# Chinese Propaganda Persuades a Global Audience That the "China Model" is Superior: Evidence From A 19-Country Experiment\*

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#### **Abstract**

Many are skeptical of the appeal of authoritarian political systems. By contrast, we argue that a global audience will embrace authoritarian models when they believe that autocracies can meet governance challenges better than democracies. We conduct a randomized experiment in 19 countries across 6 continents exposing a global audience to real messages from the Chinese and American governments' external media arms. We also collect comprehensive data on the Chinese and American government's external propaganda. Our experiment shows that exposure to a representative set of Chinese messages strengthens perceptions that the CCP delivers growth, stability, and competent leadership. It also triples the proportion of respondents who think the Chinese system is superior to the American system, from 16 to 54 percent. In head-to-head match-ups, messages from the U.S. government are less persuasive. Our findings show how autocracies build global support by selling growth and competence, with important implications for democratic resilience.

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In recent years, authoritarian regimes — most notably Russia and China — have attempted to undermine global norms favoring liberal democracy (Hyde 2020). Scholars are divided about whether an autocracy like China or Russia can effectively sell the merits of non-democratic political and economic systems. For example, Way (2016, p. 64) argues that Russian autocracy promotion "presents a less serious challenge than is often assumed" because autocracy lacks the "crosscultural appeal" of democracy. Similarly, Weiss (2019, p. 93) argues that the Chinese Communist Party "has promoted... a parochial vision of national rejuvenation that has little international appeal." On the other hand, Repnikova (2022a) argues that in the developing world "many embrace China's story of economic success and the idea of a shared developmental trajectory while also voicing support for values they associate with the United States, such as human rights and democratic freedoms." However, there is relatively little cross-national empirical evidence about whether authoritarian governments can effectively build global support for authoritarian political systems.

In this article, we use experiments replicated across 19 countries in 6 continents to examine how external propaganda from China and the United States changes public opinion towards the desirability of democratic and authoritarian political systems. We examine real messages from the China Global Television Network (CGTN), a state-sponsored news channel which broadcasts in seven languages across six continents, has 1.8 billion YouTube videos, and has more Facebook likes than Fox News, MSNBC, and CNN combined. As our data on tens of thousands of CGTN segments show, messages from CGTN frequently attempt to build global public support for the legitimacy of authoritarian political systems like China's. We also examine messaging from the U.S. Department of State, which spends billions per year on public diplomacy intended to shape global public opinion.

Despite skepticism about the ability of China to sell its political and economic model, and optimism about the inherent appeal of democracy, we show that Chinese propaganda promoting its system to a global audience are strikingly successful — indeed, we find that viewing real Chinese propaganda doubles support for China's political and economic models, causing a majority of

<sup>&</sup>lt;sup>1</sup> See Repnikova (2022*b*, pp. 23-30) and DiResta et al. (2020, p. 9).

citizens to prefer China's authoritarian model over the American democratic model. Moreover, in head-to-head match-ups with American messaging, global audiences move towards China.

We theorize that global audiences find authoritarian political systems appealing when propaganda reveals credible information about competent governance by non-democratic states. In general, citizens across different countries may support democratic values such as the right to free speech, voting for national leadership, and alternation of power between competing parties. However, in an era of democratic backsliding, when assessing the merits of political systems, global audiences also put considerable weight on competent government performance, such as promoting economic growth, policy responsiveness, and stability. As a result, messages that focus on the performance of authoritarian regimes on key governance outcomes can move audiences towards preferring authoritarian models over democratic ones.

We survey citizens of 19 countries that represent a diverse range of contexts, from low income countries like Kenya to high income countries like Singapore, from democracies like Canada to authoritarian regimes like Saudi Arabia, and from countries where China's leadership is popular, like Nigeria, to places where China's leadership is unpopular, like Australia. Our pre-registered experiment uses real foreign-facing media content from the United States and Chinese governments. We randomly assign respondents to one of four arms: a placebo group, a Chinese messaging group, an American messaging group, or a competition arm in which respondents receive both Chinese and American messaging. We test many videos in each arm, and use observational data of over 20,000 propaganda videos from the Chinese and American governments to demonstrate that the specific treatments we use draw on common messaging strategies for each regime. In each case, we prominently label the source of each message as being the Chinese or American government.

This experimental design allows us to answer three important questions about whether the actual media used by authoritarian and democratic governments build support for authoritarianism or democracy. First, does foreign-facing media from authoritarian regimes increase global support for authoritarian political and economic models? We find that across all six continents we surveyed, real Chinese media that uses typical Chinese messaging strategies increased support for

adopting China's political and economic models and for embracing China's global leadership. This dynamic is especially notable since the global public begins with largely negative views of China. In the placebo arm, only 16 percent of respondents prefer the Chinese political model over the American model. However, after viewing Chinese media, the proportion preferring the Chinese political model more than triples, to 54 percent. Chinese media makes especially striking gains among citizens in Africa and Latin America, two regions that, perhaps not coincidentally, have been the central focus of China's global media outreach (Repnikova 2022b, p. 22). Consistent with our theorized channel, messages are especially effective at persuading audiences of Chinese government performance, and less so on persuading audiences that the Chinese system is democratic. These findings suggest that the recent downturn in global public opinion towards China is not permanent, and could be reversed given sufficient exposure to Chinese government messaging about the performance of its authoritarian model.

Second, does foreign-facing media from democratic regimes effectively increase global support for democratic models? We find that American messages modestly increase support for America's democratic and economic system and for American global leadership. Our data, consistent with other global surveys, show that in 2022, the United States is at baseline much more popular than China. In the placebo group, 84 percent of citizens prefer the American system over the Chinese. Messages from the United States are successful at increasing the American advantage even further. Exposure to American government messages grows support for the American political system 8 percentage points. Still, as the United States begins with a strong advantage, ceiling effects likely limit the degree to which American media can move respondents.

Finally, do competing messages from democratic and authoritarian regimes turn global audiences towards one or another system? Our findings suggest that audiences find Chinese messaging about the merits of the China model in aggregate more persuasive than American messaging about the merits of democracy. Citizens who receive one message from the United States government and one from the Chinese government move towards China: the proportion preferring the Chinese system over the American model grows by six percentage points. We show that when competing

with American messaging, Chinese messaging is effective because it persuades global audiences of the high performance of the Chinese government.

These findings contribute to a growing body of work on how influence operations by authoritarian regimes shape global public opinion. Public opinion is recognized as being important for key outcomes in international relations such as alliance formation and decisions about the use of military force (Kertzer and Zeitzoff 2017; Tomz and Weeks 2020a, 2021; Tomz, Weeks and Yarhi-Milo 2020; Incerti et al. 2021). A consistent theme in existing research is that influence operations from authoritarian regimes seek to divide audiences along domestic partisan lines and erode confidence in democracy (Tomz and Weeks 2020a; Golovchenko et al. 2020; Bush and Prather 2020; Elshehawy et al. 2021; Goodman 2022). This line of research does not generally address the question of whether, in addition to eroding support for democracy, foreign-facing media can build popular support for authoritarian political models. Other research has found mixed results about Chinese efforts to shape public opinion in its favor. For example, research shows that Confucius Institutes increase Chinese popularity and "soft power" in some contexts, but can backfire in others (Brazys and Dukalskis 2019; Green-Riley 2022; Repnikova 2022c). Building on these two streams of research, we turn to the question of whether efforts to explicitly sell the merits of an authoritarian system through external propaganda build support for autocratic models. We find that Chinese propaganda persuades a global audience that the China model provides growth, stability, and competent leadership, and is superior to American democracy. This method of building support for the Chinese political system is a key way in which China makes the world "safe for autocracy" (Weiss 2019).

