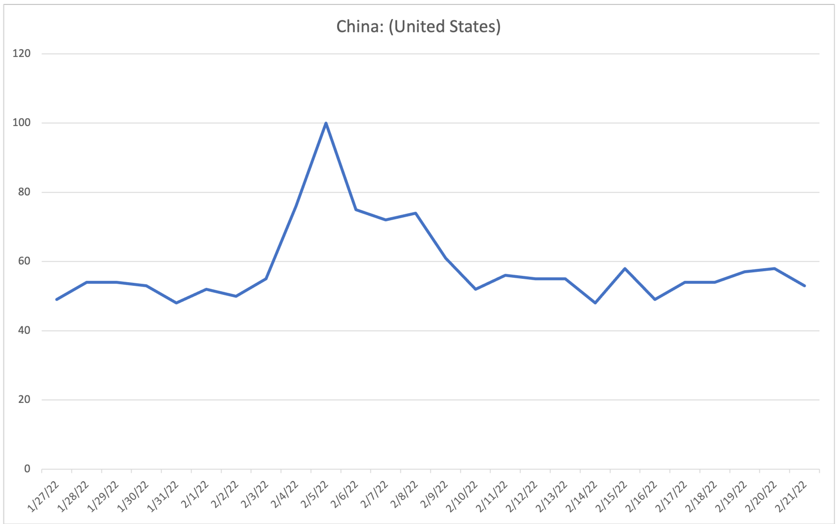


Figure 2.2: Google search trend for the term “China"



I carried out a two-stage panel survey before and after the 2022 Winter Olympic Games, which took place from February 4th to February 20th. The baseline survey was distributed on January 27th, four days before the Olympics began, while the follow-up survey started on February 21st, a day after the Games concluded. Figure 2.1 and Figure 2.2 display the Google search trend for the terms “Olympics" and “China", respectively. The trend analysis reveals that the there was no spike in interest in China or the Olympics until the Olympics started. As a result, it is less probable that participants’ baseline survey responses will be influenced by knowledge acquired prior to the start of the Olympics, given that they may not have a strong interest in focusing on China.

Table 2.1: Sample Demographic Characteristics

Statistic	N	Mean	St. Dev.	Min	Pctl(25)	Pctl(75)	Max
Gender	2,067	0.473	0.499	0	0	1	1
Income	2,067	10.033	3.977	1	7	13	18
Race	2,067	1.604	1.301	1	1	1	6
Edu	2,067	11.366	1.379	4	10	12	14
Age	2,067	42.136	13.075	18	32	51	84
Party	2,067	2.623	1.217	1	2	3	5
Ideology	2,067	2.687	1.198	1	2	4	5

In the first stage, 3000 participants were recruited, and 2319 of them returned for the second stage, resulting in an attrition rate of 29.4%. Following data cleaning, there were 2272 participants included in the sample. The conflict between Russia and Ukraine started on February 24th, 2022. To reduce the influence of the conflict on the study, only individuals who finished the second phase before the war began were analyzed. The remaining sample size was 2067 participants. Demographic statistics can be found in Table 2.1. It is important to note that the second-stage data collection took five days to complete. The balance check conducted indicated that removing participants who completed the second-round survey after the outbreak of the war would not significantly affect the demographic statistics, as they are similar. The balance check table comparing the demographic statistics can be found in the appendix.

In repeated surveys, a major concern is the violation of the independent measurements assumption, as participants may recall their responses from the first survey, thereby potentially undermining the validity of subsequent surveys (Alwin 2007). Schwarz, Revilla and Weber (2020) demonstrated the impact of memory effects on the validity of repeated survey measurements, but their assessment focused on relatively short time intervals. Their findings revealed that 40% of respondents could not recall their previous answers after 20 minutes. Consequently, it can be reasonably assumed that participants' ability to remember would significantly decline over an extended period, such as two weeks. The implementation of several adjustments, including question order and time intervals, can help mitigate memory effects (Scherpenzeel and Saris 1993). To minimize memory effects to the greatest extent possible, I randomized the sequence of questions in both survey rounds and expanded the questionnaires to increase the challenge of memorization. Each survey contained 52 questions.

The survey proceeded as follows. During the initial survey round, participants were first directed to a consent form and a citizenship screener. Next, they were asked a series of questions regarding their attitudes towards China, such as their general opinions and perceived threat from China. Afterward, participants were required to respond to an extensive set of questions probing their knowledge about China, encompassing various aspects from domestic political news to common knowledge. To prevent priming effects, the knowledge-based questions were positioned after the attitude-related questions. Lastly, participants were asked to provide demographic information.

During the second-round survey, which occurred immediately after the Winter Olympics Games, participants were once again asked about their views on China and knowledge about China. In addition, they were required to respond to a series of questions related to their Olympic experience, such as whether they had access to the games and if they watched them. To prevent priming effects, knowledge-based questions were positioned at the end of the survey.

2.5.2 Variables

I have a rich set of variables assessing participants' attitudes towards China. Questions included their general opinion of China, the perceived impact of China's economic expansion on the US economy, the perceived threat from China, an evaluation of China's handling of Covid-19, their willingness to visit China in the future, their inclination to purchase products made in China, and their interest in Chinese culture. Additionally, participants were asked about China's role in the international community, such as their evaluation of China's contribution to global peace, China's respect to personal freedom, and the perceived importance of the US-China relationship. They were also inquired about preference for adopting a more conciliatory stance towards US-China relations. Finally, participants were asked whether they agreed with a statement suggesting that China should not have been awarded the Olympic Games.

This study aims to investigate whether the Winter Olympics can enhance various types of knowledge about China. Consequently, participants were presented with a series of questions designed to measure their understanding of China. Multiple-choice questions were provided, with one correct answer (coded as 1) and four incorrect answers (coded as 0). Four categories of knowledge questions were included: Negative knowledge, positive knowledge, general knowledge, and international relations (IR) related knowledge. Negative knowledge questions focused on China's domestic political news, which typically have a negative connotation, such as the location of reeducation camps that China has been accused of operating. Positive knowledge questions dealt with news about Chinese society, including improvements in Beijing's air quality and China's overall renewable energy generation capacity. General knowledge questions covered neutral information, such as the duration of China's recorded history and the color of its national flag. Lastly, IR knowledge questions assessed participants' familiarity with China's international relations, including the 2020 border disputes with India and the US government's sanctions on Huawei. Detailed information about these questions can be found in appendix.

It should be noted that the survey encompasses a wide range of questions. To simplify the analysis, I utilized the Item Response Theory (IRT) model to generate latent variables for some of the variables. The knowledge questions aim to measure participants' sophistication level across four knowledge categories. Consequently, I developed four aggregate variables corresponding to each question type: Negative knowledge, positive knowledge, general knowledge, and IR knowledge. Similarly, I constructed aggregate variables *interest in China* using participants' willingness to visit China and interest in Chinese culture, as they both show a general interest and curiosity about China and Chinese culture. I also aggregated the confidence of China contributing to the global peace and the level of agreement with the statement “China respects human rights" into *confidence in China*, because the two sub-variables both tap participants' confidence on China following the international norms. Finally, I created *economic attitude* using perceived effects of China's economic expansion and willingness to buy product in China, since the nature of the two questions are about participants' willingness to engage with China economically.

2.6 Results

2.6.1 The Changes in Knowledge and The Changes in Public Opinion

Figure 2.3: Changes in public opinion about China

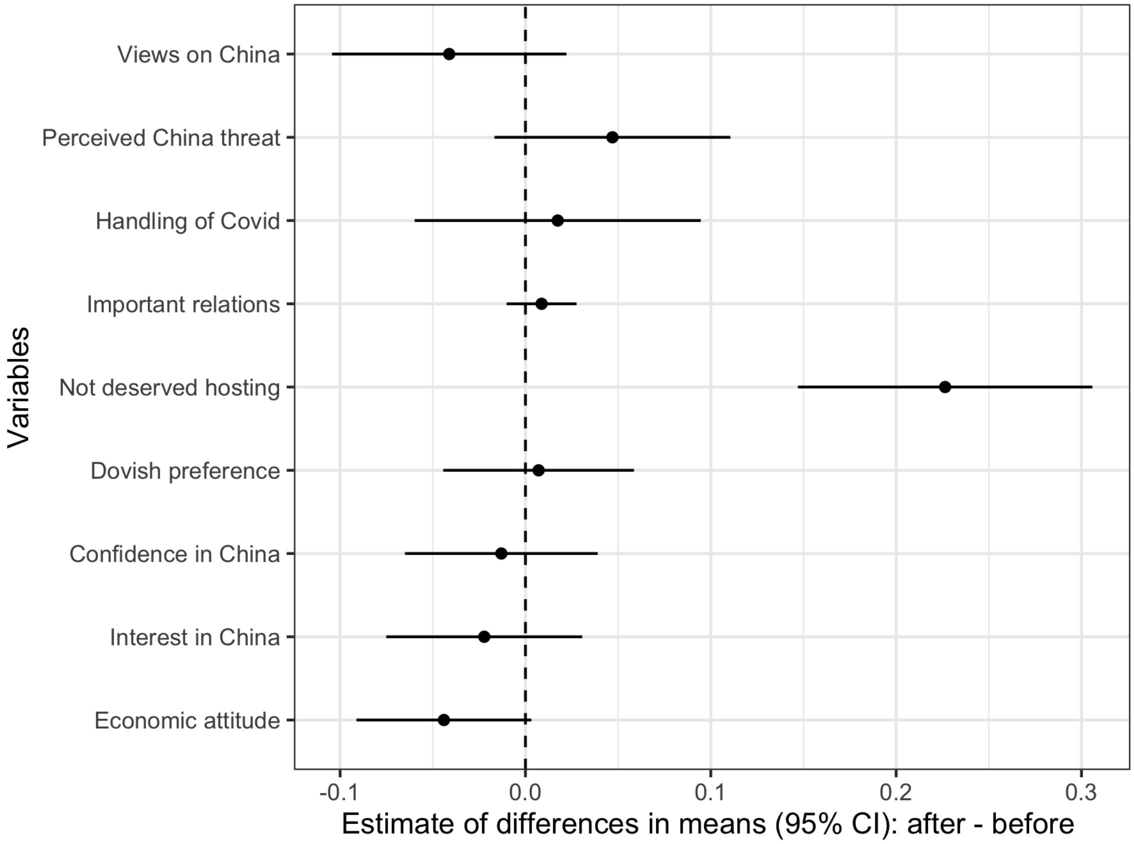
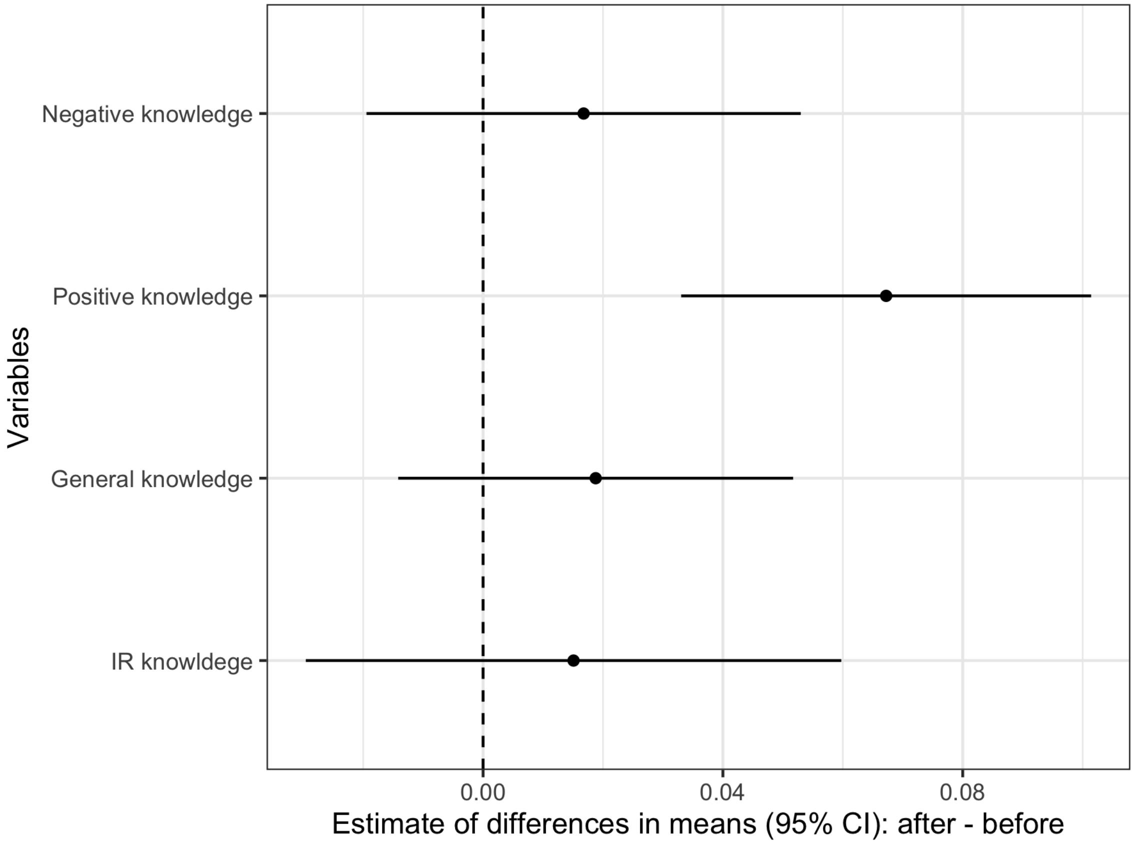


Figure 2.4: Changes in knowledge about China



To investigate the first hypothesis regarding the impact of the Olympics on China's national image, I analyzed participants' views on China before and after the Beijing Winter Olympic Games. Figure 2.3 displays the shifts in perceptions towards China following the event. The findings reveal that overall, public opinion on China remained constant across the two stages. However, in specific areas, such as agreement on China's worthiness to host the Olympics and general attitude on engaging with China econnomically, participants' opinions changed notably. Post-Winter Olympics, a significant increase in respondents disapproved of China hosting the mega-event. Concerning general economic attitude, although the effect is only significant at the 0.1 level, it suggests a downward trend in support for China's economic growth after the Olympics.

In general, Figure 2.3 shows that for most topics, participants' views of China remained unchanged after the Olympics. However, what about the changes in knowledge? Figure 2.4 demonstrates that participants gained significantly more positive knowledge in the two weeks following the event. Their average knowledge about China in other areas also increased, albeit not standpoint. To some extent, this indicates that China achieved its goal of hosting the Olympics, as mega-events, as a public diplomacy strategy, are intended to have such effects. This may be attributed to news coverage highlighting China's accomplishments during the two weeks. While positive knowledge may not directly result in a favorable opinion, it is still beneficial in presenting China's narrative from a positive standpoint.

Figure 2.5: The effects of the changes in knowledge about negative knowledge on public opinion about China

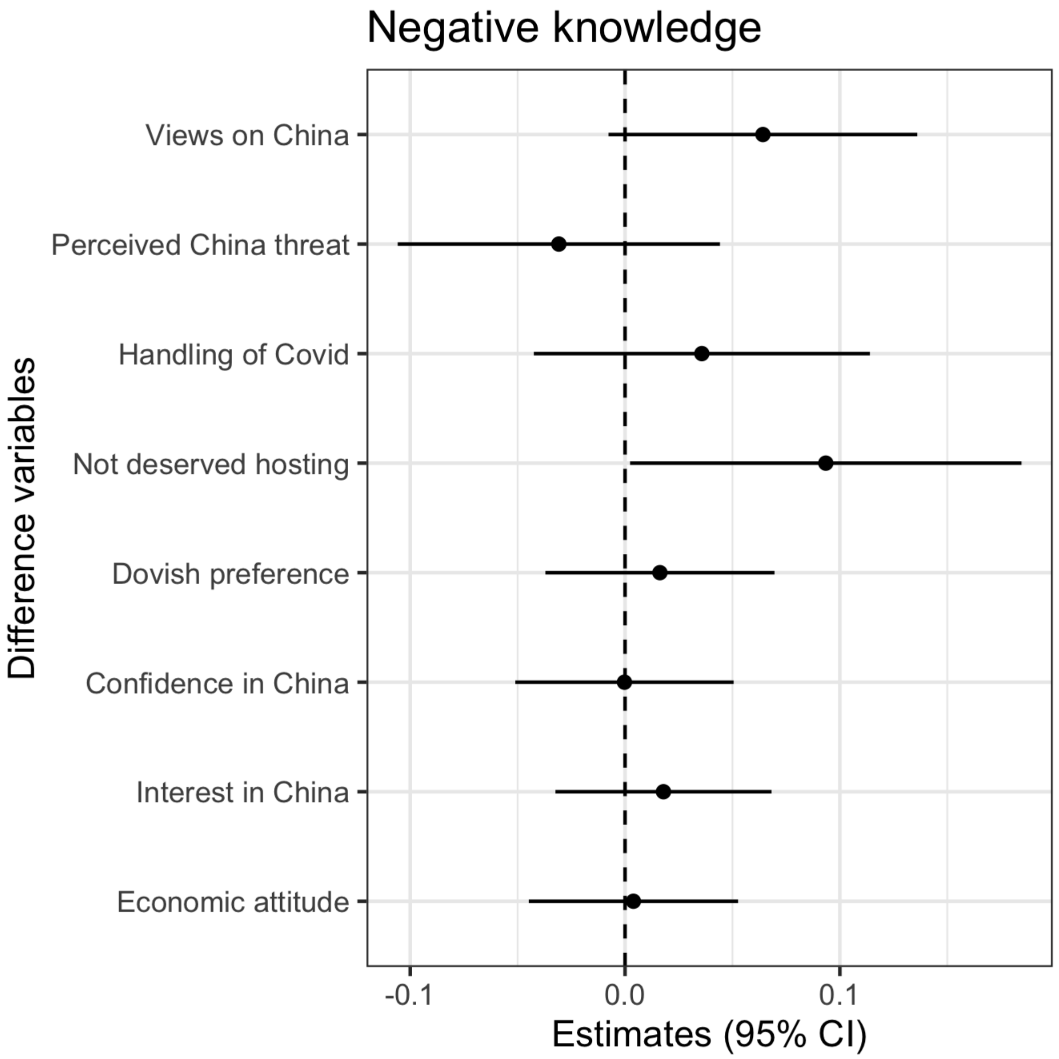
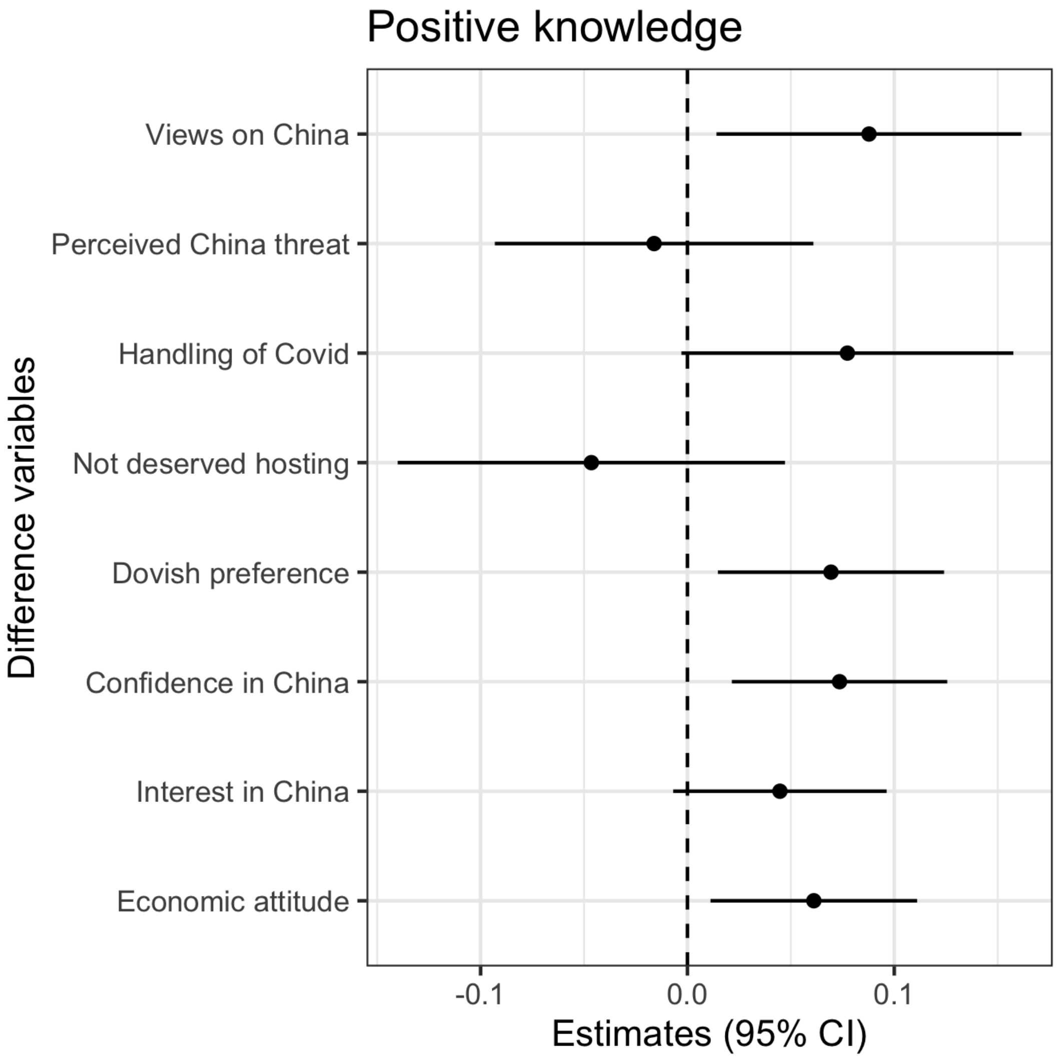


Figure 2.6: The effects of the changes in positive knowledge on public opinion about China



To examine the second hypothesis, focusing on the relationship between changes in knowledge about China and public opinion on China, I calculated the differences in attitude and knowledge variables before and after the Winter Olympics. Subsequently, I utilized a linear regression model to explore the connection between changes in perceptions of China and changes in knowledge about China. Figures 2.5 to 2.8 illustrate the impact of these knowledge shifts on attitude changes towards China. Figure 2.5 reveals that a rise in negative knowledge about China is significantly and positively correlated with the growing belief that China does not deserve to host the Olympics, while no influence is evident in the other dependent variables.