# 1 How Does External Propaganda Shape Global Attitudes Towards Autocracy and Democracy?

Global public opinion is an important force in international politics. Public opinion towards foreign powers influences whether nations can establish military bases abroad, which is crucial for military power projection (Calder 2010; Cooley 2012; Allen et al. 2020). Public opinion also shapes

how politicians make decisions about the use of military force (Goldsmith and Horiuchi 2012; Tomz, Weeks and Yarhi-Milo 2020). This dynamic underlies Joseph Nye's observation that "soft power" — or "the ability to get what you want through attraction rather than coercion or payments" (Nye Jr 2004, p. x) — can be as important in international relations as hard power resources, such as military and economic might. However, existing work provides unclear and at times conflicting expectations about whether external propaganda can build support for authoritarian political systems and undermine support for democratic models.

Generally, the literature shows that when forming opinions about foreign affairs, the public draws on information from political elites, other citizens, and the behavior of foreign states. Classic work in international relations saw public opinion as easily manipulated by political elites (e.g. Almond 1950). There is compelling evidence that citizens take cues from political leaders — for example, elites in the Middle East strategically inflame anti-American sentiment when it benefits them in domestic politics (Blaydes and Linzer 2012). However, recent work shows that citizens are not simply led by political elites on international affairs. Instead, citizens' personal moral values guide how they process information and make judgments about foreign affairs (Kertzer et al. 2014). For instance, citizens are more likely to back wars and economic sanctions against human rights violators (Tomz and Weeks 2020b; Green-Riley, Kruszewska-Eduardo and Fu 2021). Moreover, the public much prefers to join an alliance when fighting wars (Tomz and Weeks 2021). Finally, citizens draw on signals from their peers, not just elites, when forming attitudes about foreign affairs (Kertzer and Zeitzoff 2017).

In addition, citizens form foreign policy attitudes based on information from public diplomacy and foreign aid. High-level visits from political leaders and diplomats can lead to increased support for that country's foreign policy and leadership (Goldsmith and Horiuchi 2009; Goldsmith, Horiuchi and Matush 2021). Public outreach by diplomats through social media promoting friendship and aid can also improve attitudes towards that country (Mattingly and Sundquist 2022). In addition, there is growing evidence that countries that supply foreign aid are rewarded with increased popularity in the countries they target (Goldsmith, Horiuchi and Wood 2014; Dietrich, Mahmud

and Winters 2018). However, China may be an exception to this, as proximity to Chinese-funded infrastructure projects is correlated with dimmer views of China (Blair, Marty and Roessler 2022).

However, not all influence operations are intended to build support through aid and friendship — influence operations can also aim to polarize citizens, spread disinformation, support antidemocratic politicians, and weaken support for democratic political systems. Existing research on foreign influence operations generally highlights how interference in elections polarizes citizens in democracies along partisan lines. This recent literature shows that outside powers have strong incentives to intervene in democratic elections (Bubeck and Marinov 2017). This interference tends to be partisan: Russian propaganda efforts, for instance, generally intervene to support one candidate over another, usually favoring a populist or anti-democratic candidate (Golovchenko et al. 2020; Elshehawy et al. 2021). Citizen reactions differ by whether the interference favors their preferred party or the rival. When electoral interference harms the citizens preferred party and benefits an opponent, they become more willing to condemn interference (Tomz, Weeks and Yarhi-Milo 2020), less optimistic about democracy (Tomz, Weeks and Yarhi-Milo 2020), less trusting of the quality of elections (Bush and Prather 2022), more politically active (Goodman 2022), and less supportive of close relations and economic engagement with the external actor (Corstange and Marinov 2012; Bush and Prather 2020). When interference favors their own party, however, citizens may be indifferent to foreign interference or even support it. On balance, however, this work does not provide clear theoretical expectations for the persuasiveness of propaganda that does not seek to intervene in domestic partisan politics but instead seeks to sell the merits of non-democratic political systems.

Existing scholarship on influence operations by China provides conflicting evidence about the likely effectiveness of Chinese propaganda efforts through traditional and social media. On the one hand, Brazys and Dukalskis (2019) show that spread of Confucius Institutes is correlated with more positive media coverage of China and more positive individual attitudes towards the PRC. Recent work by Repnikova (2022c) shows how the language and cultural training offered by Confucius Institutes are "enticing" to an East African audience, although she cautions that

maintaining the appeal of these programs may be challenging in the long run. By contrast, Green-Riley (2022) shows how in the United States, exposure to Confucius Institute language training led to a significant backlash against China among high school students. When placed next to each other, these findings suggest that China's attempts to mold global public opinion in its favor through Confucius Institutes, may, like American attempts to promote democracy, succeed in some contexts and fail in others.<sup>2</sup>

Moreover, scholarship on domestic-facing propaganda, which aims to influence local audiences, also leaves unclear expectations for when foreign-facing propaganda will be effective. The effectiveness of domestic-facing propaganda is theorized to rely on the threat of repression (Huang 2015), on control over competing sources of information (Pan, Shao and Xu 2022), on appeals to domestic nationalism (Mattingly and Yao 2022), on international crises (Weiss and Dafoe 2019) and on domestic economic performance (Rozenas and Stukal 2019). The aims of such propaganda may be to persuade or to demobilize and distract (King, Pan and Roberts 2017; Lu and Pan 2021; Stukal et al. 2022). However, foreign-facing propaganda cannot necessarily rely on these factors to shape behavior and attitudes. After all, foreign authoritarian regimes are unlikely to be able to repress, control the media environment, or to effectively inflame nationalism when seeking to convince audiences in foreign nations of the potential merits of non-democratic systems.

Importantly, prior studies do not directly examine the question whether foreign-facing media efforts by authoritarian states effectively sell the merits of autocracy to an international audience. As media outlets like CGTN and Russia Today seek to increase the global legitimacy of authoritarianism, and undercut faith in democracy, understanding whether these efforts succeed has important implications for democratic resilience.

# 2 Theory and Hypotheses: How Competent Government Sells Authoritarianism

Some scholars argue that foreign audiences find authoritarian political models unappealing because of widespread support for democratic values like freedom of speech. By contrast, we argue that

<sup>&</sup>lt;sup>2</sup> See also Bauer and Wilson (2022) who show a backlash to Chinese electoral interference in Taiwan.

non-democratic regimes can shift global attitudes in favor of authoritarian models by portraying autocracies as capable of delivering on important governance outcomes like growth and stability. This strategy succeeds because when weighting the merits of different political systems, global audiences weigh both democratic values *and* government performance.

To be sure, when evaluating the merits of political systems, global audiences should care about their *democratic* character. In particular, global audiences value freedom of speech, meaningful multi-party political competition, and the ability to vote for their national leadership. This suggests that global audiences may generally prefer democratic systems over authoritarian systems.

However, at the same time, when assessing the merits of national systems, we hypothesize that global audiences also weigh government performance. Importantly, government performance should not be limited to political performance, and we expect that audiences care about whether governments can successfully shepherd economic growth, whether they provide social stability, whether they are responsive to citizen demands, and whether they select competent political leaders.<sup>3</sup> Accordingly, authoritarian regimes that can credibly convey the message that their system performs well and "delivers the goods" can potentially shape global opinion in their favor, even if audiences do not favor other elements of authoritarian rule.

Our first hypothesis (H1) is that propaganda from non-democratic regimes will build global support for authoritarian political and economic models. In particular, we expect that exposure to messages from China's external propaganda apparatus that extol high Chinese government performance will build support for China's economic and political model. For example, when the Chinese government advertises their ability to foster growth, the legitimacy of China model may increase, while improved perceptions of CCP responsiveness, competence, and stability may also improve perceptions of the Chinese model.

Are propaganda efforts from democratic regimes also persuasive? Prior research has highlighted how audiences place importance on democratic values such as freedom of expression

<sup>&</sup>lt;sup>3</sup> Krishnarajan, Doucette and Andersen (2022) recently provide empirical support for the theoretical intuition that individuals in autocratic regimes tend to increase their relative support for autocracy if they have positive experience that autocratic regimes performed well economically. We extend this to foreign audiences.

and freedom of speech (Kertzer et al. 2014; Tomz and Weeks 2020*b*; Green-Riley, Kruszewska-Eduardo and Fu 2021). Our second hypothesis (H2) is that messages from democratic countries like the United States should, in isolation, persuade audiences of the superiority of democratic political systems.

Do audiences find messages from authoritarian or democratic regimes more persuasive? In the real world, audiences are exposed to messages from multiple sources and must sort out on their own which they find the most persuasive. Given America's longstanding role as a global leader, global audiences are likely to have been frequently exposed to information about America's civil liberties and economic performance. However, exposure to new information about China may make audiences more likely to update their prior beliefs. Our third hypothesis (H3) is that when exposed to competing messages from democratic and authoritarian countries, global audiences will move towards preferring the autocratic model.

Where will efforts to sell authoritarian models be most likely to succeed? We argue that China's economic performance, stability, and responsiveness are most likely to be appealing in the developing world, where as Repnikova (2022a) notes, citizens may hope that their country shares the same "trajectory" of economic success as China. Hence, our fourth hypothesis (H4) is that propaganda from authoritarian regimes will be most successful in developing regions.

To help adjudicate H4, we survey developing countries in Africa and Latin America, a mix of high and low-income countries in Asia, and wealthier nations in North America, Europe, and the Middle East. (The survey is introduced in more detail below.) We expect to find that authoritarian messaging will be most successful in Africa and Latin America, where the promise of a "shared developmental trajectory" with China is most appealing.

Why do these efforts succeed? Our fifth hypothesis (H5) is that Chinese messaging provides new information to audiences about government performance, and so will be especially effective at improving perceptions of Chinese government *performance* and less effective at improving perceptions of Chinese government's *democratic* character. Global audiences exposed to China's external propaganda will find the Chinese system to be better at providing social stability, at responding to

citizen demands, at selecting competent leadership, and delivering economic growth, all of which are emphasized in China's external propaganda messaging. Propaganda messaging will be less effective at persuading audiences that the Chinese system is in some sense democratic. By contrast, American messaging will be more likely to persuade audiences of the democratic character of the American political system.

# 2.1 Limits and Scope Conditions

Our theory has a number of limits and scope conditions. First, a study on global attitudes towards the legitimacy of the Chinese political system is silent on the question of whether it is practically possible to export China's authoritarian model. A common argument is that "neither China's economic nor its political model is well suited for export" (Weiss 2019, p. 94). This may very well be the case. Nevertheless, China does seek to sell the idea of the China model; by increasing the legitimacy of China's system in the eyes of a global audience, it makes the world "safe for autocracy" and helps China reach foreign policy goals, even if it may not directly be intended to spread autocracy.

Second, we do not propose that there is in reality a conceptually coherent "China model." Scholarship rightly points to the fact that China's economic system is diverse and varies from locale to locale (e.g. Ang 2016). Nevertheless, China's foreign-facing media does explicitly promote a "China model" and we are interested in whether these efforts are successful, and shape global perceptions of China's economic and political system — even if external propaganda and public perception over-simplifies the messy reality of China's domestic politics and economy.

Third, the effectiveness of this strategy may be limited to authoritarian regimes that can credibly point to governance successes. China's recent economic successes may make it a somewhat unique case compared to other major autocracies. It is less clear whether countries like Russia or Saudi Arabia could successfully adopt the same strategy. Moreover, if the Chinese economic model falters, this strategy may not be as effective for China in the future.

Fourth, although we study competition between China and the United States, audiences may

find American democracy less appealing than other democratic models. In recent years, America's domestic politics has been marked by policy gridlock and events such as the January 6th insurrection. This may make Chinese criticisms of liberal democracy, which focus on it being chaotic and ineffective, work especially well when the target is the United States. Our study may thus represent an upper bound for the effectiveness of Chinese messaging about the defects of democracy. However, comparing China's model to the U.S. should be the most politically relevant question for understanding international politics today.

Finally, we do not explore the effect of propaganda on Chinese or American audiences, although we think it is less likely that one great power's propaganda would considerably shift the other's public opinion. <sup>4</sup> Nor do we explicitly forecast the longevity of Chinese and American propaganda to determine how long its effects will endure. Considering that some critics have doubted the sustainability of soft power in some cases including China (Fan 2008; Kurlantzick 2009; Zhao 2009), it could also be worthwhile to examine whether the propaganda treatment effects have a lasting impact on global respondents' attitudes. We leave this topic as an interesting avenue of future research.

#### 3 Chinese and American Efforts to Promote Their Systems

Before examining our hypotheses, we first document how China and the United States promote their respective models, which informs our empirical strategy. To explore these questions, we begin with a qualitative overview of each country's strategy. Then, we analyze content from tens of thousands of videos from each country's external media arms to reach conclusions about popular messaging strategies. Our experimental design draws on some of the most popular messaging tropes from the Chinese and American governments, using real propaganda videos.

<sup>&</sup>lt;sup>4</sup> See Lim and Tanaka (2022) for the effect of the rivalry public on domestic public opinion.

#### 3.1 How Does China Promote the "China Model"?

Chinese leader Xi Jinping has noted that Chinese Communist Party (CCP) "attaches great importance to external communications" and seeks to win a global "public opinion struggle" (*yulun douzheng*). Under Xi, the CCP has increased its investment in overseas messaging. The Chinese government does not provide transparent breakdowns of its spending on foreign-facing media, but estimates by foreign researchers peg Chinese spending in the range of \$7 to \$10 billion dollars per year. By contrast, as discussed below, the U.S. government budget for foreign public broadcasting has been around \$800 million per year for the last five years.

China's foreign-facing media intends to reach a global audience with the primary goal of "telling the China story well" (*jianghao zhongguo gushi*). China's messaging strategy is in direct contrast to Russia's. Where Russian messaging attempts to "destabiliz[e] adversaries by covertly fomenting chaos within their borders, "Chinese messaging aims to "project... to the world a confident, inspirational image of the country and its leader" (DiResta et al. 2020, p. 3). The focus on using external media to provide a positive image of China, rather than to directly undermine the west, in part reflects a preoccupation with increasing Chinese "soft power" that began in the Hu Jintao administration (Repnikova 2022c). In contrast to views of soft-power as being generated from a bottom-up process, Chinese leaders see increasing its national soft power as "a state-driven, centrally organized endeavor" (Dukalskis 2021, p. 115).