Similar to Figure 2.5, Figure 2.6 displays the outcomes of the least squares regression analysis. The findings suggest that positive knowledge about China can significantly influence participants' opinions on various subjects related to China. For instance, an increase in positive knowledge is positively associated with the change of their overall perception of China. This pattern is also evident in specific topics, such as preferences for peaceful Sino-US relations, confidence in China, and economic sentiment. In other words, enhanced positive knowledge may potentially convince individuals to favor harmonious Sino-US relations. As knowledge changes, China may receive increased international recognition in global affairs and garner more backing for its economic growth. The impact of positive knowledge on other variables, like assessments of Covid-19 and general interest in China, is not significant at the 0.05 level but is significant at the 0.1 level, suggesting a trend in the influence of positive knowledge.

Figure 2.7: The effects of the changes in general knowledge about China on public opinion about China

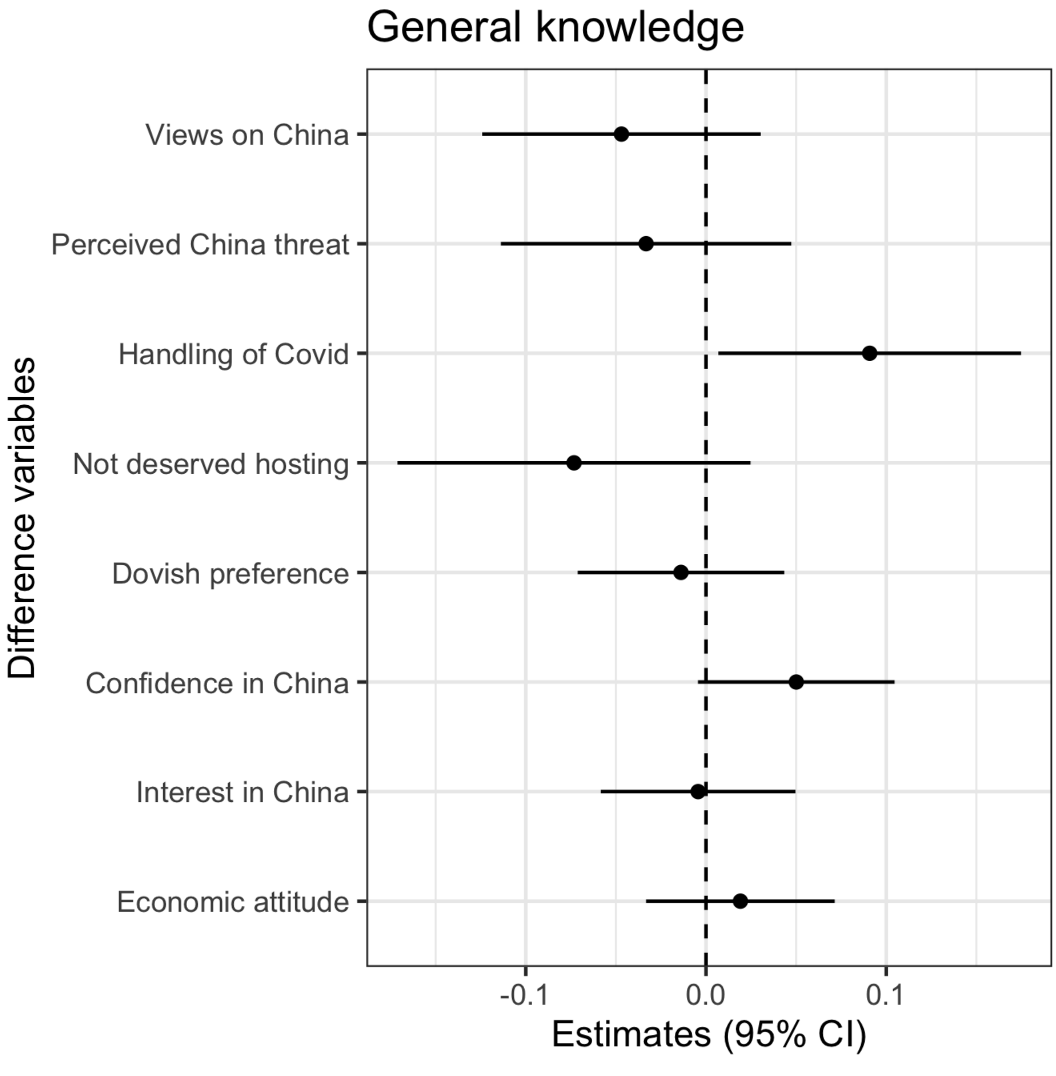
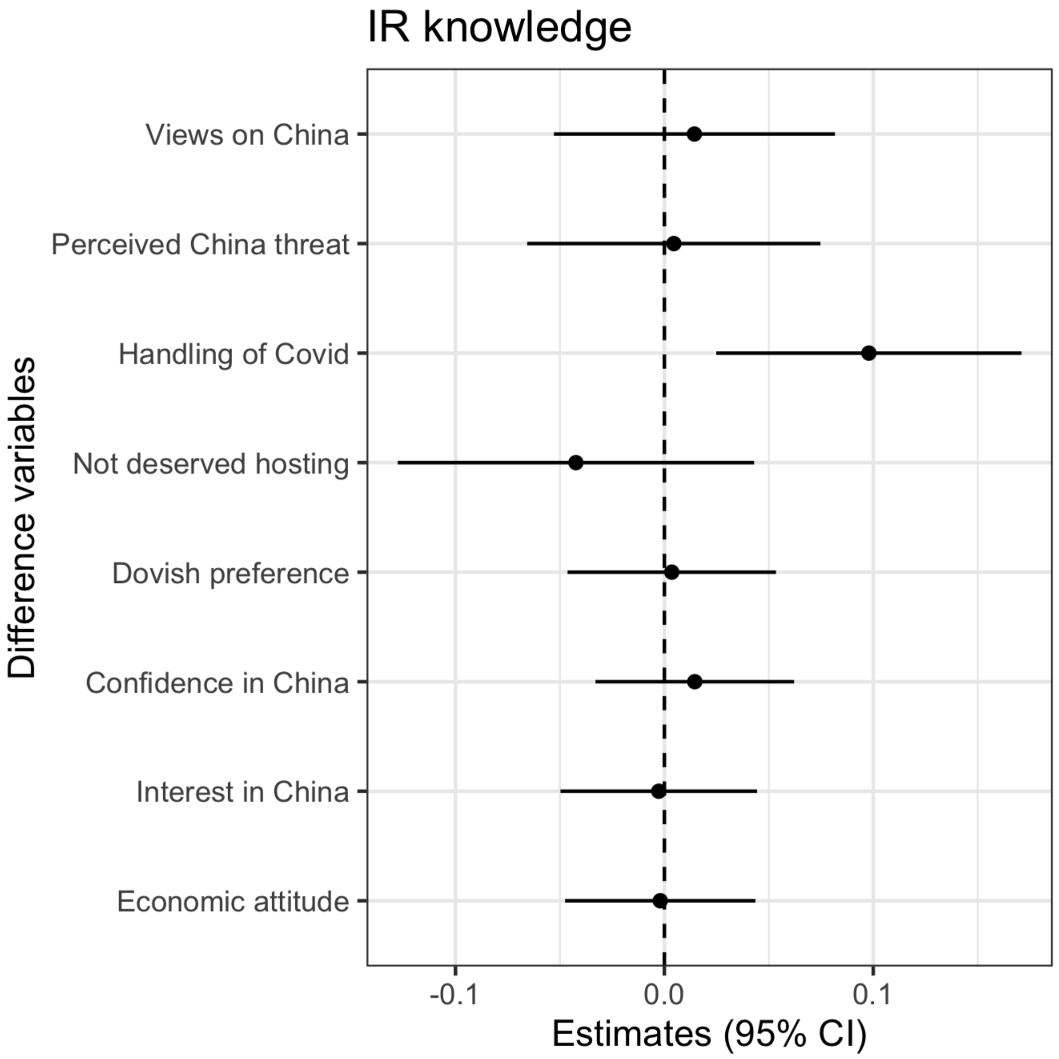


Figure 2.8: The effects of the changes in knowledge about IR on public opinion about China



Figures 2.7 and 2.8 present the findings regarding the effects of acquiring more general knowledge and IR knowledge about China. In Figures 2.7, the results indicate a positive correlation between enhanced general knowledge about China and improved evaluations of China's handling of Covid-19. This suggests that increased general familiarity with China may positively impact its reputation in specific areas, even if they appear unrelated. Regarding other variables, the findings also reveal that increased general knowledge may contribute to confidence in China's adherence to international norms. Figure 2.8 shows that the rise in IR knowledge is positively linked to better evaluations of China's management of Covid-19. One possible explanation is that individuals who are more informed about international news related to China are also more likely to be exposed to China's accomplishments in addressing Covid-19. However, this increase in IR knowledge does not influence other attitudinal variables.

Overall, the findings do not support the first hypothesis, as there are no significant changes in most attitudinal variables between the two stages, indicating that the Beijing Winter Olympics did not bolster China's national image. Conversely, the results revealed some unintended consequences, as a greater number of people felt China was unworthy of hosting the mega-event. As for the second hypothesis, which concerns the relationship between changes in knowledge about China and changes in public opinion, that is corroborated by evidence. The results suggest that certain types of knowledge can influence changes in opinions about China. After the Olympics, there was a significant increase in participants' positive knowledge, which was positively associated to various public opinion variables in later analysis.

2.6.2 Who Gained Positive and Negative Knowledge?

Table 2.2: Balance Check for Positive and Negative Knowledge Gainers

	Positive	Negative	SD_diff	SD_diff (pooled)	P-value
Gender	0.44	0.46	-2.15	-2.15	0.66
Income	9.94	10.09	-3.72	-3.69	0.45
Race	1.58	1.59	-0.65	-0.65	0.89
Edu	11.35	11.42	-5.43	-5.40	0.27
Age	42.56	42.60	-0.27	-0.27	0.96
Party	2.60	2.58	1.82	1.82	0.71
Ideology	2.66	2.69	-2.15	-2.16	0.66

Table 2.3: Balance Check for Positive and Negative Knowledge Gainers (Both Gainers Exluced)

	Positive	Negative	SD_diff	SD_diff(pooled)	P-value
Gender	0.44	0.46	-4.02	-4.01	0.54
Income	9.88	10.15	-6.73	-6.66	0.31
Race	1.60	1.62	-1.61	-1.58	0.81
Edu	11.29	11.42	-9.47	-9.39	0.15
Age	42.02	41.96	0.45	0.45	0.95
Party	2.65	2.62	2.53	2.53	0.70
Ideology	2.68	2.73	-4.49	-4.51	0.49

The above sections have shown that during the two weeks of the Olympics, some individuals gained positive knowledge about China, while others gained negative knowledge, and this positive knowledge contributed to changes in perceptions of China. It is natural to wonder about the demographic characteristics of those who gained positive versus negative knowledge and whether these are two distinct groups. Moreover, it is worth examining whether demographic differences might influence knowledge acquisition.

To answer these questions, I examined subgroups based on the different types of knowledge gained. Table 2.2 presents the means of the demographic variables and t-test values for the two groups of American participants who gained positive and negative knowledge, with 898 and 800 participants, respectively. The results indicate that the two groups are similar, with slightly more females than males, income levels around $50,000, and similar racial distributions, with 692 and 615 white participants in the positive and negative knowledge groups, respectively, and the rest being minorities. The average degree held by participants in both groups is an associate degree, and the average age is approximately 42. In terms of partisanship and ideology, participants in both groups lean towards the Democratic Party and liberal ideology. One may question the potential overlap since a participant could gain both positive and negative knowledge simultaneously. To address this, I excluded participants who gained both types of knowledge, and the demographics for this sample are shown in Table 2.3, which is similar to Table 2.2. Thus, it is unlikely that different demographics are related to different knowledge acquisition. Instead, other factors, such as news preferences and interests, may play a role.

2.6.3 Placebo Test - A Difference-in-Differences Analysis Approach

In previous sections, the findings indicate that shifts in positive knowledge about China are positively linked to changes in public opinion regarding China. The underlying assumption is that it is the changes in knowledge that influence perceptions, while the Olympics itself do not provide specific new information about China. In other words, it is more likely that the news coverage triggered by the mega-event, rather than watching the Olympics directly, contributed to the increases in knowledge and changes in attitudes. To evaluate this assumption, I employ difference-in-differences (DiD) to determine whether viewing the Winter Olympics has an impact on knowledge levels and public opinion.

Ideally, we would like to control participants' behaviors by randomly assigning them to either a “watch the Olympics" or a “not watch the Olympics" group. However, in reality, the decision to watch the Olympics is endogenous, as we cannot dictate participants' TV viewing habits. To overcome this issue, I identified an exogenous factor: TV ownership. NBC holds the U.S. broadcasting rights for both Winter and Summer Olympic Games until 2032. Since NBC is a cable channel, anyone who owns a TV should have access to watch the live broadcast of the Beijing Winter Olympics. Typically, people wouldn't purchase a TV solely for watching the Olympics, making TV ownership exogenous to both attitudinal and knowledge variables. While individuals might not intentionally watch the Olympics, they certainly have ample opportunities to be exposed to related content during the two weeks of the Olympic Games.

The basic DiD is commonly used to study the effect of a treatment in situations where observational data contain two time periods and two groups, and only one group is exposed to the treatment in the second period **?**. In this study, I have a treatment group consisting of participants who own TVs and a control group comprising participants who do not own TVs. By employing this method, the impact of the Beijing Winter Olympics on the treatment group can be discerned by comparing the changes in attitudinal variables after the Games between the treatment and control groups. Specifically, I use a regression model, as outlined below, to represent the two time periods and groups.

$$y = \beta_0 + \beta_1 Time + \beta_2 Owning\_TV + \beta_3 Time \times Access + u$$

The dependent variables used in the regression consist of a series of variables capturing attitudes toward China or knowledge about China before and after the Winter Olympic Games. $Time$ is a dummy variable denoting the pre and post-Olympic period, while $Owning_{TV}$ represents the treatment variable, indicating whether a participant owns a TV or not. The coefficient of interest, β_3, is the difference-in-differences estimate, signifying the differences in attitudinal changes over time. To maintain consistency regarding TV ownership across the periods, I excluded participants who did not own a TV in the first round but owned one in the second round. A total of 1,791 samples were used for the DiD analysis, with 896 not owning a TV and 895 owning one. The demographic statistics of the sample can be found in the appendix.

Figure 2.9 presents the DiD estimates for all variables about knowledge about China. The results indicate that exposure to the live broadcast of the Winter Olympic Games does not have any impact on participants' knowledge of China, irrespective of the type of knowledge. In other words, the influence of the Olympic Games, if any, may not be dependent on exposure to the event. Similarly, Figure 2.10 displays the results for public opinion variables, suggesting that exposure to the Olympics does not affect views about China across the two stages.

Figure 2.9: Difference-in-differences estimates for knowledge toward China

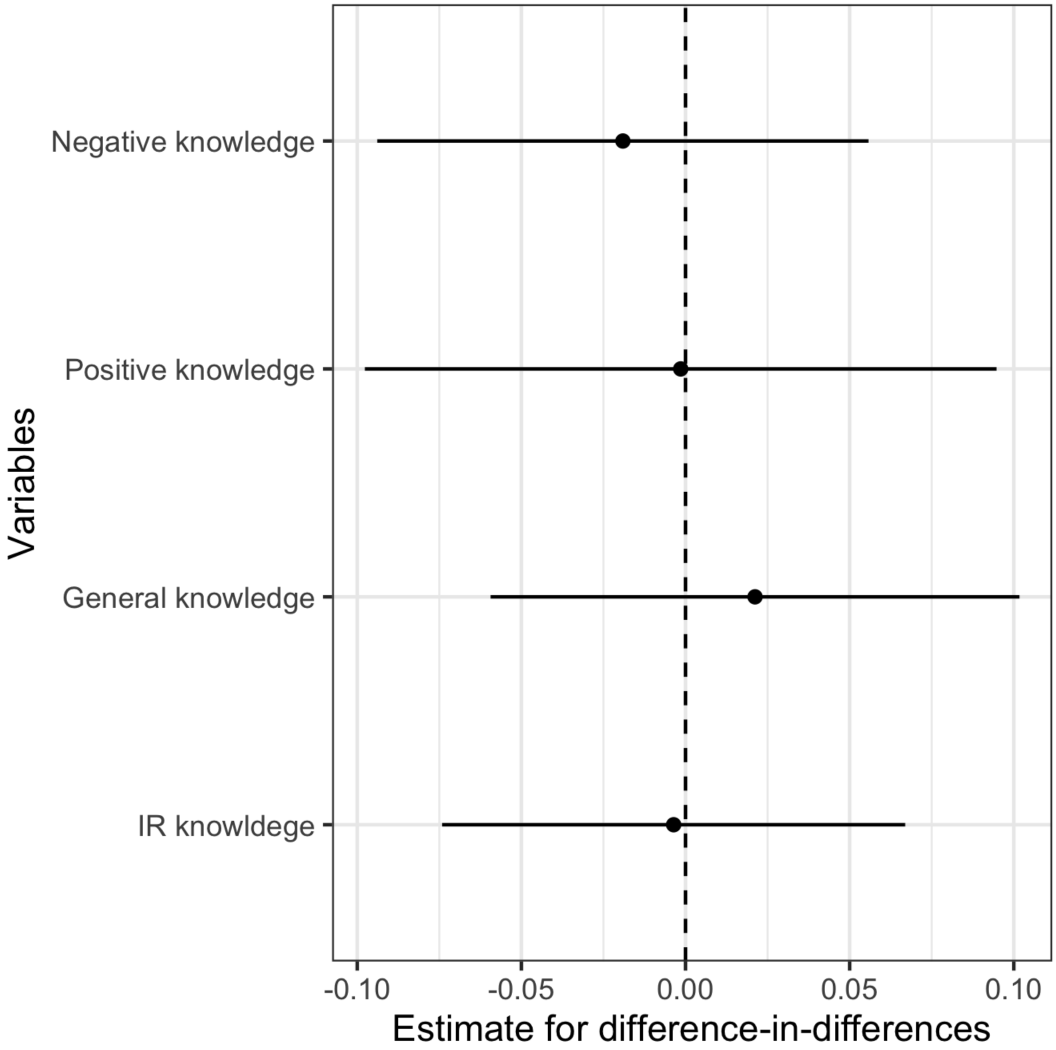
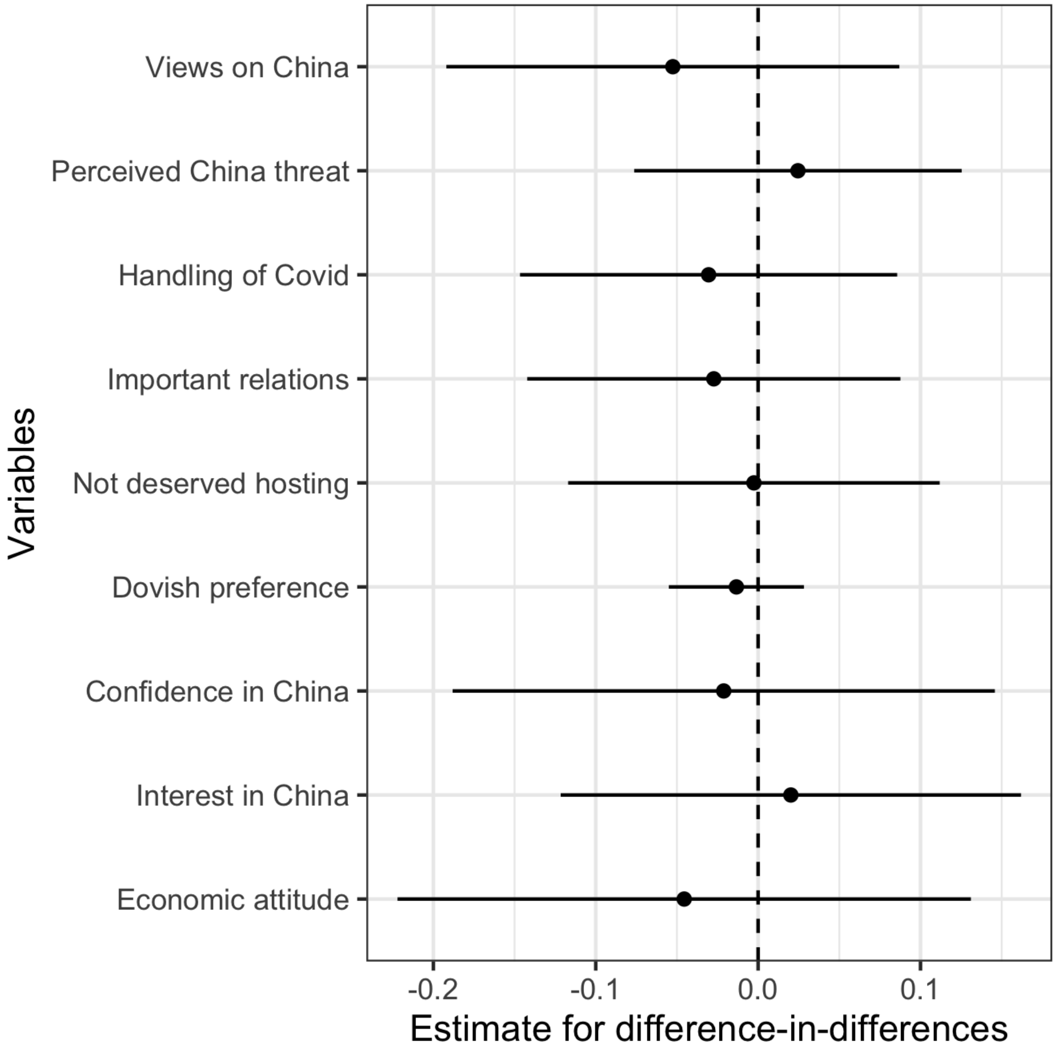