China uses a "hybrid" approach to its foreign messaging that mixes traditional broadcast media with the use of social media to amplify messages. On the broadcast side, CGTN maintains dozens of field offices and broadcasts in seven languages across six continents (DiResta et al. 2020). CGTN maintains YouTube, Facebook, and Twitter accounts, as do other Chinese state-run media outlets including Xinhua News, China Daily, the People's Daily, and the Global Times. Altogether, these

<sup>&</sup>lt;sup>5</sup> Xinhua News. "During the 30th collective study of the Politburo, Xi Jinping emphasized strengthening and improving international communication work and showing a true and comprehensive picture of China" (习近平在中共中央政治局第三十次集体学习时强调加强和改进国际传播工作展示真实立体全面的中国). Xinhua News, June 1, 2021. Available at: https://web.archive.org/web/20210601072129/http://www.xinhuanet.com/politics/leaders/2021-06/01/c 1127517461.htm.

<sup>&</sup>lt;sup>6</sup> See Martin (2021, p. 213) and Brady (2015, p. 52).

five outlets have 3.7 billion views on YouTube alone. Posts on these channels frequently draw from CGTN and other state-run broadcasts.

#### 3.1.1 Observational Evidence on Chinese Messaging

What messages are commonly broadcast on China's external media outlets like CGTN? To systematically examine this question, we created a corpus of 19,791 CGTN segments posted on the broadcaster's YouTube channel. We focus on the text descriptions of the video content, which are generally one to four sentences long. Many segments are drawn directly from television broadcasts, although some appear to be created specifically for an internet audience. The videos that appear on the YouTube channel are also typically cross-posted on the company's Facebook page and on other social media outlets such as Twitter, Line, and WeChat.

To examine messaging content, we use a topic modeling approach, which has become a popular tool in studies of comparative politics and international relations (e.g. Roberts et al. 2014). We fit a Latent Dirichlet Allocation (LDA) model using 20 topics (please see the appendix for more details on model cross-validation and tuning). In the appendix we present results on all 20 topics (see Table A9). Based on a qualitative reading of the top 30 words for each topic, we manually combine topics into several clusters, including China's economic model, China's political model, international news, Chinese domestic news, Chinese culture, and pandemic news. Stories touting the achievements of China's political model account for an estimated 24 percent of stories and the achievement of China's economic model 16 percent of stories.

Our data show that stories in the political category contain three strands: competent leadership, responsive institutions, and Western political dysfunction. Stories on competent leadership highlight how CCP institutions lead to the selection of competent leaders who govern the country well and guide it in international relations. Stories on institutions and rights focus on the legitimacy and responsiveness of CCP institutions such as the National People's Congress and, during the first year of the pandemic, highlighted the country's success in containing the novel coronavirus relative to other countries. Finally, stories on Western dysfunction focus on protests, racism, and political vio-

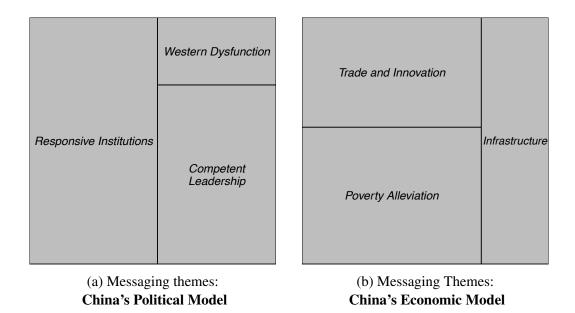


Figure 1. Frequent topics about China's political and economic models, inferred from a twenty topic LDA topic model analysis on a dataset of over 19,000 segments from China Global Television (CGTN), 2020-2021. We subset to the six topics within the two main categories of interest, China's political model (24 percent) and China's economic model (16 percent). Sizes of boxes are proportional to topic frequency.

lence in the United States, and to a lesser extent Europe, and draw contrasts with political stability in China. The political category accounts for an estimated 24 percent of content.

Stories in the economic category contain three strands: poverty alleviation, trade and innovation, and infrastructure. Stories on poverty alleviation examine how China has lifted over 800 million people out of poverty over the last four decades. Stories on trade and innovation focus on how China's economic miracle has driven global trade and economic gains around the world and highlight technological achievements such as the Chinese space program. Finally, stories on infrastructure highlight China's infrastructure-building efforts at home and abroad. These stories account for an estimated 16 percent of content on CGTN.

Our experimental design, described in more detail below, examines whether these common messages are effective at moving global attitudes towards the China model.

# 3.2 How Does the United States Promote Democracy?

The United States government espouses an external communication strategy different to the Chinese model. Starting early in the Cold War, the American State Department established funding and infrastructure for the production and dissemination of media content in foreign markets (Nye Jr 2004, p. 98). Since the Cold War ended, funding for American public diplomacy initiatives has fluctuated between 1.5 billion and 2.5 billion dollars annually (2020 dollar-adjusted), or about four percent of American spending on international affairs (Walker et al. 2022, p. 17). The U.S. Agency for Global Media (USAGM) now receives about 800 million dollars from that budget each year to be spent on foreign-facing content, with little change between presidential administrations (Walker et al. 2022, p. 293).

Under the aegis of the USAGM, a network of broadcasters, technology providers, and social media content creators distribute media designed to inform an engage foreign nationals on topics related to freedom and democracy. USAGM outlets also provide coverage of local and world news to countries with censorship policies, repressive regimes, or limited press freedom. The mandate of American public messaging abroad is divided between explicit promotion of American democratic values and the implicit support of those values through open discourse and press freedom. Much of the content produced by the American government for foreign viewers is therefore concerned primarily with presenting an American interpretation of local or global news, rather than sharing news about the United States itself.

Original content production varies by media market, with low-priority countries receiving as little as one hour of content per week. Regions like the Middle East are given nearly round-the-clock coverage by American broadcasters, with 144 hours of original content produced each week for the market in 2020 (Walker et al. 2022, p. 307). American broadcasting field offices frequently alter and expand localized coverage in response to geopolitical events, particularly when information and discourse are limited. Recent examples include American outlets' coverage in local languages of the 2020 Belarus elections, the 2021 coup in Myanmar, and ongoing coverage of oppressed Uyghur populations in China's Xinjiang Uyghur Autonomous Region.

USAGM's broadcast arms are split between federal outlets, namely Voice of America, and regional grantee networks like Radio Free Europe, Radio Free Asia, and Middle East Broadcasting Networks. Across these services, the agency claimed to reach 354 million unique individuals in 62 languages during 2020. The flagship broadcaster, Voice of America, reaches over 250 million people each week with television, radio, and online content (Walker et al. 2022, p. 296). Where USAGM is tasked with combating censorship and misinformation in closed media markets, much of its content is accessed via shortwave radio or agency-sponsored virtual private networks, making total audience figures difficult to estimate. USAGM's online presence is rapidly expanding across web and social media platforms like Twitter and WeChat. Voice of America's YouTube page features content from traditional broadcasts and its videos have been viewed more than 1 billion times.

### 3.2.1 Observational Evidence on U.S. Messaging

What messages are commonly promoted by the U.S. State Department? We created a corpus of 1,117 videos created and disseminated via ShareAmerica, which is the "U.S. Department of State's platform for sharing compelling stories and images about American society, culture, and life, and about the principles that underlie our nation's foreign policy and engagement with the world." Videos on this platform are translated into ten languages and cross-posted on social media sites like YouTube. As with the Chinese messaging corpus, we analyze this dataset using LDA topic modeling.

Overall, content produced by the State Department through ShareAmerica focuses on a mix of topics (see Appendix Table ??). We zero in on messages that promote the American model. In the politics category, two most common strains are videos promoted American diversity and immigration and videos promoting strong civil liberties, such as freedom of speech and expression. The channel also devotes resources to critiquing autocratic governments for human rights violations. For promoting the American economic system, the State Department also uses a diversity of

<sup>&</sup>lt;sup>7</sup> See https://share.america.gov/, last accessed on August 12, 2022.

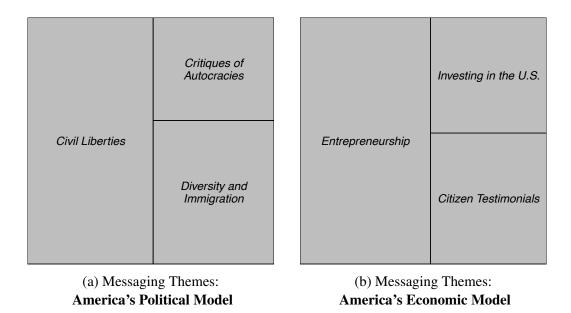


Figure 2. Frequent topics about America's political and economic models, inferred from 20 topic LDA topic model analysis on a dataset of 1,117 segments from Share America, 2008-2022. Subset to the six topics focusing on promoting America's political model (38 percent of topics) and America's economic model (20 percent of topics). Sizes of boxes are proportional to within-subtopic frequency.

approaches. The most common are videos promoting entrepreneurship and innovation. A second set of videos directly promote investment in the United States and the American education system. Finally, some videos use a citizen testimonials style to promote the economy more generally. Overall, messages promoting the American model account for an estimated 58 percent of content on these channels.

# 4 Research design and estimation procedures

To understand the effects of Chinese and American efforts to promote their political systems, we fielded a global survey with an embedded experiment. In this section, we introduce the experiment and its design, discussing country case selection, the selection of treatment videos, and the design of the experiment.

# 4.1 Country case selection

To sample a global audience, we recruited respondents through the survey firm Lucid in the following 19 countries across all 6 inhabited continents: Argentina, Australia, Canada, Chile, Colombia, Egypt, India, Indonesia, Kenya, Mexico, Nigeria, Peru, the Philippines, Saudi Arabia, Singapore, South Africa, Spain, the United Arab Emirates (UAE), and the United Kingdom. The total number of our respondents was 6,276, an average of 330 respondents per country (see Table A1 for more details).

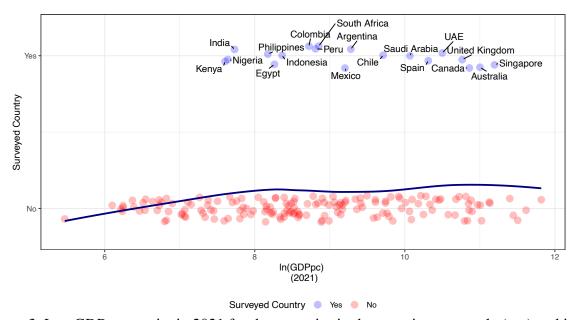


Figure 3. Log GDP per capita in 2021 for the countries in the experiment sample (top) and in the world (bottom). Note that GDP per capita for UAE is for 2020.

Figure 3 illustrates how the countries in our survey cover a wide range of levels of development, as measured by log per capita GDP. (See also Appendix Figure Figure A14.) In Appendix Section B.3, we leverage descriptive statistics from recent public opinion polls and observational data to alleviate concerns over potential selections bias and show that the 19 countries allowed us to cover a diverse set of cases in terms of their approval rates for Chinese and US leadership (Figure A7 through Figure A9), proximity to Chinese aid projects (Figure A10 and Figure A11), and regime type (Figure A12 and Figure A13). Importantly, given our H4, we sought to survey countries across

the spectrum of economic development levels. Our surveys were conducted in Arabic, English, and Spanish. While not a random population draw, our surveys were evenly balanced on gender and had an average age of 34, slightly higher than the median age of 31 in our sampled countries.

#### 4.2 Media treatment selection

Our experimental design exposed audiences to real propaganda messages from the Chinese and United States governments touting their respective systems. We chose 4 treatment videos from each country. Drawing on the same corpus of Chinese CGTN videos analyzed in Section 3.1.1 and U.S. State Department videos analyzed in Section 3.2.1, we selected videos that captured the key messages advanced by each country.

One set of messaging focused on each country's *political* model. In the case of China, these focused on leadership (especially the meritocratic nature of leader selection), the responsiveness of CCP institutions, and the country's political stability relative to the United States. In the case of the United States, these videos focused on civil rights and the diversity of American society. We selected two videos from each country that focused on these themes by watching a large number of videos and selecting videos that had high engagement and reflected well on the underlying themes. We also used quantitative metrics (described below) to assess whether the messages were representative.

A second set of messaging focused on each country's *economic* model. In the case of China, these messages focused on growth and innovation, poverty alleviation, and infrastructure development. In the case of the United States, these messages focused on how the United States has a dynamic economy and remains an attractive place to start a business and invest money. We again selected two videos from each country by watching a large number of videos and selecting videos based on viewer metrics and consistency with underlying themes, as illustrated in Section 3.1.1 and Section 3.2.1.

Quantitative metrics show that the treatment videos share strong similarities with the larger corpus of propaganda messages. In Appendix Section B.4 we analyze the linguistic distance be-

tween the language in our 8 treatment videos and the larger body of government messaging. Using a metric called Word Mover Distance, which measures the similarity of texts while accounting for synonyms, we show that the videos are generally quite typical of the larger body of messaging from each country. While we cannot necessarily infer from our study the effect of watching at random any of the tens of thousands of news segments produced by each government for international consumption, the Word Mover Distance metric suggest that the messages we use in our treatments use language typically used by each government.

# 4.3 Experimental design

Figure 4 illustrates our experimental design. Individuals in 19 countries on 6 continents were randomly assigned to one of four conditions with equal probability: a treatment condition where they viewed 2 Chinese government produced videos (*China*), a treatment condition where they viewed 2 US government produced videos (*US*), a treatment condition where they viewed 1 Chinese government produced video and 1 US government produced video (*Competition*), or a placebo condition with 2 nature videos (*Control*). Within the *China* and *US* treatment conditions, 2 videos focus on each country's domestic economy and 2 videos focus on each country's political system. In the *China* treatment condition, 2 of 4 Chinese videos were randomly assigned. In the *US* treatment condition, 2 of the 4 US videos were randomly assigned with equal probability, with the order of the countries in which the videos appear likewise randomized with equal probability.

After watching the videos, individuals were asked to complete a short survey. We focus on the following 3 main outcome variables, which were pre-registered: (1) respondents' preference for a Chinese vs. US-style political model in their own country, (2) respondents' preference for a Chinese vs. US-style economic model in their own country, and (3) respondents' preference for

<sup>&</sup>lt;sup>8</sup> In each condition, respondents were randomly assigned at least one video from the pool of videos about the country's political model, and then randomly assigned a second video about either the economic or political model.

<sup>&</sup>lt;sup>9</sup> We note that our experiment can also be thought of as having 6 treatment groups (i.e., placebo, China economy, China politics, US economy, US politics, China + US), or 9 treatment groups (placebo plus one for each treatment video).