Figure 2.10: Difference-in-differences estimates for attitudes toward China



Some individuals may be concerned that people might have alternative means of accessing live Olympic coverage besides owning a TV, such as online streaming. To address this concern, I conducted a DiD analysis using individuals who own a TV or have online streaming access to the Olympics as the treatment group, and those who do not as the control group. People with access to the five streaming services, NBC, Peacock, YouTube TV, Fubo TV, and Hulu Plus Live TV, can also watch the live broadcast of the Games. In the aforementioned regression model, I replaced $Owning_TV$ with $Access$. $Access$ is 1 if a participant has a TV or any of the mentioned streaming services, and 0 otherwise. The results are similar to those in Figure 2.9 and Figure 2.10: exposure to the Olympics does not significantly alter the knowledge level or opinion about China. While I do not present these results here, they can be found in appendix (Figure 2.13 and Figure 2.14). It is worth noting that subscribing to streaming services is not a strictly exogenous factor, as people can easily subscribe and unsubscribe during the two Olympic weeks, and their behavior may be a result of their interest in the Olympics.

2.7 Discussion

In general, the results show that *Hypothesis 1b* is confirmed, indicating that the Olympics have minimal impact on swaying public opinion about China. In fact, it may have a counterproductive effect, such as increased disapproval of China hosting the mega-event. Regarding the change in knowledge about China, the findings suggest that people acquired significantly more positive knowledge about China after the Olympics, while no changes were observed in the other three types of knowledge. *Hypothesis 2* is supported by the analysis of the relationships between shifts in knowledge and attitudinal variables. The results reveal that gaining more positive knowledge about China is positively associated with various public opinion variables, such as increased interest in Chinese culture and a greater willingness to build peaceful relations with China. The placebo test demonstrates that watching the Olympics themselves does not affect knowledge levels or public opinion about China. This suggests that it is likely the news coverage surrounding the Olympics, rather than the event itself, that leads to these changes.

This study contributes to the field by not only analyzing shifts in public opinion but also investigating changes in knowledge before and after the Olympics. While existing research focuses on the effects of mega-events themselves, such as general attitude changes or shifts in specific issues, this paper emphasizes the potential types of information that may lead to opinion changes and examines how acquired knowledge relates to these shifts in public opinion. In this regard, the study supports previous findings that mega-events have limited positive effects in promoting favorable foreign public opinion (Gries, Crowson and Sandel 2010, Kobierecki and Strożek 2021, Primiano 2015). However, it also introduces a new argument: Even if a mega-event may not directly generate a new impression of the host country, it can indirectly help audiences gain new knowledge, which significantly influences the national image of the host country.

One might concern about the association between the change of positive knowledge about China and views about China. The above sections indicate that positive knowledge of China significantly increased after the Olympics (see Figure 2.4), and an increase of positive knowledge is correlated with more positive views of China (see Figure 2.6), but overall opinions on China did not improve. A potential explanation could be that only those participants who gained more positive information about China experienced a positive shift in their views towards the country.

In the appendix, a comparison between Tables 2.4 and 2.6, as well as Tables 2.5 and 2.7, reveals that when positive knowledge variables are excluded, the impact of time (represented by the “panel" variable, with “before and after Olympics" as 0 and 1) on numerous attitudinal variables becomes statistically insignificant. Figure 2.12 displays the shift in public opinion about China for those participants whose positive knowledge increase was greater than 0. Comparing this to Figure 2.3, the subgroup’s opinions towards China appear less negative than those of the entire sample. As a result, it is plausible to suggest that participants who actually acquired more positive information about China played a role in the observed relationship between increased positive knowledge and shifts in public opinion.

The paper has limitations stemming from the absence of analysis on news coverage. The results suggest that news coverage significantly impacts people's knowledge and shapes their opinions about China; however, without a direct analysis of news reports during the two weeks of the Olympics, it is difficult to establish the causal effects of such coverage. For future research, an experiment could be designed using positive news about China in the context of the Olympics as the treatment, to investigate whether such news can effectively change participants' views on China. In doing so, we would be able to better understand the causal relationship between the acquisition of knowledge and shifts in public opinion.

In addition to its academic value, this paper also has important policy implications. Overall, the findings suggest that China's investment in holding mega-events has the potential to construct a positive national image, despite no direct impact on the American participants' opinions about China. Some individuals gained more positive knowledge about China, which was related to their perceived image of the country. Therefore, from the perspective of China's public diplomacy, it is recommended to continue the current strategy of holding mega-events, as similar effects may be found in other mega-events beyond the Olympics. The national branding strategy may also be effective for other countries, such as the upcoming Olympics in LA. However, it should be noted that factors other than knowledge acquisition may also play a role in shaping a nation's image, potentially explaining why opinions about China did not improve despite increased positive knowledge. Thus, countries should strive to maintain a stable national image during mega-events.

From the perspective of US audiences and voters, as the Olympics is not considered international propaganda, there is no warning needed. However, due to the focused news coverage on the host country during a mega-event, misinformation and disinformation about the host country can be overwhelming. Therefore, audiences should be aware of this and avoid letting it influence their rational thinking, which could affect their voting decisions.

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2.8 Appendix

2.8.1 Knowledge Questions

Note: Questions 1-5 are negative knowledge, 6-12 are positive knowledge, 13-17 are general knowledge, 18-20 are knowledge about IR

1. China has been accused recently of running re-education camps targeting ethnic minorities in which of the following regions? (Tibet, Xinjiang, Inner Mongolia, Guangxi, Ningxia)

2. In 2020, China enacted which of the following laws in Hong Kong? (Hong Kong Basic Law, Hong Kong National Security Law, Hong Kong Administrative Law, Hong Kong Trade Mark Law, Hong Kong Criminal Law)

3. Which of the following Chinese tennis players was recently in the news for being potentially a victim of sexual harrasment? (Li Na, Wang Qiang, Zhu Lin, Zhou Yimiao,Peng Shuai)

4. Other than Covid-19, which of the following epidemics was originated in China in the 21st century? (Ebola, MERS, SARS, Swine flu, Zika)

5. Which of the following countries or regions does China claim as part of its territory? (Mongolia, Thailand, Pakistan, Vietnam, Taiwan)

6. Generally speaking, has Beijing's air quality improved, worsened, or stayed the same in the past decade? (Improved, Worsened, Stayed the same)

7. In this question, we would like you to rank the overall capacity of renewable energy generation (e.g. sunlight, wind, rain, etc) of the following four countries: The United States, China, Brazil, and Germany.

8. Has China's one-child policy been relaxed, reinforced, or stayed the same in the last few years? (Relaxed, Stayed the same, Reinforced)

9. Which of the following numbers is closet to China's current total number of internet users? (China's total population is 1.4 billion).(50 million, 100 million, 300 million, 600 million, 1 billion)

10. In this question, we would like you to rank the GDP of the following four countries: The United States, China, Japan, Germany.

11. China's literacy rate is closet to which of the following numbers? (50%, 67%, 78%, 88%, 97%)

12. In the four decades since China started reform and opening around 1980, China's average annual economic growth rate is closet to which of the following numbers? (0.5%, 2%, 5%, 10%, 15%)

13. Which is the following numbers is closet to the length of China's recorded history? (Over 500 years, Over 1000 years, Over 2000 years, Over 3000 years, Over 6000 years)

14. Who is the current president of China? (Hu Jintao, Wen Jiabao, Mao Zedong, Xi Jinping, Jiang Zemin)

15. Which of the following animals could only be found in China?(Pangolin, Kangaroo, Panda, Beaver, Cheetah)

16. Tibet and Xinjiang are officially called ethnic "autonomous regions" in China. Does China have any other ethnic autonomous regions? (Yes, No)

17. What are the colors of China's national flag? (Blue and red, Blue and white, Red and yellow, Red and white, Red and blue)

18. Which of the following technology firms has been sanctioned by the U.S. government? (Alibaba, Lenovo, Anker, Huawai, Xiaomi)

19. In 2020, a border dispute between China and which of the following countries has resulted in the deaths of several soldiers? (India, Vietnam, Pakistan, Nepal, Cambodia)

20. In recent years, Chinese diplomats have adopted a style of democracy that is often called: (Panda diplomacy, Dragon diplomacy, Wolf warrior diplomacy, Eagle diplomacy, Ping Pong diplomacy)

2.8.2 Figures and Tables

Table 2.4: The changes on attitudinal variables across Olympics (with positive knowledge)

	Dependent variable:			
	General view of China	Perceived China threat	China's handling of Covid	Perceived importance of relations
Positive knowldege	0.195^{***}	-0.144^{***}	0.349^{***}	0.019^{**}
	(0.029)	(0.029)	(0.033)	(0.009)
age	-0.009^{***}	0.009^{***}	-0.005^{***}	-0.003^{***}
	(0.001)	(0.001)	(0.001)	(0.0004)
gender	-0.179^{***}	0.200^{***}	-0.126^{***}	-0.027^{***}
	(0.032)	(0.033)	(0.037)	(0.010)
race	0.051^{***}	−0.015	0.057^{***}	0.013^{***}
	(0.012)	(0.013)	(0.014)	(0.004)
income	-0.014^{***}	0.021^{***}	-0.024^{***}	−0.0002
	(0.004)	(0.004)	(0.005)	(0.001)
edu	−0.013	0.009	0.031^{**}	-0.012^{***}
	(0.012)	(0.013)	(0.014)	(0.004)
party	-0.143^{***}	0.154^{***}	-0.327^{***}	-0.011^{***}
	(0.013)	(0.014)	(0.015)	(0.004)
panel	-0.054^{*}	0.057^{*}	−0.006	0.007
	(0.032)	(0.032)	(0.037)	(0.010)
Constant	3.544^{***}	2.470^{***}	3.781^{***}	0.378^{***}
	(0.150)	(0.153)	(0.173)	(0.046)
Observations	4,134	4,134	4,134	4,134
R^2	0.073	0.070	0.155	0.023
Adjusted R^2	0.071	0.069	0.153	0.021
Residual Std. Error (df = 4125)	1.015	1.037	1.175	0.314
F Statistic (df = 8; 4125)	40.705^{***}	39.031^{***}	94.463^{***}	12.301^{***}

Note: SEs in parentheses. $^{*}p<0.1$; $^{**}p<0.05$; $^{***}p<0.01$

Table 2.5: Continued: The changes on attitudinal variables across Olympics (with positive knowledge)

	Dependent variable:				
	Not deserve hosting	Dovish preference	Confidence in China	Interest in China	Economic attitude
Positive knowldege	-0.108^{***}	0.180^{***}	0.068^{***}	0.224^{***}	0.182^{***}
	(0.037)	(0.022)	(0.024)	(0.024)	(0.021)
age	0.011^{***}	-0.003^{***}	-0.008^{***}	-0.003^{***}	-0.009^{***}
	(0.002)	(0.001)	(0.001)	(0.001)	(0.001)
gender	0.267^{***}	-0.049^{*}	-0.148^{***}	0.084^{***}	-0.028
	(0.041)	(0.025)	(0.027)	(0.027)	(0.023)
race	-0.070^{***}	0.005	0.048^{***}	0.040^{***}	0.020^{**}
	(0.016)	(0.010)	(0.010)	(0.010)	(0.009)
income	0.024^{***}	-0.009^{***}	-0.016^{***}	-0.009^{***}	-0.006^{**}
	(0.005)	(0.003)	(0.004)	(0.004)	(0.003)
edu	0.027^{*}	0.014	-0.017^{*}	0.030^{***}	0.002
	(0.016)	(0.010)	(0.010)	(0.010)	(0.009)
party	0.102^{***}	-0.266^{***}	-0.103^{***}	-0.133^{***}	-0.133^{***}
	(0.017)	(0.010)	(0.011)	(0.011)	(0.010)
panel	0.234^{***}	-0.005	-0.018	-0.037	-0.056^{**}
	(0.041)	(0.025)	(0.026)	(0.026)	(0.023)
Constant	1.863^{***}	4.207^{***}	0.956^{***}	0.158	0.751^{***}
	(0.193)	(0.117)	(0.125)	(0.125)	(0.108)
Observations	4,134	4,134	4,134	4,134	4,134
R^2	0.055	0.172	0.063	0.080	0.100
Adjusted R^2	0.053	0.171	0.062	0.078	0.098
Residual Std. Error (df = 4125)	1.307	0.794	0.846	0.844	0.734
F Statistic (df = 8; 4125)	29.862^{***}	107.382^{***}	34.905^{***}	44.817^{***}	57.035^{***}

Note: SEs in parentheses. *p<0.1; **p<0.05; ***p<0.01

Table 2.6: The changes on attitudinal variables across Olympics (without positive knowledge)

	Dependent variable:			
	General view of China	Perceived China threat	China's handling of Covid	Perceived importance of relations
age	-0.008^{***}	0.009^{***}	-0.005^{***}	-0.002^{***}
	(0.001)	(0.001)	(0.001)	(0.0004)
gender	-0.151^{***}	0.180^{***}	-0.076^{**}	-0.024^{**}
	(0.032)	(0.033)	(0.037)	(0.010)
race	0.049^{***}	-0.014	0.053^{***}	0.013^{***}
	(0.013)	(0.013)	(0.015)	(0.004)
income	-0.013^{***}	0.020^{***}	-0.022^{***}	-0.0001
	(0.004)	(0.004)	(0.005)	(0.001)
edu	-0.005	0.003	0.045^{***}	-0.012^{***}
	(0.012)	(0.013)	(0.014)	(0.004)
party	-0.154^{***}	0.162^{***}	-0.347^{***}	-0.012^{***}
	(0.013)	(0.013)	(0.015)	(0.004)
panel	-0.041	0.047	0.017	0.009
	(0.032)	(0.032)	(0.037)	(0.010)
Constant	3.440^{***}	2.546^{***}	3.596^{***}	0.368^{***}
	(0.150)	(0.153)	(0.175)	(0.046)
Observations	4,134	4,134	4,134	4,134
R^2	0.063	0.065	0.132	0.022
Adjusted R^2	0.061	0.063	0.130	0.021
Residual Std. Error (df = 4126)	1.021	1.040	1.191	0.314
F Statistic (df = 7; 4126)	39.400^{***}	40.876^{***}	89.568^{***}	13.365^{***}

Note: SEs in parentheses. $^{*}p<0.1$; $^{**}p<0.05$; $^{***}p<0.01$

Table 2.7: Continued: The changes on attitudinal variables across Olympics (without positive knowledge)

	Dependent variable:				
	Not deserve hosting	Dovish preference	Confidence in China	Interest in China	Economic attitude
age	0.011***	−0.003***	−0.008***	−0.003***	−0.008***
	(0.002)	(0.001)	(0.001)	(0.001)	(0.001)
gender	0.251***	−0.023	−0.138***	0.115***	−0.002
	(0.041)	(0.025)	(0.027)	(0.027)	(0.023)
race	−0.069***	0.003	0.047***	0.038***	0.018**
	(0.016)	(0.010)	(0.010)	(0.010)	(0.009)
income	0.024***	−0.009**	−0.016***	−0.008**	−0.005*
	(0.005)	(0.003)	(0.004)	(0.004)	(0.003)
edu	0.023	0.022**	−0.014	0.039***	0.010
	(0.016)	(0.010)	(0.010)	(0.010)	(0.009)
party	0.108***	−0.276***	−0.107***	−0.146***	−0.143***
	(0.017)	(0.010)	(0.011)	(0.011)	(0.010)
panel	0.226***	0.007	−0.013	−0.022	−0.044*
	(0.041)	(0.025)	(0.026)	(0.027)	(0.023)
Constant	1.920***	4.112***	0.920***	0.039	0.654***
	(0.192)	(0.118)	(0.124)	(0.125)	(0.109)
Observations	4,134	4,134	4,134	4,134	4,134
R^2	0.053	0.159	0.062	0.060	0.083
Adjusted R^2	0.051	0.158	0.060	0.059	0.081
Residual Std. Error (df = 4126)	1.308	0.800	0.847	0.853	0.741
F Statistic (df = 7; 4126)	32.841***	111.663***	38.647***	37.708***	53.025***

Note: SEs in parentheses. *p<0.1; **p<0.05; ***p<0.01

Figure 2.11: Changes in knowledge about China (subset)

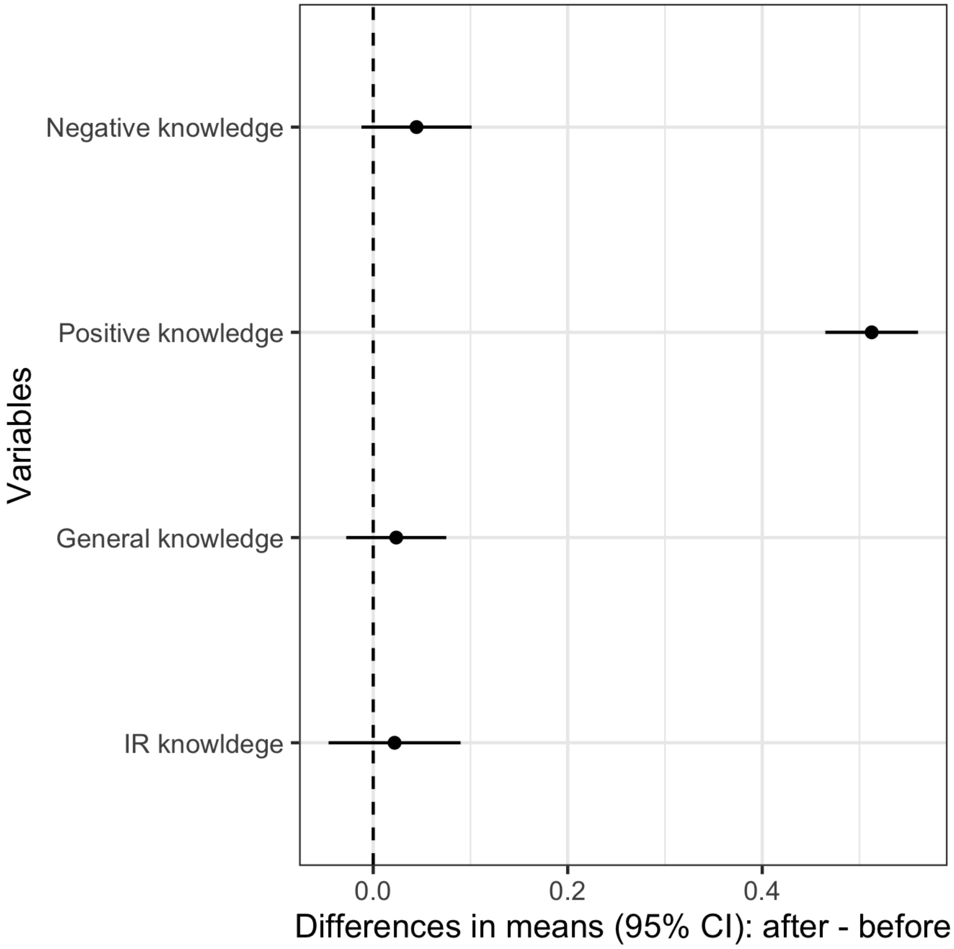


Figure 2.12: Changes in public opinion about China (subset)

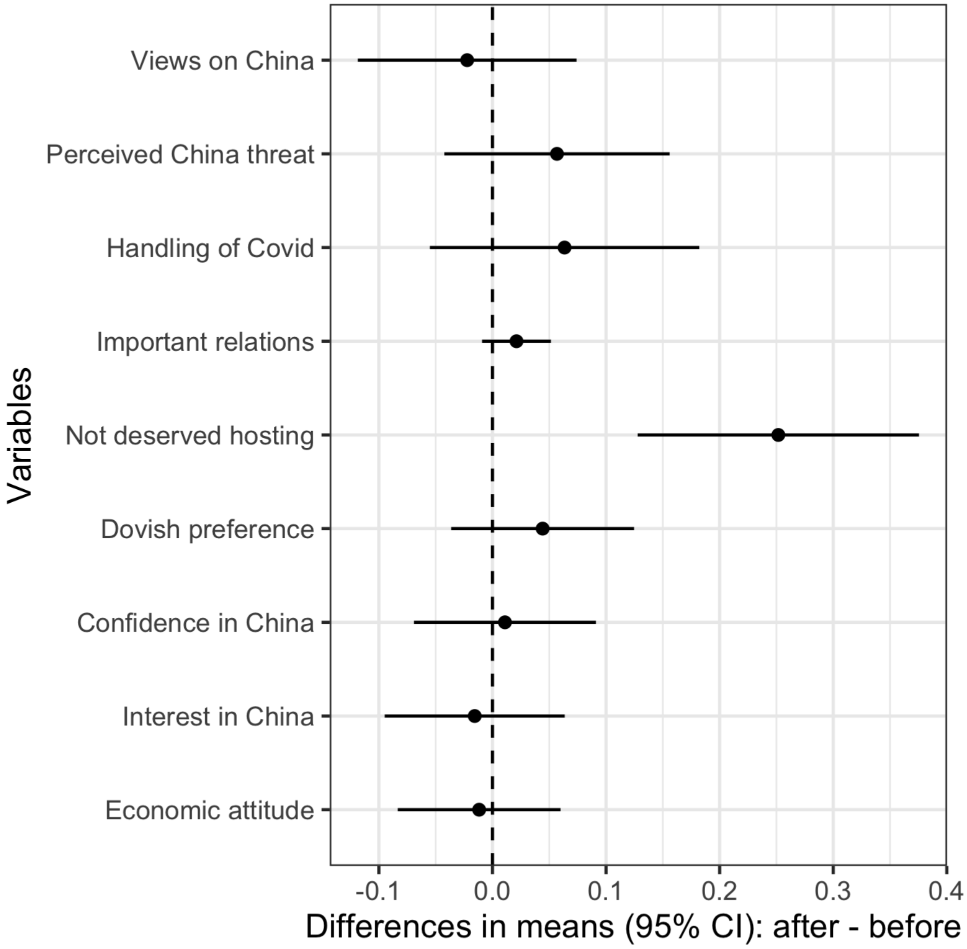


Table 2.8: Comparison of Demographic Characteristics Between Dataframes with and without Participants who Completed the Survey After the Onset of the Russia-Ukraine Conflict (Balance Table)

Covariate	Standard.Error	p.value	t.value
Gender	0.02	0.69	0.40
Income	0.12	0.68	0.41
Race	0.04	0.87	-0.17
Edu	0.04	0.74	0.33
Age	0.40	0.79	0.27
Party	0.04	0.79	-0.27
Ideology	0.04	0.98	-0.03

Figure 2.13: Difference-in-differences estimates for knowledge toward China (own_tv + stream access)

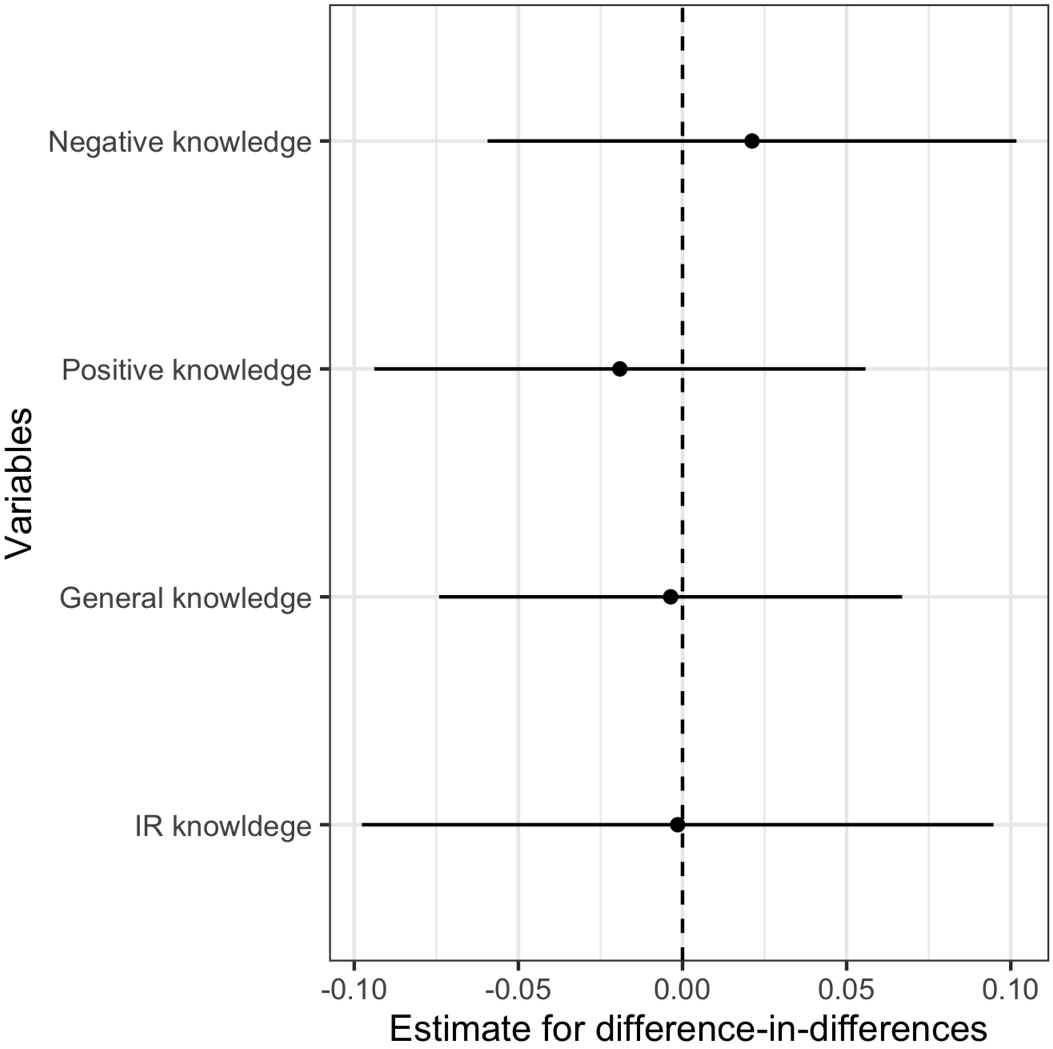


Figure 2.14: Difference-in-differences estimates for attitudes toward China (own_tv + stream access)

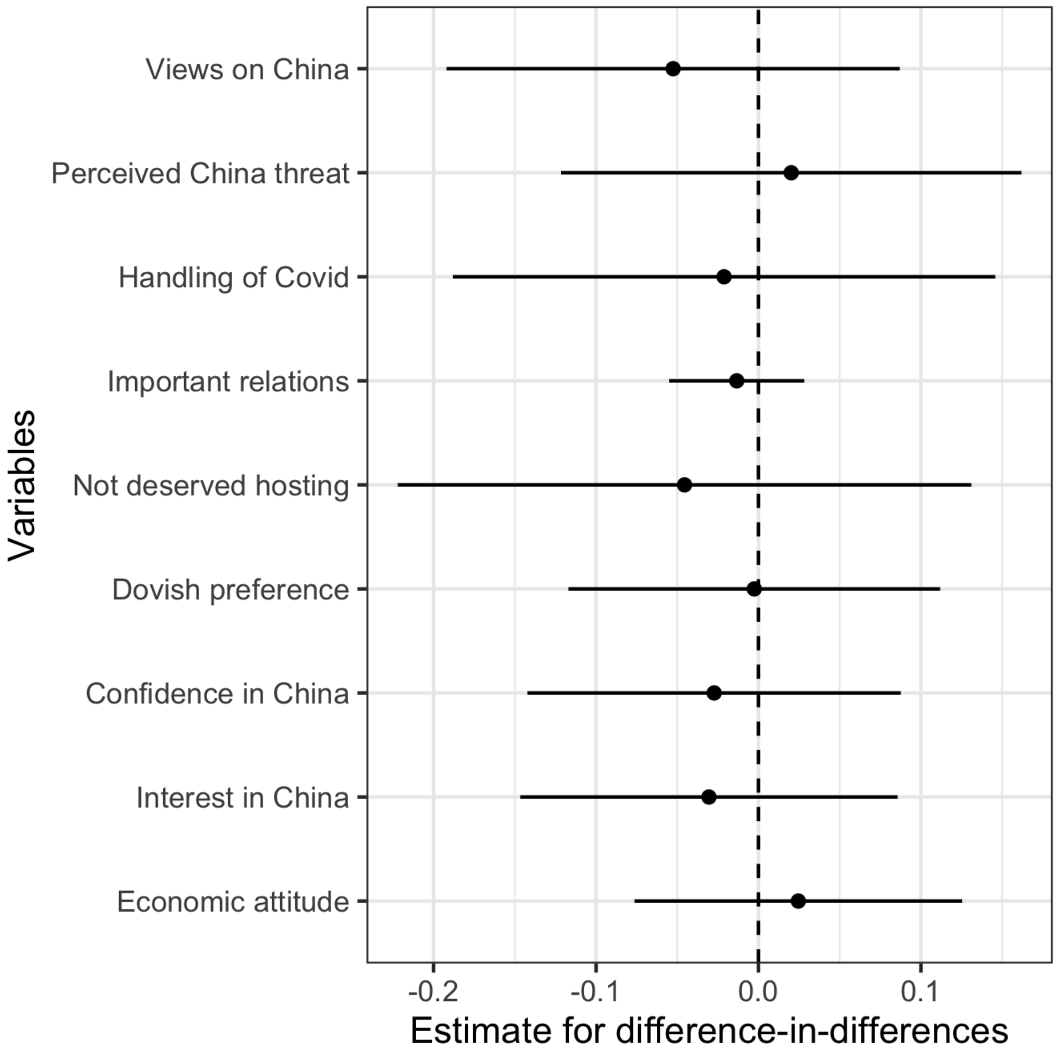


Table 2.9: Sample Demographic Characteristics (DiD; owning TVs)

Statistic	N	Mean	St. Dev.	Min	Pctl(25)	Pctl(75)	Max
Gender	1,791	0.482	0.500	0.000	0.000	1.000	1.000
Income	1,791	10.028	3.956	1.000	7.000	13.000	18.000
Race	1,791	1.592	1.296	1.000	1.000	1.000	6.000
Edu	1,791	11.365	1.393	4.000	10.000	12.000	14.000
Age	1,791	42.197	13.014	18.000	32.000	51.000	84.000
Party	1,791	2.611	1.223	1.000	2.000	3.000	5.000
Ideology	1,791	2.678	1.203	1.000	2.000	4.000	5.000

Table 2.10: Demographic Statistics for Positive Knowledge Gainer

Statistic	N	Mean	St. Dev.	Min	Pctl(25)	Pctl(75)	Max
Gender	898	0.444	0.497	0	0	1	1
Income	898	9.938	3.966	1	7	13	18
Race	898	1.578	1.272	1	1	1	6
Edu	898	11.349	1.386	4	10	12	14
Age	898	42.563	13.184	18	32	51	84
Party	898	2.604	1.224	1	2	3	5
Ideology	898	2.659	1.195	1	2	4	5

Table 2.11: Demographic Statistics for Negative Knowledge Gainer

Statistic	N	Mean	St. Dev.	Min	Pctl(25)	Pctl(75)	Max
Gender	800	0.455	0.498	0	0	1	1
Income	800	10.085	4.011	1	7	13	18
Race	800	1.586	1.301	1	1	1	6
Edu	800	11.424	1.398	4	10	12	14
Age	800	42.599	13.178	18	32	51	84
Party	800	2.581	1.226	1	2	3	5
Ideology	800	2.685	1.192	1	2	4	5

Figure 2.15: Changes in knowledge about China

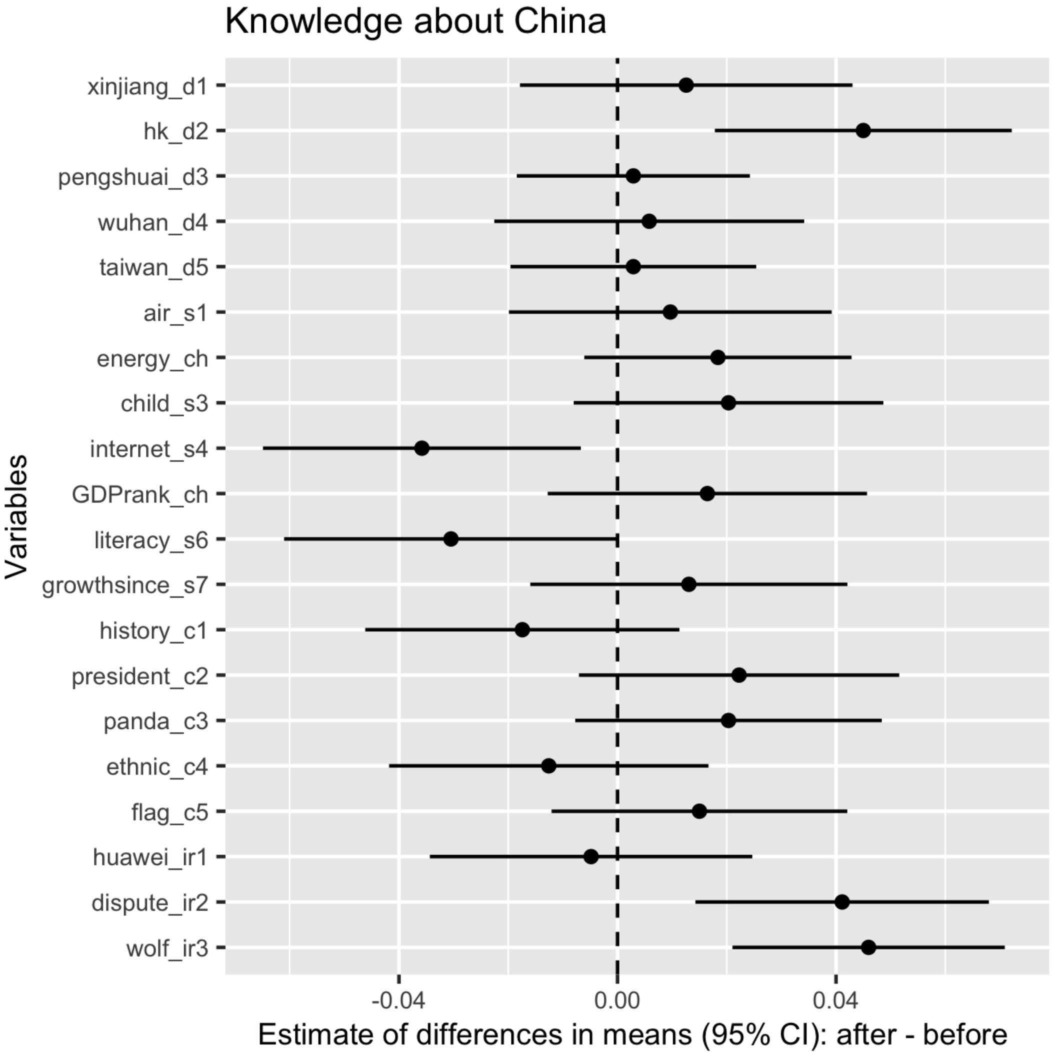


Figure 2.16: Changes in public opinion about China

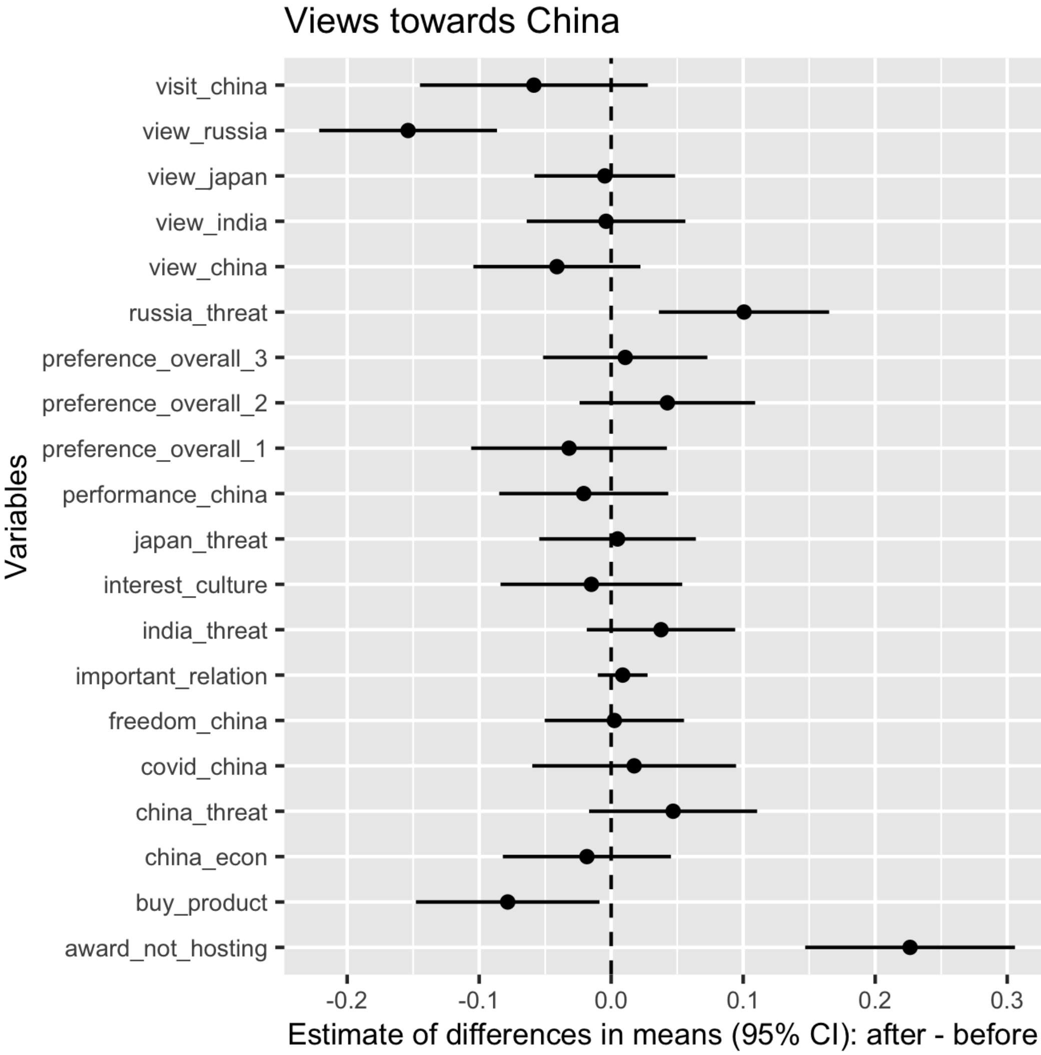


Figure 2.17: The effects of the changes in knowledge about China's domestic politics on public opinion about China