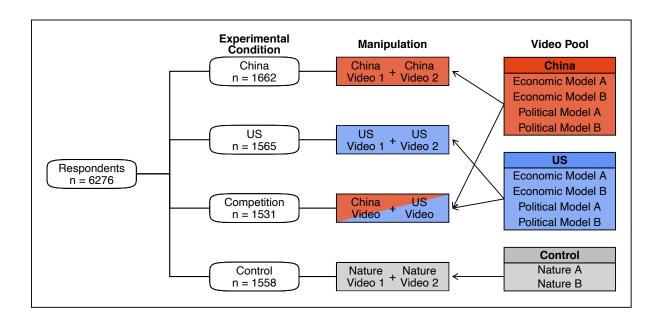


Figure 4. Sketch of Experimental Design

China or the US as world leader. Respondents were asked to indicate their preference on a 6-point scale, where 1 indicates a strong preference for the United States and 6 indicates a strong preference for China. We also collected data from eight outcome variables designed to better understand the mechanisms behind our main effects.<sup>10</sup>

The experiment was administered to 6,276 individuals who passed two pre-treatment attention checks. A breakdown of subjects by region, country, and treatment condition can be found in Table A1. Survey completion did not differ significantly by treatment condition (see Figure A4 and Figure A5), with approximately 6,000 respondents completing each of the 3 primary outcome questions.

#### 4.4 Estimation procedures

Our primary estimand is the average treatment effect (ATE) of being assigned to each treatment condition on the 3 primary outcomes listed above. We estimate the ATE using ordinary least squares (OLS) with HC2 robust standard errors and including the following pre-treatment

<sup>&</sup>lt;sup>10</sup> Exact wording of all outcome questions can be found in Appendix C.

covariates: *gender*, *age*, *education*, *national pride*, *left-right political orientation*, and *country*. In Missing covariates are imputed using predictive mean matching (Rubin 1986). We report *p* values from randomization inference and *p* values adjusted for multiple comparisons using the Benjamini-Hochberg, Holm-Bonferroni, and Bonferroni corrections in the Robustness section of the appendix.

For our mechanism outcome variables, we utilize the same procedure to estimate the ATE. However, as outlined in our preregistration plan, prior to estimation we perform dimension reduction using hierarchical clustering<sup>12</sup> on all eight outcomes, then use factor analysis on each of the identified clusters to create scores to be used as the final outcomes.

We also examine treatment effect heterogeneity by calculating conditional average treatment effects (CATEs). A CATE is an average treatment effect specific to a subgroup of subjects, where the subgroup is defined by subjects' attributes (e.g., the ATE among African respondents). We estimate heterogenous treatment effects by regressing the outcome variables on treatments separately for each region and country.

All procedures described in this section were pre-registered with the Center for Open Science Open Science Framework prior to experiment administration and data collection.

#### 5 Results

# 5.1 Is the Chinese system attractive?

Figure 5 depicts the distribution of responses across each treatment condition for each of our primary outcomes. In control, 84 percent of respondents prefer the American political system over the Chinese political system, 70 percent prefer the American economic system over the Chinese economic system, and 78 percent prefer the United States over China as world leader. At baseline, untreated individuals therefore display a strong preference for the American political model, the American economic model, and the United States as world leader. This is also consistent with our

<sup>&</sup>lt;sup>11</sup> A table of covariate balance across treatment groups can be found in Table A2. Unadjusted estimates are also reported in the appendix.

<sup>&</sup>lt;sup>12</sup> Conducted with the ClustOfVar package in R (Chavent et al. 2011).

observational analyses comparing our sample with global sample; they indicate that our surveyed countries have more negative views towards China than the non-surveyed countries. <sup>13</sup> This in turn suggests that the United States has less room to grow its support due to ceiling effects, while there is ample room for growth in support of the Chinese system.

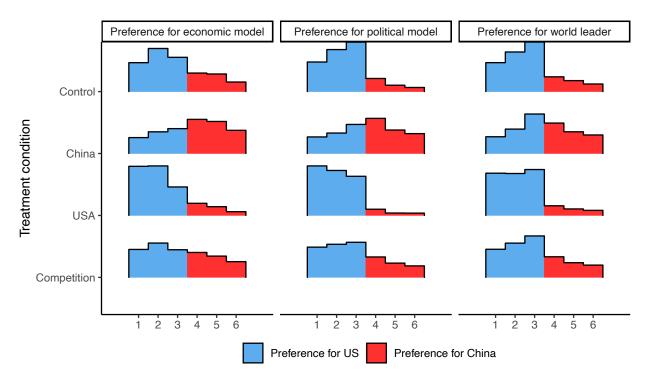


Figure 5. Distributions of primary outcomes by treatment condition

*Note*: 1 indicates a strong preference for the United States and 6 indicates a strong preference for China.

The distributions of outcomes depicted in Figure 5 shift markedly when individuals are exposed to state-produced propaganda. Figure 6 depicts the corresponding ATEs for the 3 primary outcome measures: preference for Chinese or US-style political model, preference for Chinese or US-style economic model, and preference for world leader.

Figure 6 shows that audiences are receptive to Chinese propaganda touting a "China Model"

<sup>13</sup> A distinctive feature of our survey is to ask questions about which political model respondents prefer. We do not provide definitions of models (e.g., what "China political model" and "Chinese economic model" mean), giving respondents the latitude to interpret this outcome as they choose. Subsequent questions probe why respondents prefer each model. This suggests that the questions capture respondents' general assessments of each country's political and economic system.

across all 3 outcome measures, with the strongest increase in preference for the Chinese political model. These increases are substantively large, representing 41 percent, 30 percent, and 26 percent increases in support for the Chinese political model, Chinese economic model, and China as world leader on our 6-point scale, respectively. This is consistent with our first hypothesis (H1).

American propaganda is also effective, which is consistent with H2. But we find that it is always less so than its Chinese equivalent. Finally, when individuals are exposed to both Chinese *and* American propaganda, the effectiveness of Chinese propaganda is dampened, but the overall effect remains an increase in preference for the "China Model'." This is in line with H3.

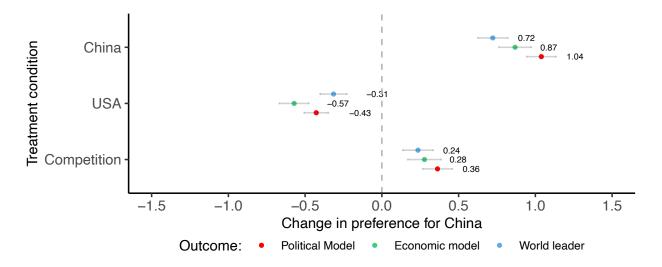


Figure 6. ATE of treatment videos on preference for political model, economic model, and world leader, by treatment condition

Note: Tabular results are presented in Table A3

# 5.2 Where is the Chinese system attractive?

Figure 7 shows the ATE of each treatment condition on respondent preference for political model, economic model, and world leader by region.<sup>14</sup> Overall, the projection of Chinese and American propaganda, in isolation, appears to be effective in all regions, albeit with considerably differing degrees. In addition, the competition arm implies that Chinese propaganda efforts outperform

<sup>&</sup>lt;sup>14</sup> A figure depicting the ATE of each treatment condition on respondent preference for political model, economic model, and world leader by country can be found in Figure A6.

American equivalents in most regions.

Consistent with our fourth hypothesis (H4), we find that messaging from China is most successful in developing countries, especially in Africa and Latin America. Most notably, the treatment effects of Chinese propaganda on preferences for Chinese political model are especially strong in the African countries we surveyed (Kenya, Nigeria, and South Africa). The appeal of the Chinese political system, not just its economic model, is somewhat surprising, especially when set next to the argument made by Repnikova (2022a), that audiences in Sub-Saharan Africa are likely to find China's economic growth story inspiring while still finding democratic political values appealing.

Another notable result is that Chinese messaging seems to be the least popular while the US seems to be the most popular among the MENA countries we surveyed (Egypt, Saudi Arabia, and the UAE). Given that Chinese message projection dominates overall, these empirical disparities in the MENA area result in a null effect in the competition treatment. All these findings about the global support for the "Chinese model," as alluded to earlier, can reasonably be attributed to the effectiveness of Chinese propaganda, not by their pre-existing public attitudes toward China (vis-à-vis the US), Chinese aid projects, regime type, and/or levels of economic development (see Figure A7 through Figure A14).

#### 5.3 Why is the Chinese system attractive?

While the results above show Chinese messaging touting the "China model" is attractive to a global audience—and especially to respondents in Africa and Latin America—they do not tell us *why* this is so. Given that global attitudes are at baseline more negative towards China than the U.S. and the Chinese videos were more influential than the U.S. videos, it may be that the Chinese government is simply better at marketing and making attractive videos than the U.S. government. However, our findings show that the story is not that simple: the global public selectively value some features of the Chinese model, while other features are less valued.

To gain traction on this question, we analyze the results of 8 pre-registered outcome questions designed to measure respondent assessments of Chinese and American government performance

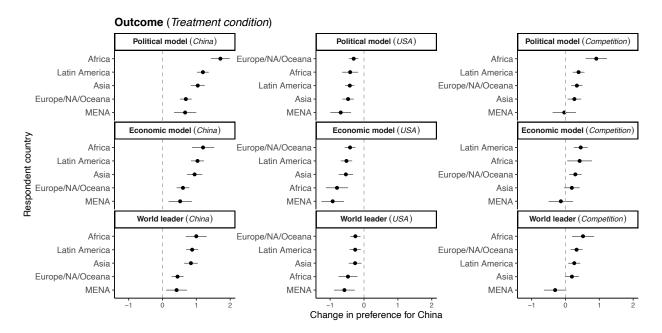


Figure 7. ATE of treatment videos on preference for political model, economic model, and world leader by region

*Note*: Y-axis labels (regions) in descending order by treatment effect size. Tabular results are presented in Table A4, Table A5, and Table A6

and democratic values. These questions ask respondents whether the political systems of China and the United States: (1) select competent leaders; (2) deliver economic growth; (3) deliver political stability; (4) are responsive to the needs of citizens; (5) provide the right to free speech; (6) result in alternation of power between competing parties; (7) have universal suffrage in national elections; and (8) are democratic in their character. We designed the questions so that (1) to (4) correspond to notions of government *performance* where questions (5) to (8) correspond to notions of *democratic* character. <sup>15</sup>

First, we descriptively examine what these outcomes reveal about respondent baseline information regarding the characteristics of the Chinese system. Responses in the placebo group reveal that most respondents have weak baseline information about the Chinese system. For example, 43% of respondents in the placebo group believe that China has a democratic system of government, 48% believe that Chinese citizens have the right to free speech, and 25% believe that all adults in China

<sup>&</sup>lt;sup>15</sup> For exact wording, see Appendix Table C.2.

may vote for their national leader (see Figure A17).

Next, we examine the changes in these outcome variables caused by our treatments. Prior to calculating treatment effects, we run a hierarchical clustering model on the eight outcomes discussed above, which identifies two distinct clusters centered on perceptions of government performance and democratic values. He two clusters that organically emerged from this exercise were the same two clusters of questions we intentionally created in our survey design. Namely, answers to questions (1) through (4) are one cluster, and these questions all relate to government performance. Questions (5) through (8) are a second cluster, and these questions all relate to notions of a government's democratic character. As outlined in our preregistration plan, we then combine the outcomes in these clusters into two indices using factor analysis: a performance index and a democracy index.

Figure 8 depicts the ATE of each treatment condition on the performance and democracy indices. <sup>17</sup> While Chinese propaganda does increase the perception that China is democratic, the effect on perceptions of performance is roughly three times as large. Further, Chinese propaganda decreases perceptions of the performance of the American system. However, when paired with American propaganda, the effectiveness of Chinese propaganda on convincing respondents that China is democratic is more than halved and is no longer significant at conventional levels, and perceptions of American performance no longer decrease. By contrast, perceptions of Chinese performance remain strong when Chinese and American propaganda are paired. This analysis suggests that it is the performance of the "China model" that is most attractive, not its values.

Examining the efficacy of each type of video (i.e., videos on the Chinese economy, Chinese politics, US economy, or US politics) provides additional evidence of the importance of *economic* performance (see Figure A20). Chinese economic videos and Chinese political videos both cause roughly the same magnitude increase in preference for the Chinese political system and China as world leader among our respondents. However, compared to political videos, economic videos

<sup>16</sup> The number of clusters is chosen based on the location of the "elbow" in a scree plot.

<sup>&</sup>lt;sup>17</sup> ATEs for each individual mechanism outcome can be found in Figure A19.

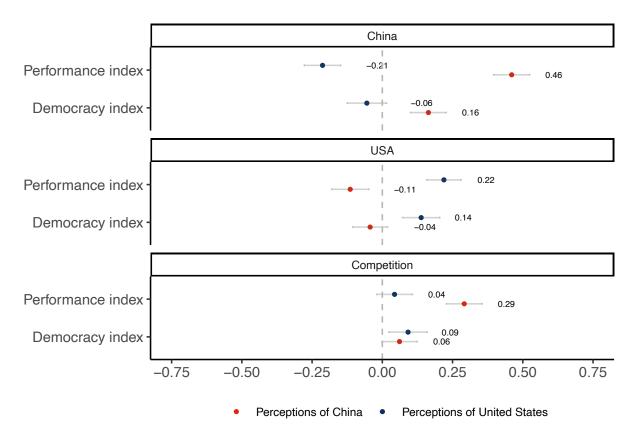


Figure 8. ATE of treatment videos on performance and democracy indices

*Note*: Tabular results in Table A7.

cause preferences for the Chinese economic system to increase to a greater degree.<sup>18</sup> The videos focusing on the Chinese economy are therefore either equally effective or more effective than videos focusing on the Chinese political system across all of our primary outcomes.

#### 6 Conclusion

Heightened competition between the United States and China is likely to shape international politics for years to come. Yet we know relatively little about whether global audiences are persuaded by competing efforts by the China and the United States to sell the merits of authoritarian and democratic regimes. We use an experiment replicated across 19 countries and 6 continents to gauge

<sup>&</sup>lt;sup>18</sup> This difference is significant at the 1% level based on a two-tailed linear hypothesis test. Note that as described above, all respondents were assigned at least one political videos, so while videos were randomized they were not randomized with equal probability.

how global audiences respond to these efforts. We exposed audiences in these countries to real propaganda messages from China and the United States. Observational data on over 20,000 media segments show these messages to be typical of the propaganda strategies used by these countries' governments.

Do global audiences find authoritarian models attractive? There is considerable skepticism about the ability of authoritarian regimes to sell the merits of their systems. As Shambaugh (2015, p. 107) writes, "despite [China's] extraordinary economic rise over the last several decades, so long as its political system denies, rather than enables, free human development, its propaganda efforts will face an uphill battle." However, our surveys showed that exposure to real Chinese propaganda led to very large increases in support for China's authoritarian economic and political model. The results were striking: we find that propaganda grows global support for China's economic model from 16 percent to 54 percent.

When a global audience views competing messages from democracies and autocracies selling the merits of their political systems, which messages are most persuasive? Despite skepticism about the ability of the Chinese government's media operations, we find that Chinese messages are generally more persuasive than American efforts. When a global audience is exposed to real messages from both governments touting their systems, they move in the direction of preferring the China model.