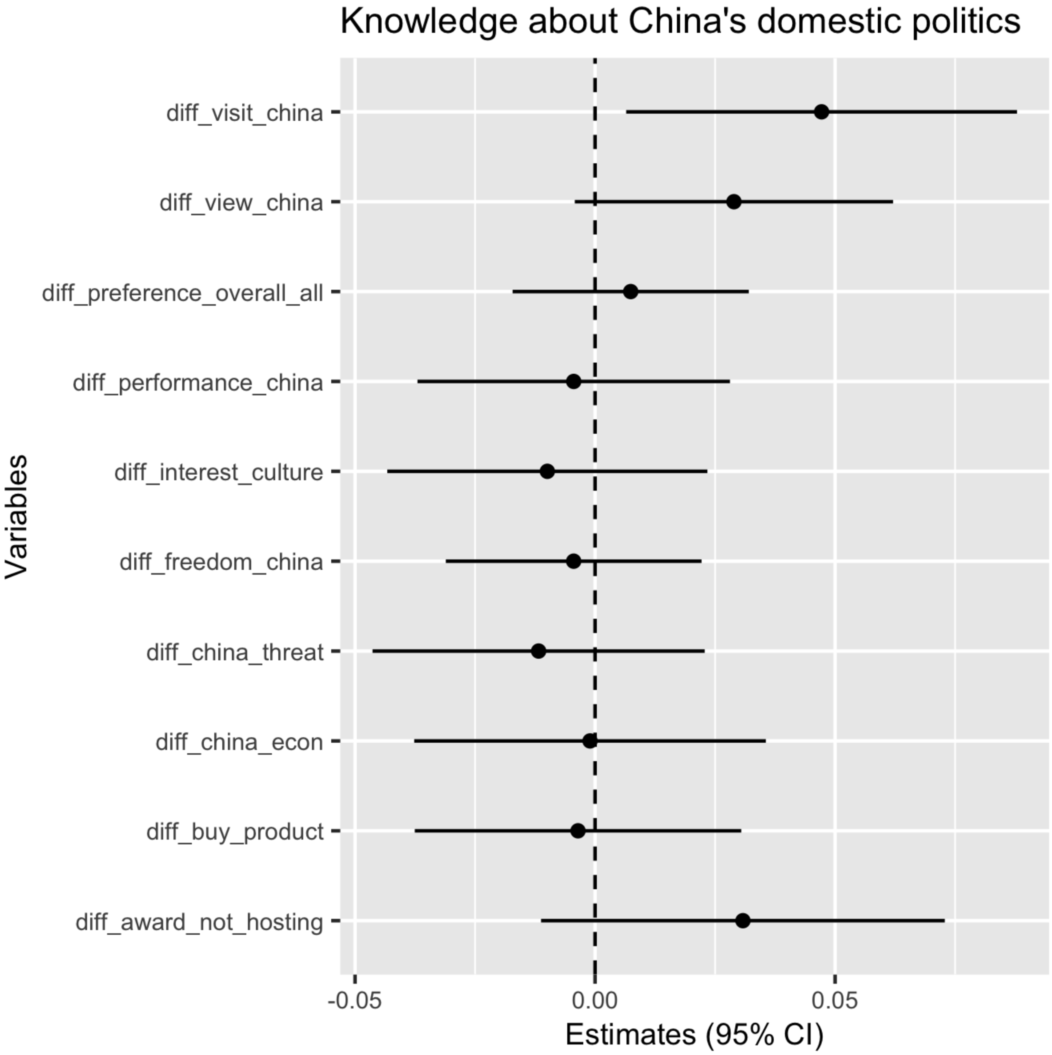


Figure 2.18: The effects of the changes in knowledge about Chinese society on public opinion about China

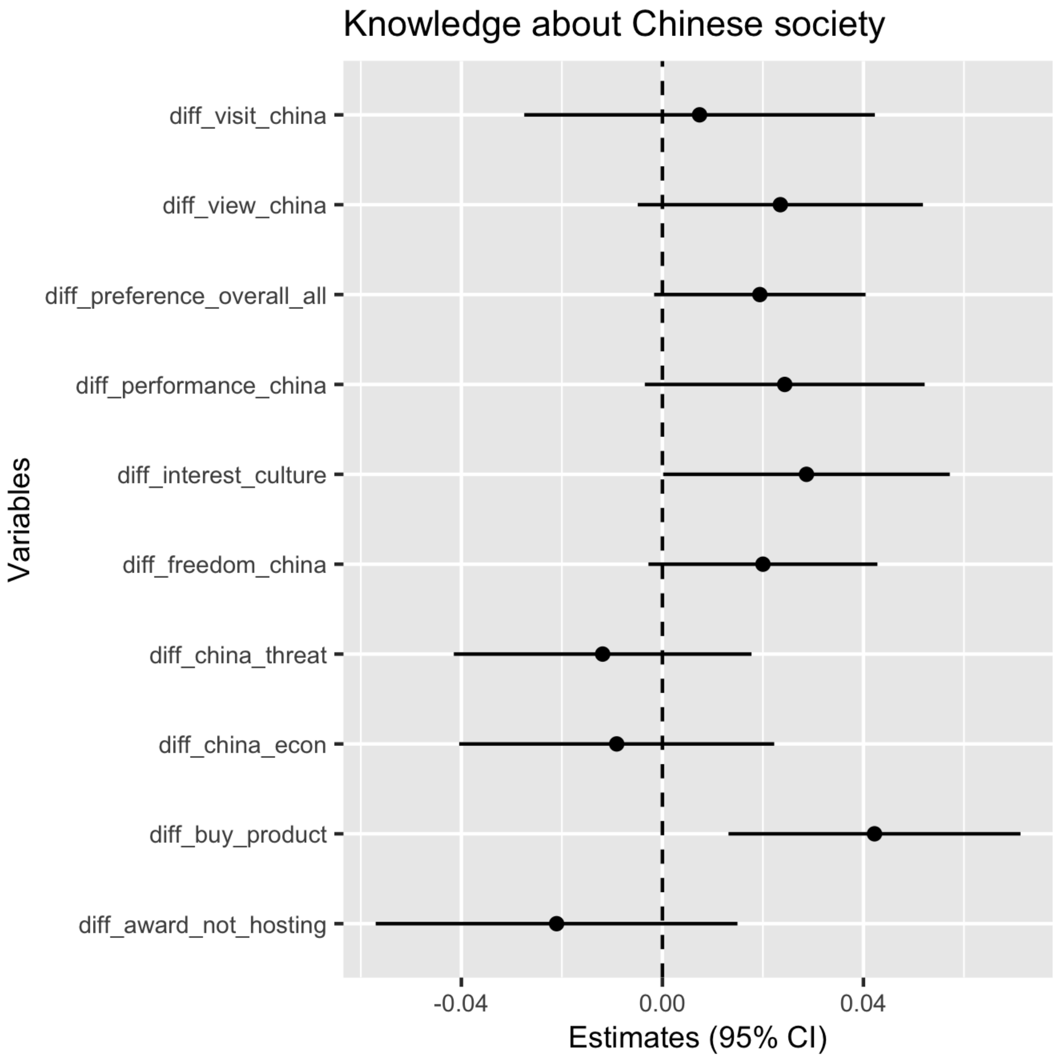


Figure 2.19: The effects of the changes in common sense about China on public opinion about China

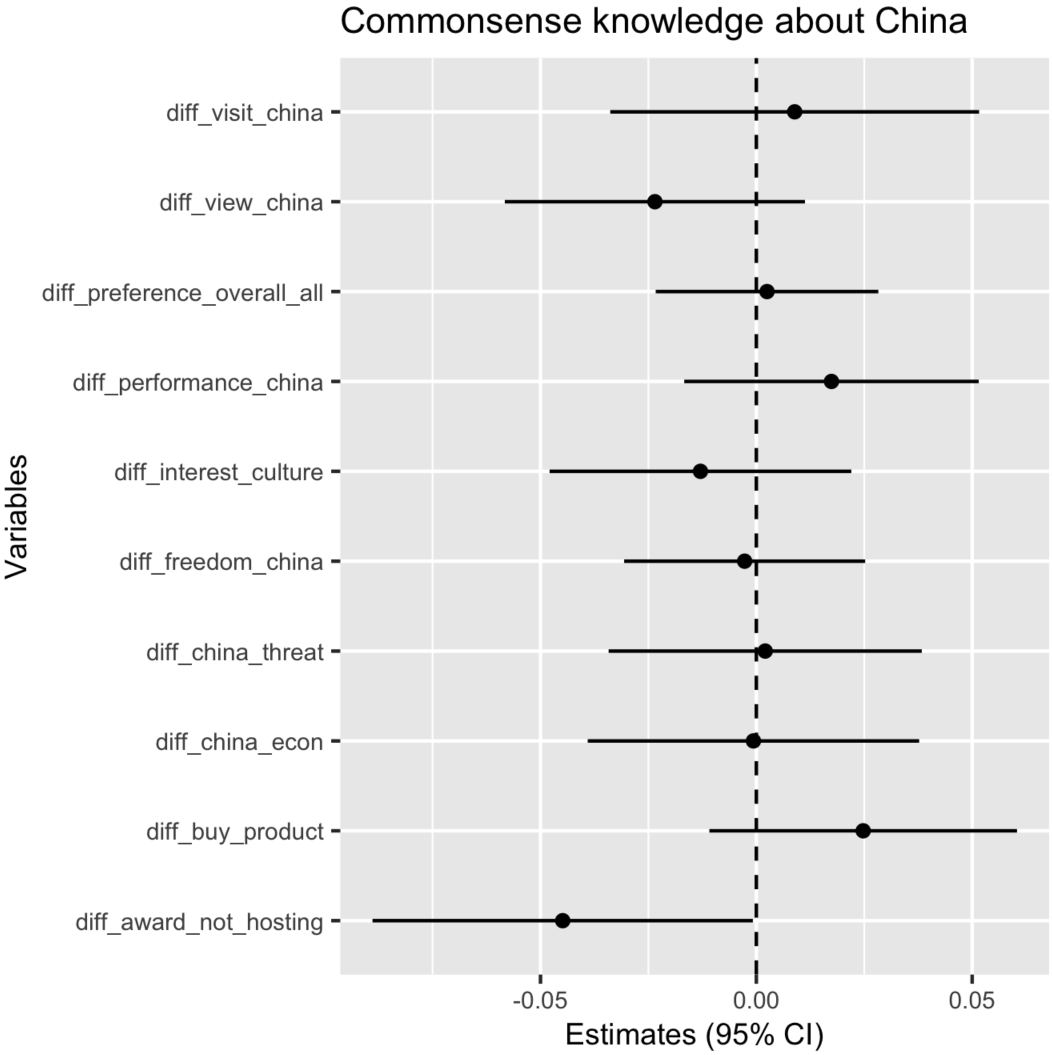


Figure 2.20: The effects of the changes in knowledge about IR on public opinion about China

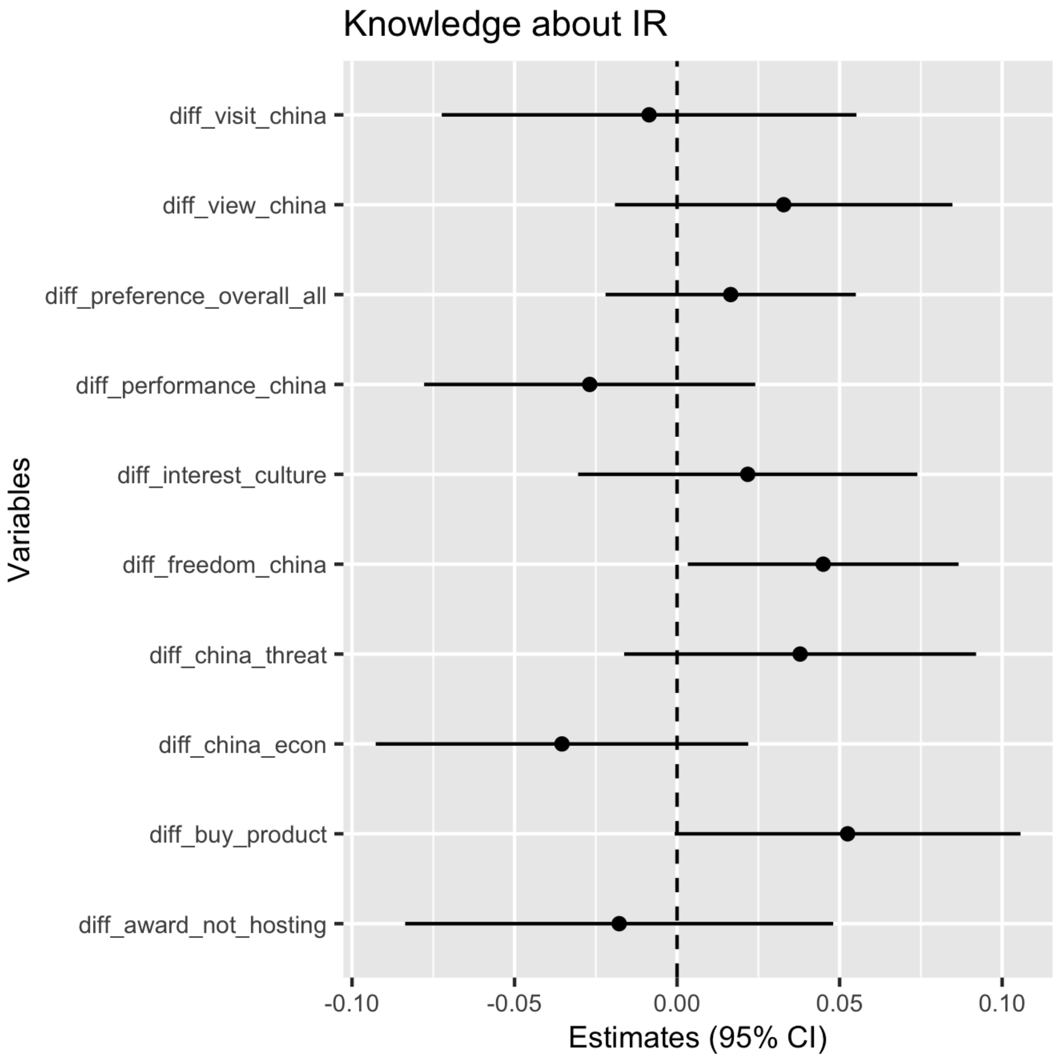
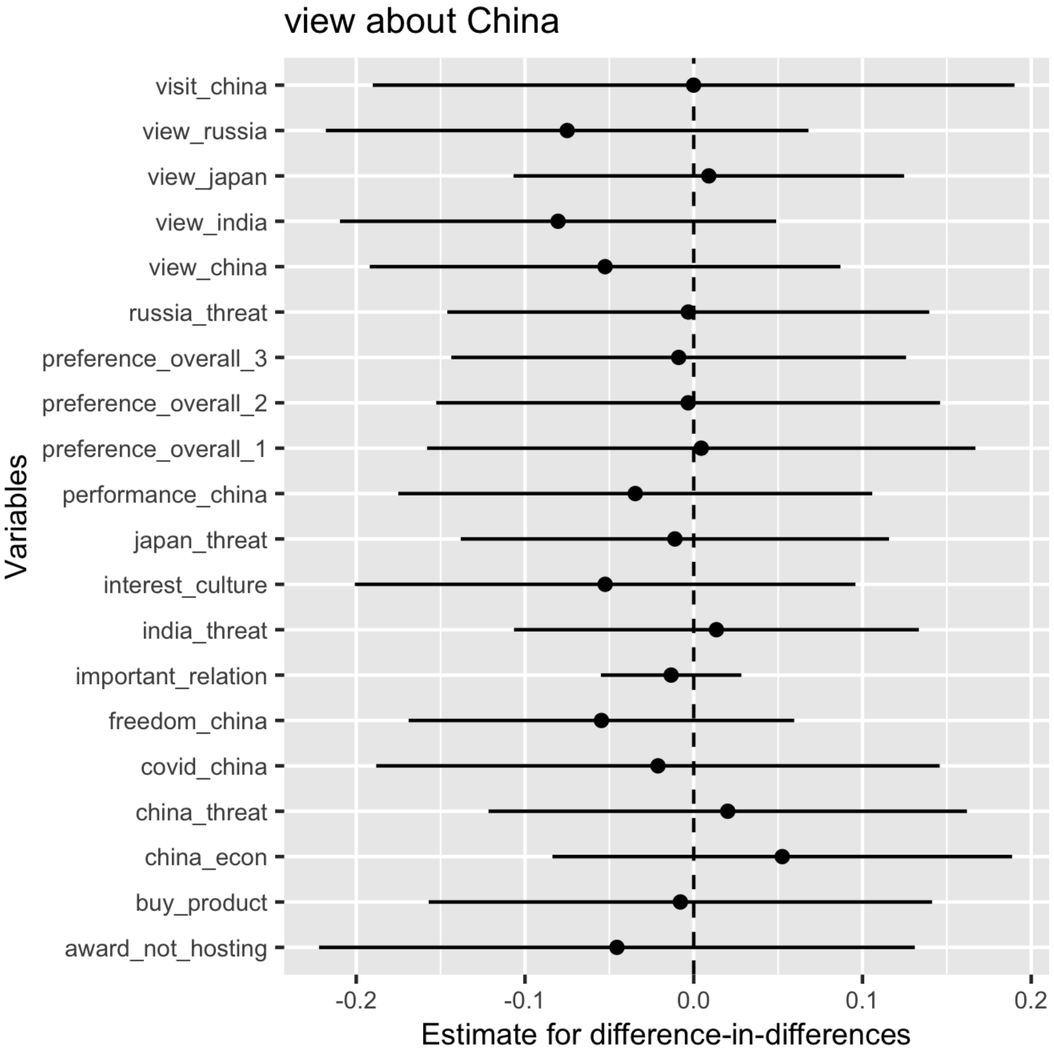


Figure 2.21: Difference-in-differences estimates for the attitudes toward China



Part III

How Non-Governmental Diplomacy Affects International Public Opinion: Evidence from a Cultural Social Media Influencer

Abstract

Public diplomacy is essential for shaping a country's image, yet it is predominantly led by governmental actors. In China, considerable resources have been allocated to government-driven public diplomacy initiatives, such as Confucius Institutes and internationalizing state-controlled news channels. However, these efforts have demonstrated limited success. In contrast, the global popularity of Chinese content creators such as Li Ziqi highlights the potential effectiveness of nongovernmental public diplomacy focusing on Chinese culture. Existing research largely focuses on government-led digital public diplomacy, neglecting the role of nongovernmental actors. This paper fills this gap by employing a survey experiment to examine the impact of Li Ziqi's Twitter content on American participants and whether official endorsement from the Chinese local government influences their perceptions. The study reveals that Li Ziqi's content positively influenced participants' general view of China and their feelings towards Chinese people, but not in specific issue topics such as China's international roles. Second, official endorsement from Sichuan government did not significantly affect the persuasiveness of her content. Furthermore, the study finds that international orientation (hawkish vs. dovish) is not a crucial factor in determining the effects of public diplomacy messages. This research offers valuable insights into the effectiveness of diverse public diplomacy strategies in shaping foreign perceptions.

3.1 Introduction

Public diplomacy has emerged as a vital instrument for nations to engage with international audiences and shape their attitudes towards the originating country (Nye 2004, 2008, Tuch 1990). The rise of digital public diplomacy has led many countries to establish social media accounts and virtual embassies to promote their national image and values. In China, culture plays a significant role in public diplomacy efforts. Like other nations, China has invested heavily in public diplomacy and the promotion of its culture under the banner of “telling China’s story". Examples include the Confucius Institute and the expansion of China’s state-controlled media outlets, reflecting China’s ambition to “go global" and allow the world to “hear China’s voice." However, a recent Pew Research Center report indicates that unfavorable views of China have risen significantly in most countries between 2020 and 2022, suggesting that China’s government-led public diplomacy has not been as effective as intended.

Nonetheless, public diplomacy is not solely the domain of governments. Non-governmental actors, such as non-profit organizations and individuals, are also integral to public diplomacy efforts (Snow and Cull 2020). According to Nye (2008), culture, political values, and foreign policies are the three sources of soft power, with culture being the most accessible for non-governmental actors to utilize in public diplomacy. Consequently, cultural public diplomacy constitutes a significant aspect of non-governmental public diplomacy. For instance, Ms. Yeah, Dianxi Xiaoge, and Li Ziqi are Chinese influencers specializing in Chinese cooking and cuisine. They have over 10 million followers on YouTube. Among them, Li Ziqi is the most popular. Since 2017, Li Ziqi has become a prominent country-life vlogger on platforms like Twitter, YouTube, and Weibo, showcasing an idyllic rural life in China. As the most popular Chinese content creator on YouTube, boasting over 17 million followers, Li Ziqi has been recognized by the Chinese government as a cultural ambassador for promoting rural Chinese customs, lifestyles, food, and handicrafts. Studies using content and discourse analysis have revealed that Li Ziqi’s videos hold the potential to influence audiences’ perceptions of China (Whyke, Chen and Lopez-Mugica 2022).

The shortcomings of state-controlled media outlets and Li Ziqi’s success imply that non-governmental public diplomacy can sometimes be more effective than its governmental counterpart. Surprisingly, while existing research primarily focuses on government-dominated public diplomacy (Zhang and Ong’ong’a 2022, Zhu 2022), little has been done to examine the role of nongovernmental actors in shaping a country’s image. As public diplomacy has evolved from a government-to-public model to a many-to-many model (Zaharna 2009), it is crucial to understand the contributions of non-governmental actors in constructing a national image.

This paper aims to address this gap by investigating the impact of Li Ziqi, a non-governmental actor conducting cultural public diplomacy, on Americans’ perceptions of China. By doing so, the paper seeks to explore the effectiveness of nongovernmental public diplomacy actors in shaping foreign perceptions of the sending country. Furthermore, as the Chinese government has endorsed Li Ziqi following her success, the paper also examines whether her official endorsement by the local government might undermine the impact of her content.

In February 2023, 1050 participants were recruited and randomly assigned to one of three groups, including a control group, a Li Ziqi group (without official endorsement), and a Li Ziqi group (with official endorsement). All treatment groups were shown six recent tweets from their Twitter accounts, while the control group saw no tweets. Although Li Ziqi is primarily active on YouTube as a video content creator, she also posts 2-minute video clips on Twitter, which were shown to participants for the purpose of efficiency.

The experiment yielded several significant findings. First, by utilizing Li Ziqi's Twitter content as a treatment, it is evident that it can considerably enhance a positive overall view of China and improve participants' feeling towards Chinese people. However, these tweets did not make a significant impact on more specific attitudes about China, such as its economic connections or international role, nor did they notably change opinions about the Chinese government. Second, the official endorsement from the local government did not affect the persuasiveness of Li Ziqi's content. Third, while not the central focus of the study, this paper investigated the relationship between international orientation and reactions to public diplomacy messages. It becomes clear that exposure to Li Ziqi's tweets prompts dovish individuals to exhibit a significantly warmer attitude towards Chinese people, while hawkish individuals remain unaffected. Fourth, performing a formal assessment of the treatment effects on hawks and doves reveals no substantial differences in their responses, suggesting that international orientation is not a primary factor in determining the influence of public diplomacy messages.

3.2 Nongovernmental role in public diplomacy

Public diplomacy refers to a tool used for communicating with foreign audiences in order to influence them towards a favorable outlook on the sending country (Nye 2004, 2008, Tuch 1990). In recent times, numerous countries have invested resources in digital public diplomacy, which is viewed as a novel mode of public engagement (Mazumdar 2021, Pelling 2015). Governments have created social media accounts, such as virtual embassies, and their diplomats have been posting messages online to promote their national images and values with the aim of influencing public opinion (Collins, DeWitt and LeFebvre 2019, Huang and Wang 2019, Yepsen 2012, Zhong and Lu 2013). State-controlled media has played a significant role in public diplomacy efforts, as exemplified by channels like Russian Today sponsored by the Russian government, Telesur sponsored by the government of Venezuela, and CGTN sponsored by the Chinese government (Crilley, Gillespie and Willis 2020, Morales 2022, Orttung and Nelson 2019).

The practices of state-controlled media accounts and online embassies are typically led by governments, as these initiatives are typically part of a government's digital public diplomacy strategy. While existing research has primarily focused on government-dominated digital public diplomacy, the roles of nongovernmental actors in this process have been somewhat overlooked. However, the involvement of nongovernmental actors is an indispensable part of public diplomacy. Actually, the term “public" in public diplomacy traditionally refers to non-governmental, unofficial, and active publics, and the term “diplomacy" refers to state-led activities (Constantinou, Kerr and Sharp 2016, Snow and Cull 2020, **?**). Thus, nongovernmental groups or individuals are crucial contributors to the conduct of public diplomacy. Efforts from both government and non-government actors are essential to establish an effective national brand (Valls 1992). Non-profit organizations, for instance, can significantly contribute to shaping a country’s image (Turker, Konakli et al. 2016). Popular culture, has also proven to be an effective tool. For example, the Korean Wave movement, including K-dramas and K-pop, has successfully motivated large groups of people to learn the Korean language (Lee 2018) and study Korean culture (Hernández 2018). In fact, underground consumption of South Korean media has even led to an increase in migration from North Korea to South Korea (Kim 2019). As a result, the Korean Wave has played a significant role in promoting Korea’s growing global popularity (Daniel III and Musgrave 2017, Iwabuchi 2015).

3.3 Cultural Public Diplomacy in China

There are numerous forms of public diplomacy, but in the context of non-governmental public diplomacy, culture is the most accessible resource for non-governmental actors, or even individuals, to utilize and promote. According to Nye (2008), a country’s soft power primarily stems from three sources: its culture, its political values, and its foreign policy. While governmental actors can enhance political values and determine foreign policy, individuals can serve as unofficial cultural ambassadors to promote their own country’s culture. Signitzer and Coombs (1992) suggests that there are two stages of cultural diplomacy: creating cultural agreements and executing them. While executing cultural agreements through diplomatic activities can only be accomplished by political actors, non-governmental actors and individuals can help create cultural agreements across national borders.

In China, in particular, culture plays a crucial role in public diplomacy efforts. The promotion of Chinese culture has been an integral component of China’s public diplomacy agenda. “Tell the story of China" is a slogan introduced by President Xi Jinping in August 2013 during a meeting on public diplomacy, often accompanied by another slogan: “Spread the voice of China".[4] Culture has always been a vital aspect of China’s soft power (Becard and Menechelli 2019). Xi Jinping even links the term “soft power" with “cultural": Cultural soft power reflects a country’s cohesion and vitality based on its culture, as well as the resulting appeal and influence. Several public diplomacy initiatives have been launched to enhance Chinese culture, such as the Confucius China Studies Program and the Confucius Institutes. These programs focus on Chinese culture, as culture is the primary resource for China to conduct public diplomacy and boost its soft power (Becard and Menechelli 2019, Cao 2011, Glaser and Murphy 2009). Unlike the US, which possesses political values that are relatively universally attractive (Maisuwong 2012), China's political values are not as widely accepted in the Western world. Therefore, culture is the least likely to backfire and is beneficial for strengthening China's distinctiveness and cultural identity.

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[4] http://www.qstheory.cn/zhuanqu/2021-06/02/c_1127522386.htm

Cultural diplomacy is particularly important for China for a simple reason: many of its "go global" efforts have proven ineffective or even counterproductive. China's state-controlled media has invested heavily in internationalization. Xinhua News Agency operates over 100 international offices worldwide and reports news in eight languages. China Global Television Network (CGTN), formerly CCTV, has TV channels accessible in over 200 countries. Despite this substantial investment, governmental public diplomacy has not resulted in a positive image for China. According to the Pew Research Center, Americans' unfavorable view of China increased from 66% to 82% between 2020 and 2022.[5] A similar pattern is observed in other countries, such as Canada, Sweden, and Poland, where unfavorable views of China have risen markedly in recent years.

Part of the reason for this outcome may be related to the source of credibility. The credibility of cultural soft power can influence how message receivers perceive the sending country (Nye 2008). China's governmental public diplomacy, primarily led by state-controlled media outlets, has been less effective due to the negative reputation of the Chinese government. As a result, non-governmental public diplomacy, particularly when facilitated by cultural resources, can be detached from political biases and governmental standpoints, ultimately benefiting China's national image.

According to Nye (2004), "when a country's culture includes universal values and its policies promote values and interests that others share, it increases the probability of obtaining its desired outcomes because of the relationship of attraction and duty that it creates". In other words, public diplomacy becomes more effective when two countries share a similar culture and values due to the common background facilitating communication. For the US, universal values such as freedom and democracy are often portrayed in Hollywood movies (Rugh 2017). While it is challenging for China to create cultural values with universal appeal, the phenomenon of Li Ziqi presents a unique opportunity.

Li Ziqi is a renowned Chinese social media influencer who gained her fame for showcasing her rural life in Chengdu, Sichuan province. Her videos present idyllic scenes of country life and depict the process of making Chinese food and handicrafts from scratch, which have attracted a vast audience. Since starting to share her videos on YouTube and Weibo in 2016, Li Ziqi has become the most popular Chinese influencer with 17.4 million subscribers on YouTube. Watching her videos is akin to experiencing Chinese culture, as they offer a glimpse into the Chinese food and craft traditions, potentially shaping viewers' perceptions of China. Li Ziqi's latest update was in July 2021, after which she ceased updating her channel due to disputes with her channel management company. Despite her year-long silence, her number of YouTube subscribers has continued to grow.

Her business disputes seemed to be resolved by December 2022, and she is anticipated to resume posting content soon. My study was conducted during the interlude, which in fact increased the validity of the study since the probability that respondents had been watching her videos around the time of the experiment—and thus be pretreated—was small, ensuring that the experimental results accurately reflected the potential impact her content had in the past and is likely to have when she begins posting again.

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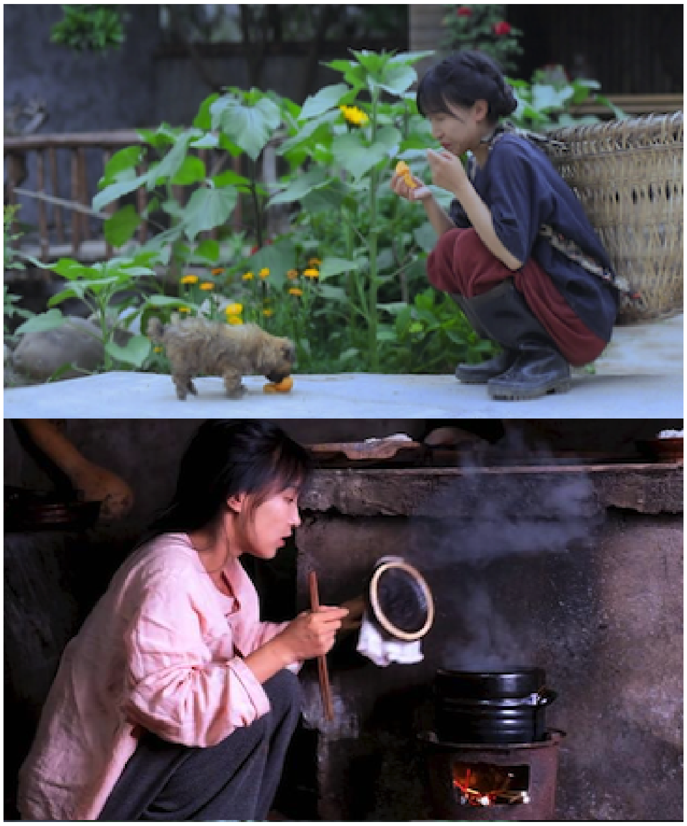
[5] https://www.pewresearch.org/global/2022/09/28/how-global-public-opinion-of-china-has-shifted-in-the-xi-era/

Figure 3.1: Screenshots from Li Ziqi's videos



Unlike most cultural promotion content, Li Ziqi's videos do not intentionally showcase Chinese culture. Instead, they primarily depict a serene and bucolic lifestyle. For instance, as shown in Figure 3.1, she is seen collecting vegetables and flowers in a wooden basket and cooking lunch using a traditional stove fueled by dry hay and wood. This idyllic portrayal of country life appeals to people's desire to escape their fast-paced, mundane lives and immerse themselves in a place free from the technological illness of modernity. Moreover, her videos mostly lack dialogue, allowing viewers to enjoy them without needing to understand the Chinese language.

Li Ziqi's huge popularity is considered a form of nongovernmental public diplomacy that bolsters China's soft power. Although not deliberate, her videos present various aspects of Chinese culture, including aesthetics, customs, and values. Comments under her videos suggest that her content can influence viewers' perceptions of China (Whyke, Chen and Lopez-Mugica 2022). The Chinese government has also recognized Li Ziqi's influence. She has received numerous awards and official endorsements since 2018, such as the Ambassador of Intangible Cultural Heritage for Chengdu City and Ambassador for the Chinese Farmers' Harvesting Festival by the Ministry of Agriculture. In 2020, she was elected as a committee member of the 13th Communist Youth League Central Committee. As her popularity and official endorsements grow, some people have begun to question whether she is supported by the Chinese government or if her videos are a new form of propaganda. However, there is no evidence of any collaboration with officials.

The number of followers on social media platforms indicates that Li Ziqi, as a representative of China's nongovernmental public diplomacy, has been more successful in promoting Chinese culture and "letting the world hear China's voice" than her governmental counterparts. To understand the how and if of nongovernmental public diplomacy, particularly in the context of China, analyzing Li Ziqi serves as an excellent starting point.

3.4 Hypotheses

As the previous sections indicate, nongovernmental public diplomacy is an essential component of public diplomacy. Furthermore, in China, cultural public diplomacy constitutes the main aspect of nongovernmental public diplomacy. In comparison to governmental initiatives, nongovernmental cultural promotion efforts offer several advantages, such as avoiding the perception that government sources have political motivations and biased viewpoints. However, as public diplomacy has evolved from a government-to-public model to a many-to-many model (Zaharna 2009), it is surprising that there is limited research on how nongovernmental actors, especially individuals, contribute to shaping a national image. Two significant gaps exist in this field. First, the majority of public diplomacy research focuses on message originators' strategies, such as content and network analysis (Zhang and Ong'ong'a 2022, Zhu 2022), with very few studies examining how foreign audiences react to public diplomacy messages. Second, there is a lack of research on how digital creators like Li Ziqi, as representatives of nongovernmental public diplomacy conductors and cultural ambassadors, are integrated into public diplomacy engagement and whether their popularity and content can enhance their respective countries' international recognition (Bier 2017, Chen and Whyke 2021, Ewen 2021).

The study aims to understand the primary research question: What's the actual effects of nongovernmental public diplomacy? The study uses Li Ziqi as a representative of the nongovernmental actors to answer the questions. Li Ziqi's immense popularity on social media has made her a prominent figure in popular culture, akin to the phenomenon of Korean culture. Her entertaining content has the potential to appeal to audiences and promote Chinese culture. Unlike governmental actor, Li Ziqi is an independent digital content creator, so there are likely fewer concerns about her work having political motivations. Nonetheless, as Li Ziqi has become a driving force in China's public diplomacy and received numerous official endorsements, it raises the question of whether these endorsements will affect Americans' perception of her videos and China. All of the cultural endorsements she received are from the local level, and I take Li Ziqi being awarded the title of “culture ambassador" by the Sichuan government in 2019 to investigate this question. I have competing hypotheses regarding the impact of the government endorsement. On one hand, the endorsement might diminish her credibility, thereby weakening her effectiveness. On the other hand, since the endorsement comes from a local government rather than China's central government, its effects might be minimal.

Hypothesis 1: *Participants exposed to Li Ziqi's content have more favorable opinions on China.*

Hypothesis 2a: *The government official endorsement will undermine the effects of Li Ziqi's content.*

Hypothesis 2b: *The government official endorsement will not undermine the effects of Li Ziqi's content.*

In addition to the primary research interest, I am also interested in exploring which individuals are more likely to be influenced by Li Ziqi's content. Given that the outcome variables of interest are participants' opinions toward a foreign country, I am particularly interested in examining how their international orientations (hawkish vs. dovish) may contribute to their attitudes. Hawks and doves represent two distinct beliefs about foreign countries and foreign policy, with doves prioritizing peace and stability and preferring diplomatic and nonviolent conflict resolutions, while hawks prioritize strength and security and are willing to use military force to achieve their goals (Schultz 2005). Partisanship are related to international orientations, with Republicans more likely to be hawkish than Democrats (Kertzer and Zeitzoff 2017). Given that Republicans typically hold a colder attitude toward China (Aldrich, Lu and Kang 2015), it is reasonable to speculate that hawkish individuals may be more resistant to content from Chinese social media influencers.

Furthermore, Foster and Keller (2014) reveals that individuals with hawkish leaning are more likely to view the world in a black-and-white lens, which may make them less receptive to new information and more inflexible. In contrast, individuals with a non-hawkish perspective are more likely to seek out new information and have a more open-minded approach. Therefore, hawkish individuals may be less affected by Li Ziqi's content, particularly in terms of their feelings toward China.

Hypothesis 3 *Hawkish participants are less likely to be influenced by Li Ziqi's tweets than dovish participants in terms of their attitudes toward China.*

3.5 Research Design

In February 23, 2023, I recruited a total of 1050 participants through Cloud Research, an online panel provider. They were randomly assigned to one of the three groups: control group, Li Ziqi group (without the official endorsement), and Li Ziqi group (with the official endorsement). The first Li Ziqi group was presented with the six most recent 2-minute video tweets from Li Ziqi's Twitter account, which are shortened versions of her full-length YouTube videos. The second Li Ziqi group was exposed to the same six video tweets as the first group, but with an endorsement from the Sichuan government demonstrating that Li Ziqi was awarded the title of culture ambassador in 2019. Participants in both treatment groups were required to remain on the treatment page for at least two minutes before being directed to the next page. The control group was not shown any tweets and was instructed to answer post-treatment questions without prior exposure to any information.

To direct participants to the treatment group without endorsement, I provided the following introduction: : "*On the next page, you will see some social media feeds from a handicraft video blogger named Li Ziqi. You need to spend a minimum of two minutes on the page before you can move to the next page, but we hope you'll spend more time and watch/enjoy all the feeds.*" For the endorsement group, I added an additional sentence to the introduction to mention her title: "*On the next page, you will see some social media feeds from a handicraft video blogger named Li Ziqi.* ***Chinese local government (Chengdu) awarded her the title of cultural ambassador in 2019****. You need to spend a minimum of two minutes on the page before you can move to the next page, but we hope you'll spend more time and watch/enjoy all the feeds.*"

The treatment materials consist of six video tweets by Li Ziqi, showcasing her creating a wine table in the first two videos and roasting fresh green tea and infusing tea with flowers in the remaining four videos. The treatment details can be found in the appendix. These tweets are typical of the content that Li Ziqi usually posts. It's important to note that all of Li Ziqi's tweets consist of 2-minute clips from her YouTube videos, which are often over 10 minutes in length. The reason for selecting Twitter over YouTube to present the treatments was due to the length of the videos. To ensure maximum efficiency, I aimed to expose the participants to as much content as possible, and using various 2-minute clips on Twitter was more effective than presenting an over-10-minute long video on YouTube.

After the treatment exposures, all participants were administered a set of questions regarding their viewpoints on China, such as their overall attitude toward China. Two feeling-thermometer questions were also posed to gauge participants' sentiments towards Chinese people and Chinese government. Additionally, there were three aggregate variables. The variable *economic attitudes* is an amalgamated variable of two variables: willingness to purchase Chinese products and the level of agreement with the statement that the US should form strong economic ties with China. Based on the factor analysis results, each of the two variables contribute over 50% to a factor loading. This indicates the existence of a latent variable linked to economic matters that captures participants' responses to the two questions. Using the factor scores, I created the aggregate variable *economic attitudes*[6].

Similarly, I formed an aggregate variable *international confidence* for the level of agreement with the statement that having China as the world's leading power would be better for the world and the level of confidence in China doing the right thing regarding world affairs, as the general confidence in China's role in international matters may secretly influence participants' responses to the two questions. Lastly, I created an aggregate variable *culture attitudes* based on participants' willingness to visit China and their interest in Chinese culture.

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[6] I utilized the *mirt* package

Table 3.1: Demographic statistics of the participant sample

Statistic	N	Mean	St. Dev.	Min	Pctl(25)	Pctl(75)	Max
Gender	1,050	0.458	0.498	0	0	1	1
Income	1,050	10.177	3.919	1	8	13	18
Race	1,050	1.611	1.297	1	1	1	6
Edu	1,050	11.495	1.372	4	10	12	14
Age	1,050	4.536	2.105	1	3	6	10
Party	1,050	2.604	1.266	1	2	4	5
Ideology	1,050	2.733	1.135	1	2	4	5
Hawk_dove	1,050	0.298	0.458	0	0	1	1

Table 3.2: Balance Check Across Three Groups

	Df	Sum Sq	Mean Sq	F value	Pr(>F)
Gender	2	0.53	0.27	1.07	0.3432
Income	2	31.12	15.56	1.01	0.3635
Race	2	7.05	3.52	2.10	0.1232
Education	2	2.07	1.03	0.55	0.5776
Age	2	0.41	0.21	0.05	0.9543
Party	2	3.12	1.56	0.97	0.3778
Ideology	2	5.93	2.96	2.31	0.1002

Table 3.1 displays the demographic statistics of the participants recruited in the survey experiment. As Table 3.1 shows, the gender of the participants is relatively balanced, with slightly more males than females (569 males and 481 females). The age distribution of the participants is also noteworthy, with most falling between the ages of 24 and 53. The average income level of $40,000 to $49,999 may indicate that the sample is largely comprised of working professionals. Regarding the racial distribution, 75% participants are Caucasian and the rest are minorities. Approximately 60% of the participants hold a bachelor's degree or higher. In terms of political affiliation, 53% of them identified as democrats, while 20% identified as independents, and 27% identified as republicans. Besides the demographic information, participants were queried about their international orientation with respect to the US's diplomatic relations with China, such as whether they were more inclined toward a hawkish or dovish approach. 70% of the participants prefer dovish approach than hawkish approach.

In general, it is evident that the sample is relatively diverse, although it is skewed toward certain demographic such as age, educational level, and political affiliation. Which is not surprising given the participants are online panalist, thus they are relatively young, liberal, and well educated. Therefore, the sample demographics is not representative to the US population. The balance check results for the control group and two treatment groups are presented in Table 3.2. The results indicate that the randomization process was successful, as the sample characteristics of the three groups are not significantly different.

3.6 Results

Figure 3.2 shows Average Treatment Effects (ATEs) of Li Ziqi's tweets and Li Ziqi's tweets with the official endorsement. Panel A shows the ATEs on four China-related variables, from the general view about China to cultural attitudes towards China. Panel B shows the ATEs on two feeling-thermometer variables: feeling about the Chinese government and Chinese people. According to Panel A, both two Li Ziqi groups had a significant effect on improving the general view of China. Panel B reveals that it is Li Ziqi group with the endorsement, not Li Ziqi group, is positively and significantly associated with the feeling about Chinese people. Regarding other variables, either treatment is not significant. The results show that in general, Li Ziqi's Twitter content had significant but limited effects on Americans' attitudes towards China.

After comparing Li Ziqi's groups with the control group, I would like to ascertain whether the local government endorsement influenced the participants' reaction to Li Ziqi's tweets. For this purpose, I selected the Li Ziqi group without the endorsement as the control group and the other one with the endorsement as the treatment group. Figure 3.3 demonstrates that the local government endorsement had no significant effect on any of the outcome variables. As both panels indicate, the endorsement didn't have significant effects on any of the variables at a significance level of 0.05. This is to say, the local government endorsement didn't affect participants' reactions to Li Ziqi's tweets. Moreover, the manipulation check results indicate that almost half of the participants (180 out of 356) in the endorsement group did not notice that Li Ziqi was awarded the title of cultural ambassador by the Sichuan government. Therefore, the two Li Ziqi groups were combined into one for further analysis.

Figure 3.2: ATEs of Li Ziqi and Li Ziqi with Local Endorsement

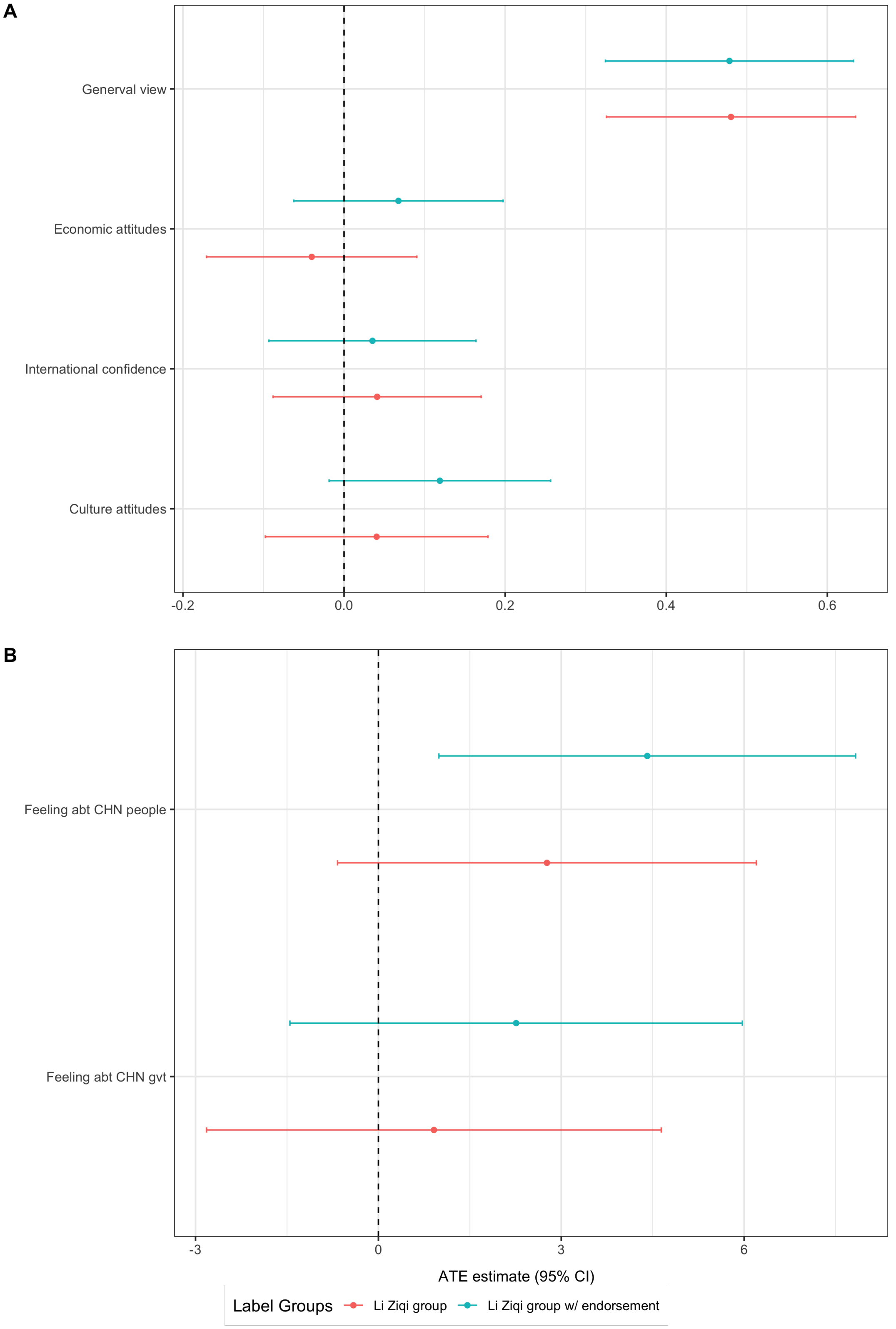


Figure 3.3: ATEs of Local Government Endorsement

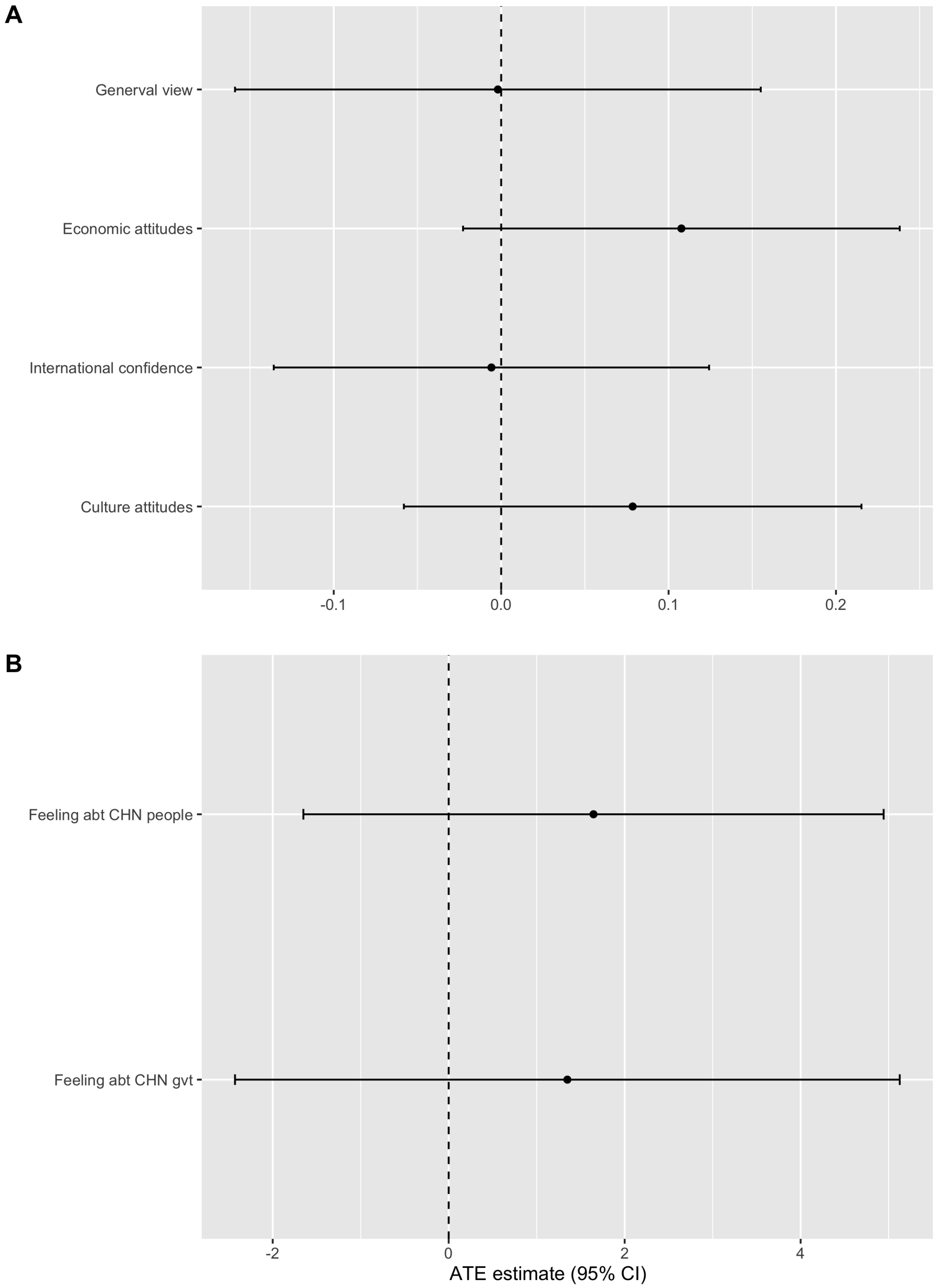


Figure 3.4: ATEs of Li Ziqi’s Tweets for Hawks and Doves

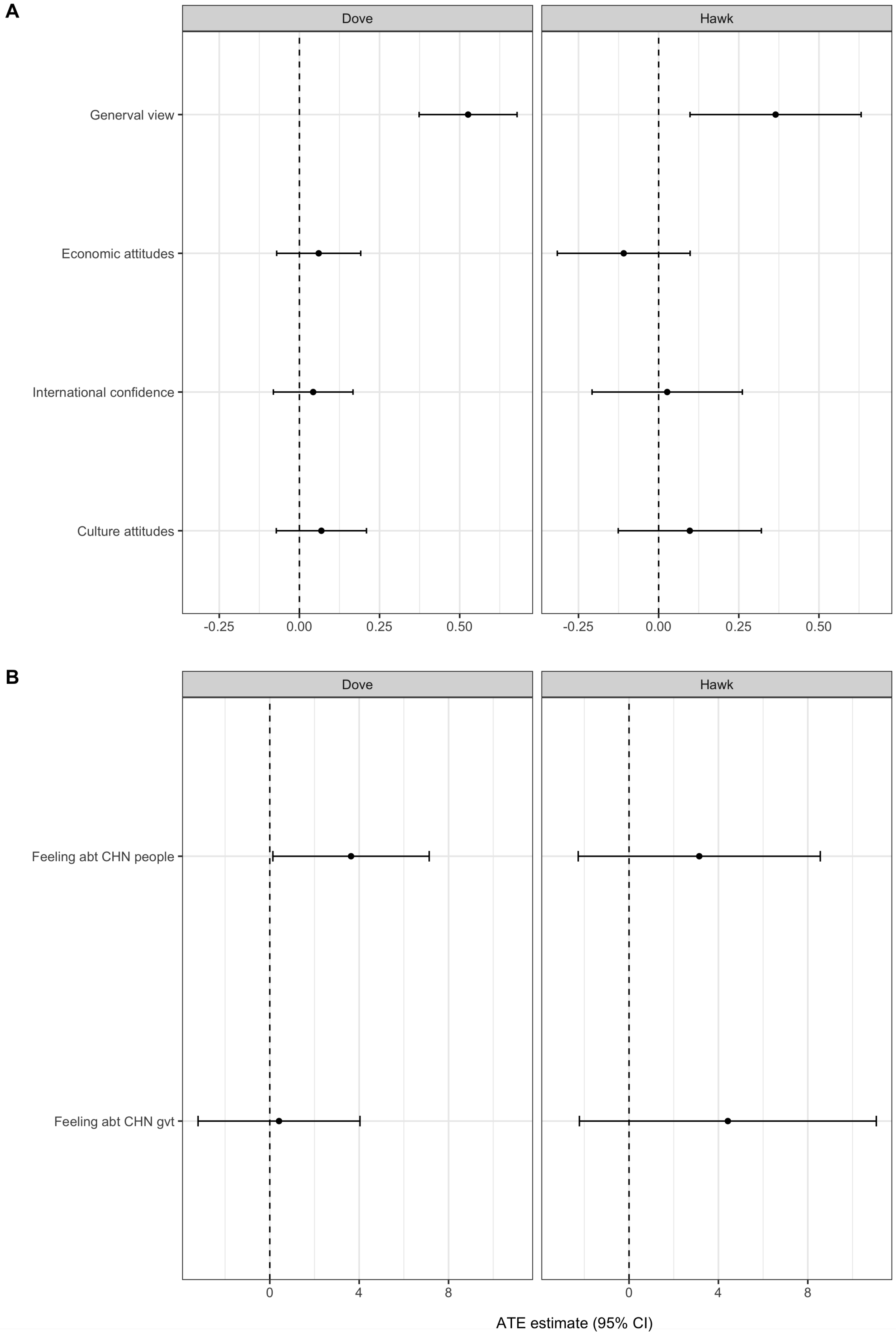


Table 3.3: Balance Check for Hawks and Doves

	Hawks	Doves	SD_diff	SD_diff (pooled)	P-value
Gender	0.42	0.47	-11.41	-11.34	0.09
Income	10.32	10.12	4.94	5.02	0.46
Race	1.56	1.63	-5.48	-5.42	0.42
Edu	11.66	11.42	17.31	17.54	0.01
Age	4.54	4.53	0.26	0.26	0.97
Party	3.07	2.41	49.20	52.25	0.00
Ideology	3.26	2.51	66.93	68.17	0.00

Table 3.3 presents the mean values and t-test results for hawkish and dovish participants. The results suggest that hawks and doves differ in terms of their demographic characteristics, with 42% and 47% of males in the hawkish and dovish groups, respectively, and hawks having a higher education level. In terms of partisanship and ideology, hawks show a stronger tendency toward the Republican Party, which is consistent with the findings of Kertzer and Zeitzoff (2017).

Figure 3.4 shows the results of a subgroup analysis. Based on a pre-treatment question about international orientation, I divided the participants into two categories: hawks and doves. Doves prioritize peace and stability and prefer diplomatic and nonviolent conflict resolutions. Hawks prioritize strength and security and are willing to use military force to achieve their goals (Schultz 2005). Among my participants, there are 737 doves and 313 hawks. A hawkish or dovish preference may affect people's attitudes toward China, as hawkish people may be more aggressive and hostile toward China, while dovish people might prefer a more peaceful Sino-US relationship.

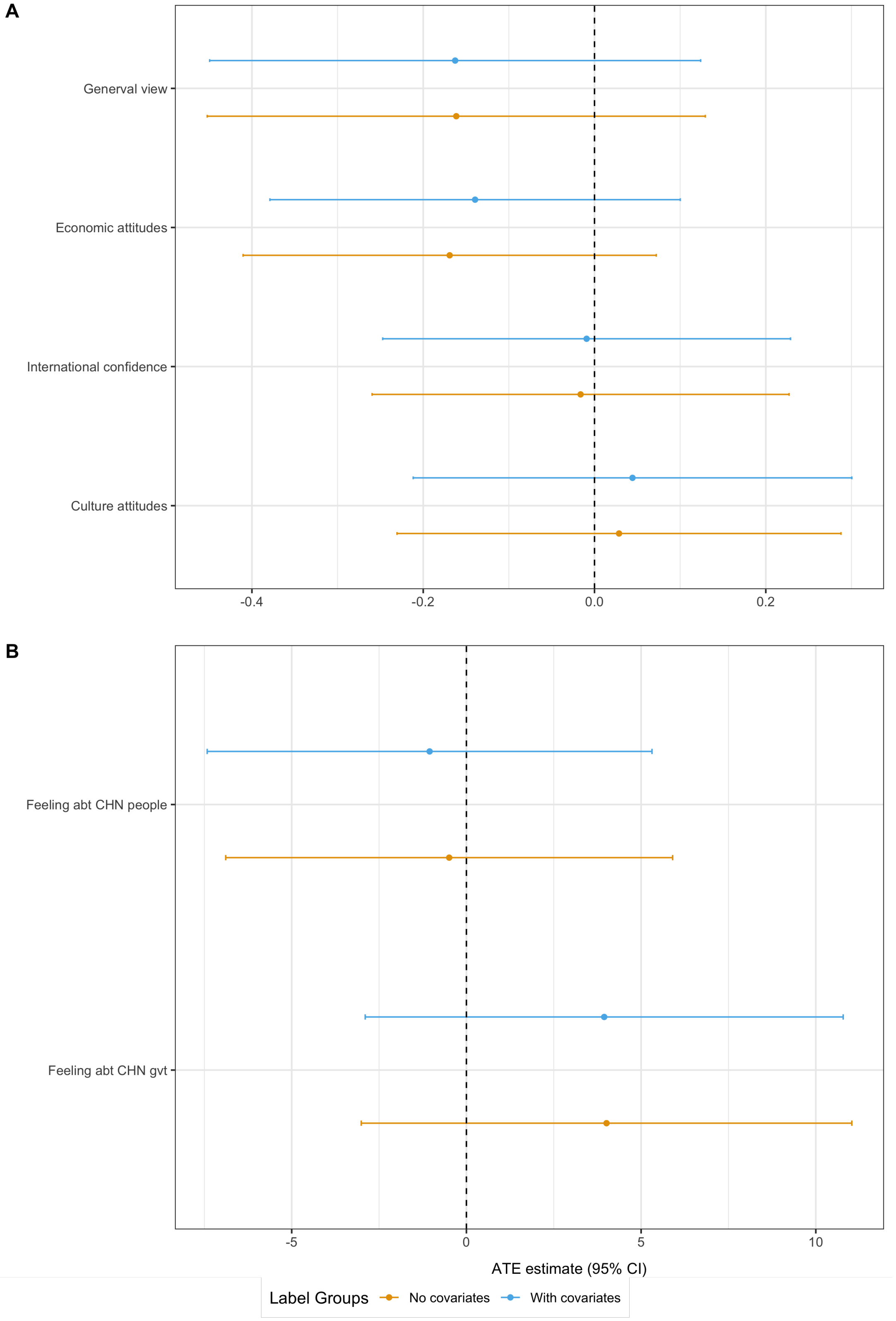
Figure 3.4 presents the ATEs of Li Ziqi's tweets, categorized by their international orientations. Panel A of the results indicates that treatment exposures had a greater impact on dovish individuals compared to hawkish individuals. For both dovish and hawkish participants, Li Ziqi's tweets had a significant and positive effect on the their general view of China. The findings pertaining to the feeling-thermometer questions are illustrated in Panel B. The results suggest that hawkish individuals were not noticeably affected by the treatments in terms of their attitudes towards the Chinese people and government. In contrast, dovish individuals exhibited a significantly more favorable sentiment towards the Chinese people when exposed to tweets from Li Ziqi.

The findings suggest that Li Ziqi's tweets had a significant impact on both hawkish and dovish participants' general views about China. However, only dovish individuals experienced a significant shift in their feelings towards Chinese people. Notably, no discernible differences were observed in the attitudinal variables between the two groups. To formally examine whether the effects of Li Ziqi's tweets on participants' perceptions of China differed between hawks and doves, I used a regression model

$$Y = \beta_1 \cdot Treatment + \beta_2 \cdot Hawk\_dove + \beta_3 \cdot Treatment \cdot Hawk\_dove + \epsilon$$

Where Y is the attitudinal variable and the coefficient β_3 on the interaction term represents the difference in treatment's effects between hawkish and dovish participants. Figure 3.5 illustrates the disparities in the effects of Li Ziqi's tweets on variables related to perceptions of China between hawks and doves. The results indicate that with or without covariates, there were no significant differences between hawks and doves in any of the variables.

Figure 3.5: Differences in ATEs on Attitudinal Variables Between Hawks and Doves



3.7 Discussion

In summary, this study yields four key conclusions. First, as a treatment, Li Ziqi's Twitter content can significantly shape a positive overall view of China and improve participants' feelings about Chinese people, but the tweets have no significant effects on more specific attitudes on China, including economic relationship or China's international role, and it has no significant effect on attitudes toward the Chinese government.government. Second, official endorsement from the local government does not weaken or strengthen the persuasiveness of Li Ziqi's content. Third, the analysis of people's international orientations on diplomatic style reveals that after being exposed to Li Ziqi's tweets, dovish people showed a significantly warmer attitude towards Chinese people, but hawkish people did not. Fourth, a formal test of the difference between hawks and doves on the treatment effects shows that their responses did not differ significantly, suggesting that international orientation is not a main factor determining the effects of public diplomacy messages.

This study contributes to the field of public diplomacy research by providing new empirical insights into the impacts of nongovernmental public diplomacy. The previous research has investigated how the nongovernmental public diplomacy works, mostly focusing on what content the social media influencer posts (Aslan Ozgul et al. 2022, Highhouse 2022, Whyke, Chen and Lopez-Mugica 2022), the paper asks a complementary question: how much do those nongovernmental public diplomacy efforts contribute to the construction of national image? By analyzing the effects of Li Ziqi's Twitter content, the paper confirms the previously unverified impression that nongovernmental public diplomacy is effective to some extent. It is worth noting that these nongovernmental public diplomacy messages are effective in general topics, such as overall views about China and feelings about Chinese people, but not in specific issue topics like China's international role and whether support China's economic development. Logically, these findings align with the effects of nongovernmental public diplomacy. As nonofficial content is mostly unrelated to politics, it is not supposed to change people's thoughts or beliefs on specific issues. Instead, such content, especially that related to culture, is meant to be attractive and favorable, thus likely to create a positive impression of the sending country.

Future research can not only investigate the effects of nongovernmental public diplomacy but also compare them to governmental public diplomacy. For instance, a governmental public diplomacy group focusing on cultural promotion content could be included in a similar experiment, enabling a more direct comparison between the impacts of governmental and nongovernmental public diplomacy. This would help us gain a better understanding of which public diplomacy approach, whether governmental or nongovernmental, is more effective in shaping a national image.

his paper not only contributes to academic research but also has valuable policy implications. The findings suggest that some nongovernmental actors are more effective at implementing public diplomacy than their governmental counterparts, and individuals voluntarily creating and sharing cultural content can have a greater impact on shaping a country's image than government-funded public diplomacy programs costing billions of dollars.. Therefore, countries should explore their cultural resources and encourage domestic influencers to promote local traditions and features on social media platforms to attract audiences.

The study also highlights the significant influence of successful social media influencers in shaping a country's image. Their voices can reach far and wide, making them a powerful tool for national branding. For example, China has recently utilized social media influencers such as Raz Gal-Or and Gweilo 60 to endorse the country's achievements and showcase its friendliness, as demonstrated in their visit to Xinjiang. As social media users, we should be aware of the potential impact of these influencers on our perspectives and beliefs.

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3.8 Appendix

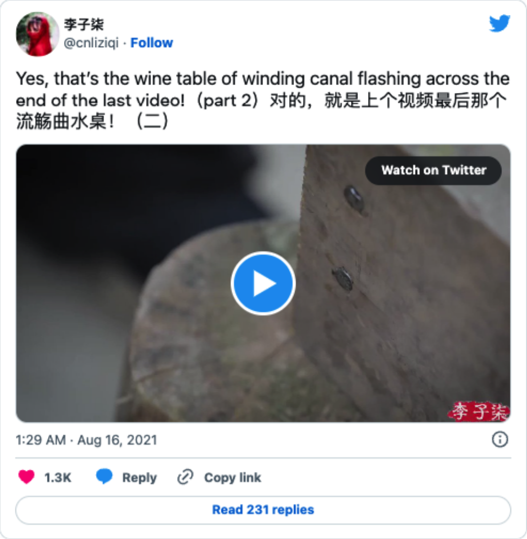
Table 3.4: ATEs of three treatment groups on public opinion variables

Variables	Groups	Estimate	Std.error	p.value
General view	CGTN group	0.13	0.08	0.10
General view	Li Ziqi group	0.48	0.08	0.00
General view	Li Ziqi group w/ endorse	0.48	0.08	0.00
Perceived economic expansion	CGTN group	-0.00	0.08	0.97
Perceived economic expansion	Li Ziqi group	-0.08	0.08	0.30
Perceived economic expansion	Li Ziqi group w/ endorse	-0.02	0.08	0.79
Perceived CHN threat	CGTN group	0.09	0.08	0.26
Perceived CHN threat	Li Ziqi group	-0.05	0.08	0.55
Perceived CHN threat	Li Ziqi group w/ endorse	-0.00	0.08	0.96
Perceived CHN influence	CGTN group	-0.01	0.04	0.78
Perceived CHN influence	Li Ziqi group	0.02	0.04	0.67
Perceived CHN influence	Li Ziqi group w/ endorse	-0.02	0.04	0.63
Economic attitudes	CGTN group	0.01	0.06	0.83
Economic attitudes	Li Ziqi group	-0.04	0.07	0.54
Economic attitudes	Li Ziqi group w/ endorse	0.07	0.07	0.31
International confidence	CGTN group	0.03	0.06	0.60
International confidence	Li Ziqi group	0.04	0.07	0.53
International confidence	Li Ziqi group w/ endorse	0.04	0.07	0.59
Culture attitudes	CGTN group	0.07	0.07	0.30
Culture attitudes	Li Ziqi group	0.04	0.07	0.56
Culture attitudes	Li Ziqi group w/ endorse	0.12	0.07	0.09
Feeling abt CHN people	CGTN group	4.45	1.67	0.01
Feeling abt CHN people	Li Ziqi group	2.77	1.72	0.11
Feeling abt CHN people	Li Ziqi group w/ endorse	4.41	1.71	0.01
Feeling abt CHN gvt	CGTN group	3.42	1.87	0.07
Feeling abt CHN gvt	Li Ziqi group	0.91	1.93	0.64
Feeling abt CHN gvt	Li Ziqi group w/ endorse	2.26	1.92	0.24

Table 3.5: ATEs of three treatment groups by hawk/dove

Variables	Groups	Estimate	Std.error	p.value	Orientation
General view	CGTN group	-0.05	0.15	0.72	Hawk
General view	Li Ziqi groups	0.36	0.14	0.01	Hawk
Perceived economic expansion	CGTN group	-0.00	0.15	0.98	Hawk
Perceived economic expansion	Li Ziqi groups	-0.02	0.14	0.89	Hawk
Perceived CHN threat	CGTN group	0.25	0.13	0.05	Hawk
Perceived CHN threat	Li Ziqi groups	0.11	0.12	0.33	Hawk
Perceived CHN influence	CGTN group	-0.02	0.08	0.75	Hawk
Perceived CHN influence	Li Ziqi groups	-0.04	0.07	0.58	Hawk
Economic attitudes	CGTN group	-0.12	0.11	0.28	Hawk
Economic attitudes	Li Ziqi groups	-0.11	0.10	0.29	Hawk
International confidence	CGTN group	0.01	0.13	0.95	Hawk
International confidence	Li Ziqi groups	0.03	0.12	0.82	Hawk
Culture attitudes	CGTN group	0.09	0.13	0.46	Hawk
Culture attitudes	Li Ziqi groups	0.10	0.11	0.39	Hawk
General view	CGTN group	0.21	0.09	0.02	Dove
General view	Li Ziqi groups	0.53	0.08	0.00	Dove
Perceived economic expansion	CGTN group	-0.00	0.09	0.99	Dove
Perceived economic expansion	Li Ziqi groups	-0.07	0.08	0.39	Dove
Perceived CHN threat	CGTN group	0.01	0.10	0.93	Dove
Perceived CHN threat	Li Ziqi groups	-0.08	0.09	0.37	Dove
Perceived CHN influence	CGTN group	-0.01	0.05	0.92	Dove
Perceived CHN influence	Li Ziqi groups	0.01	0.04	0.76	Dove
Economic attitudes	CGTN group	0.08	0.08	0.29	Dove
Economic attitudes	Li Ziqi groups	0.06	0.07	0.37	Dove
International confidence	CGTN group	0.05	0.07	0.52	Dove
International confidence	Li Ziqi groups	0.04	0.06	0.49	Dove
Culture attitudes	CGTN group	0.06	0.08	0.43	Dove
Culture attitudes	Li Ziqi groups	0.07	0.07	0.34	Dove
Feeling abt CHN people	CGTN group	3.33	3.07	0.28	Hawk
Feeling abt CHN people	Li Ziqi groups	3.14	2.77	0.26	Hawk
Feeling abt CHN gvt	CGTN group	4.06	3.85	0.29	Hawk
Feeling abt CHN gvt	Li Ziqi groups	4.42	3.48	0.20	Hawk
Feeling abt CHN people	CGTN group	5.05	1.95	0.01	Dove
Feeling abt CHN people	Li Ziqi groups	3.64	1.73	0.04	Dove
Feeling abt CHN gvt	CGTN group	3.13	2.09	0.13	Dove
Feeling abt CHN gvt	Li Ziqi groups	0.41	1.85	0.82	Dove

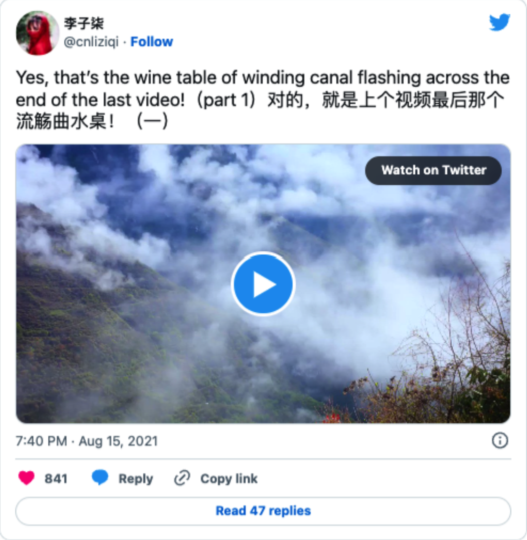
Figure 3.6: Li Ziqi’s tweets (1-3)


李子柒
@cnliziqi · Follow

Yes, that’s the wine table of winding canal flashing across the end of the last video!（part 2）对的，就是上个视频最后那个流觞曲水桌！（二）

1:29 AM · Aug 16, 2021

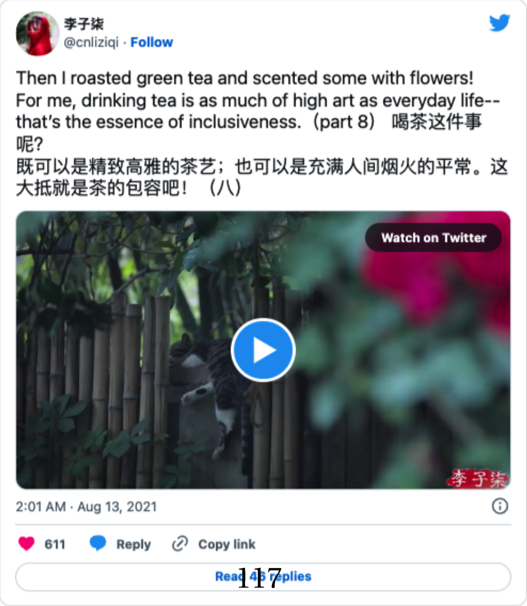
Watch on Twitter
李子柒
1.3K
Reply
Copy link
Read 231 replies


李子柒
@cnliziqi · Follow

Yes, that’s the wine table of winding canal flashing across the end of the last video!（part 1）对的，就是上个视频最后那个流觞曲水桌！（一）

7:40 PM · Aug 15, 2021

Watch on Twitter
841
Reply
Copy link
Read 47 replies

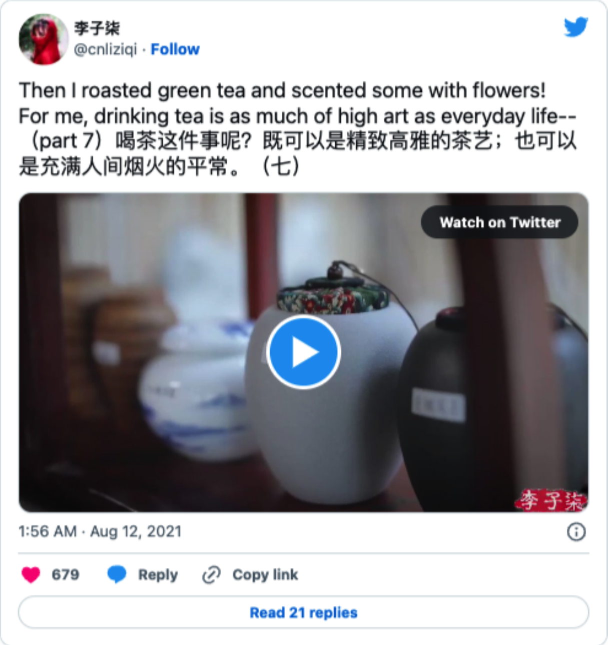

李子柒
@cnliziqi · Follow

Then I roasted green tea and scented some with flowers! For me, drinking tea is as much of high art as everyday life--that’s the essence of inclusiveness.（part 8）喝茶这件事呢?
既可以是精致高雅的茶艺；也可以是充满人间烟火的平常。这大抵就是茶的包容吧！（八）

2:01 AM · Aug 13, 2021

Watch on Twitter
李子柒
611
Reply
Copy link
Read 46 replies

Figure 3.7: Li Ziqi's tweets (4-6)

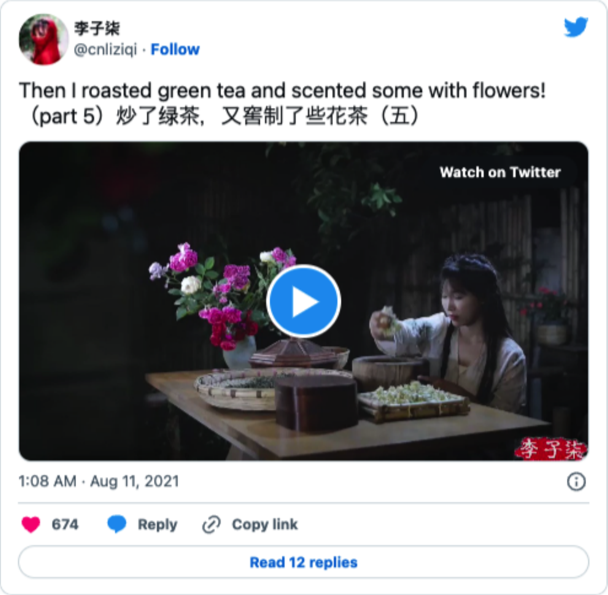


李子柒
@cnliziqi · Follow

Then I roasted green tea and scented some with flowers! For me, drinking tea is as much of high art as everyday life--（part 7）喝茶这件事呢？既可以是精致高雅的茶艺；也可以是充满人间烟火的平常。（七）

1:56 AM · Aug 12, 2021

Watch on Twitter
李子柒
679
Reply
Copy link
Read 21 replies

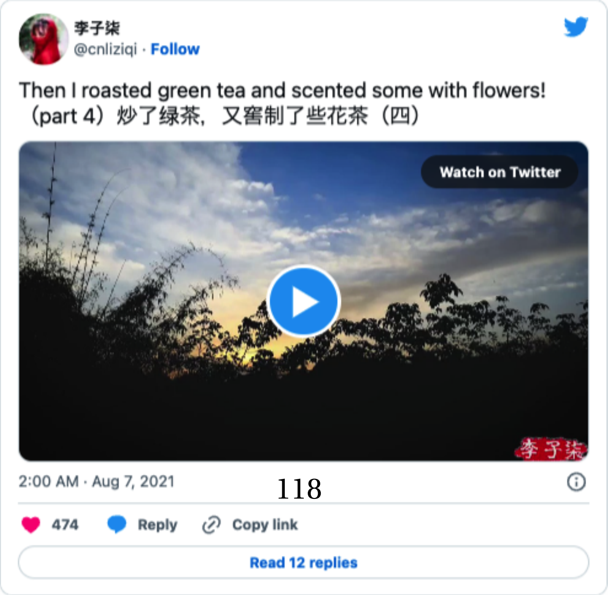


李子柒
@cnliziqi · Follow

Then I roasted green tea and scented some with flowers!（part 5）炒了绿茶，又窨制了些花茶（五）

1:08 AM · Aug 11, 2021

Watch on Twitter
李子柒
674
Reply
Copy link
Read 12 replies

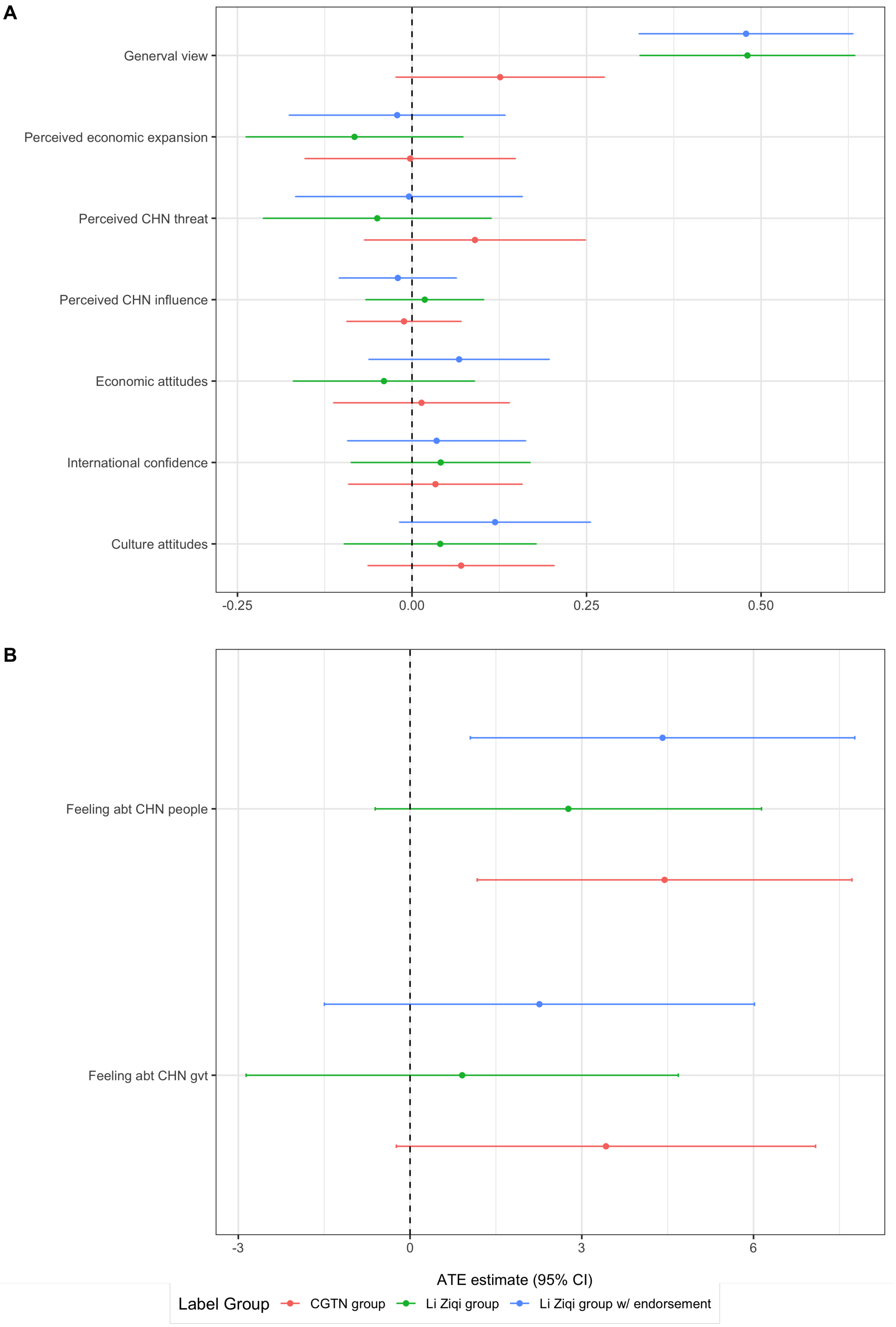


李子柒
@cnliziqi · Follow

Then I roasted green tea and scented some with flowers!（part 4）炒了绿茶，又窨制了些花茶（四）

2:00 AM · Aug 7, 2021

Watch on Twitter
李子柒
474
Reply
Copy link
Read 12 replies

Figure 3.8: ATEs of three treatment groups on public opinion variables