Where are efforts to sell the "China model" most attractive? China has made significant investments in foreign media in Africa and Latin America. Our results indicate one reason why: audiences in these countries find China's messaging about poverty alleviation, infrastructure, and innovation appealing, and that China is a role model for development. Chinese messaging is less effective in Europe or North America. Western scholars and media who are dismissive of Chinese efforts to sell their political system because audiences in their home country are also skeptical risk missing the global picture.

Why do audiences find the China model attractive? Our experiments show that Chinese propaganda does not move audiences very much on thinking the Chinese system is somehow democratic,

but rather persuades audiences that the system is responsive and effective at delivering economic growth. While audiences value civil liberties and democracy, they also find messages about the performance of the Chinese government convincing. The Chinese government's self-professed ability to select competent leaders, foster growth, maintain stability, and respond to citizen demands make the system attractive.

Future work on this question could build on these findings in several ways. First, our experiments test real messages from the Chinese and American governments, which enhances the external validity of our results but also has limitations. Each treatment bundles together several different messages: for example, the Chinese treatments combine messaging about economic growth with messages about meritocracy and critiques of the stability of the American system. While realistic, future work might hone in on which messages within these treatments move audiences.

Future work might also examine similar questions using observational data and field experiments. While we have taken care to use real treatments, in the field audiences are exposed to these messages in the context of a deluge of other messages and other distractions. Moreover, in the real world audiences may decide to tune out messages they would listen to in the context of a survey experiment. Observational work and field experiments could leverage the spread of Chinese media networks like CGTN to untangle the effects of viewership of Chinese media. A potential disadvantage of this approach is that replicating it across 19 different countries, as we do here, is likely to be prohibitively costly.

Finally, going forward, work on this topic could examine efforts by other democracies and autocracies to sell the merits of their political systems. China and the United States are in many ways unique, in part because they are the two most powerful players in global politics, and in part because they have unique domestic political institutions. China is a relatively repressive autocracy with a Leninist political system, but also one that can tell a remarkable story of miraculous economic growth. Would it be easier or harder to sell the benefits of a system that relies on less overt oppression, and more on manipulating the media to make leaders popular, like Russia or Hungary (Guriev and Treisman 2019)? Would a country other than the United States — with its mix of

technological dynamism and political gridlock, civil liberties and political violence — be better positioned to sell the merits of democracy?

On the whole, our results have important implications for scholars and policymakers interested in democratic resilience. Despite skepticism about the ability of autocracies to sell their political systems, we show that real messaging from China is strikingly effective at persuading a global audience to embrace the Chinese model, and even out-competes messaging from the United States. At the same time, our findings highlight the fact that if the United States chooses not to compete and sell the merits of democracy, it could lead to a rapid growth in global support for authoritarian political systems.

As Weiss (2022) notes, America's continued global leadership may require "humble acknowledgment of instances where the United States" has fallen short of its democratic values, and — to compete with China's compelling development story and generous aid — "deliver[ing] value for citizens in developing countries whether on COVID-19, climate, hunger, or technology." In short, in order for democracy to remain a global ideal, the United States will need to take proactive steps to make its political system attractive.

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# **Supporting Information**

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# **A** Descriptive Statistics

Region & country		Treatme	nt cond	ition	
	Control	China	USA	Competition	Total
Africa	196	208	212	200	816
Kenya	27	15	34	26	102
Nigeria	83	94	88	87	352
South Africa	86	99	90	87	362
Asia	342	381	336	360	1419
India	89	95	93	87	364
Indonesia	78	90	81	91	340
Philippines	110	121	104	112	447
Singapore	65	75	58	70	268
Europe/N.America/Oceania	383	406	404	396	1589
Australia	81	92	90	85	348
Canada	71	102	95	89	357
Spain	120	96	104	98	418
UK	111	116	115	124	466
Latin America	458	440	431	413	1742
Argentina	86	88	73	81	328
Chile	108	99	96	103	406
Colombia	96	82	79	87	344
Mexico	82	78	82	66	308
Peru	86	93	101	76	356
Middle East/North Africa	179	187	182	162	710
Egypt	128	132	138	96	494
Saudi Arabia	27	34	27	34	122
UAE	24	21	17	32	94
	1558	1622	1565	1531	6276

Table A1. Respondents by region, country, and treatment condition

	Contro	l (N=1558)	China	(N=1622)	USA	(N=1565)	Compet	ition (N=1531)
	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.
Gender	0.5	0.5	0.6	0.5	0.5	0.5	0.6	0.5
Age	34.4	12.2	34.4	12.0	34.8	12.6	34.0	11.7
Education	2.8	0.7	2.9	0.7	2.9	0.7	2.9	0.7
National Pride	3.6	0.6	3.5	0.7	3.5	0.7	3.5	0.7
Political orientation	4.1	1.4	4.1	1.4	4.1	1.4	4.1	1.3

Table A2. Covariate balance by treatment group

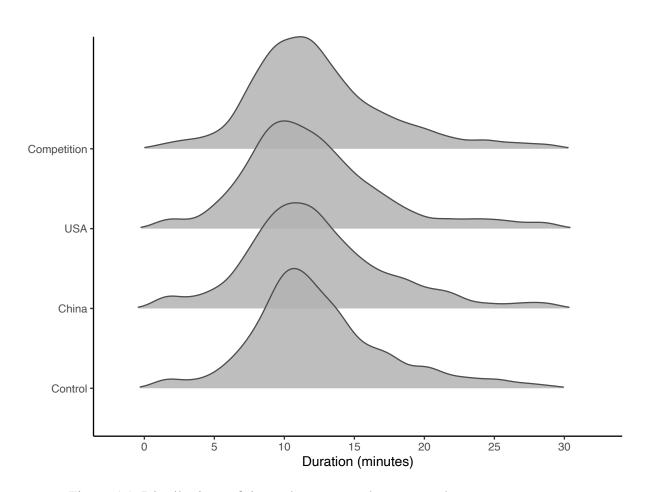


Figure A1. Distributions of time taken to complete survey, by treatment group

## A.1 Outcome distributions

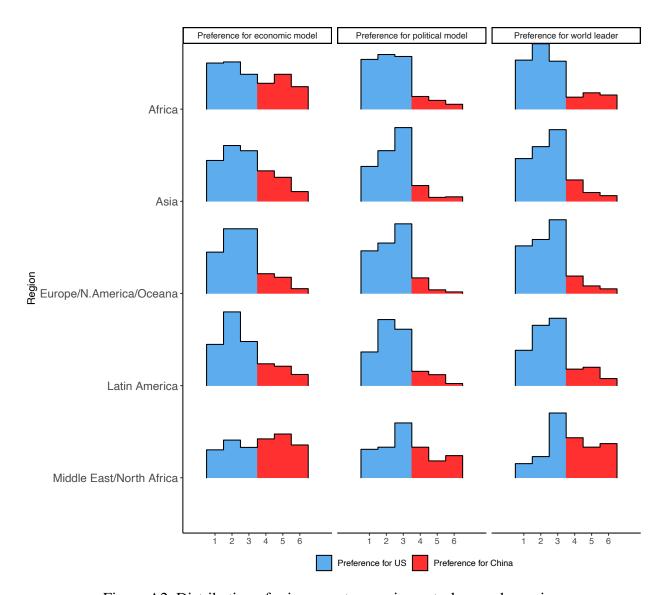


Figure A2. Distribution of primary outcomes in control group by region.

*Note*: 1 indicates a strong preference for the United States and 6 indicates a strong preference for China.

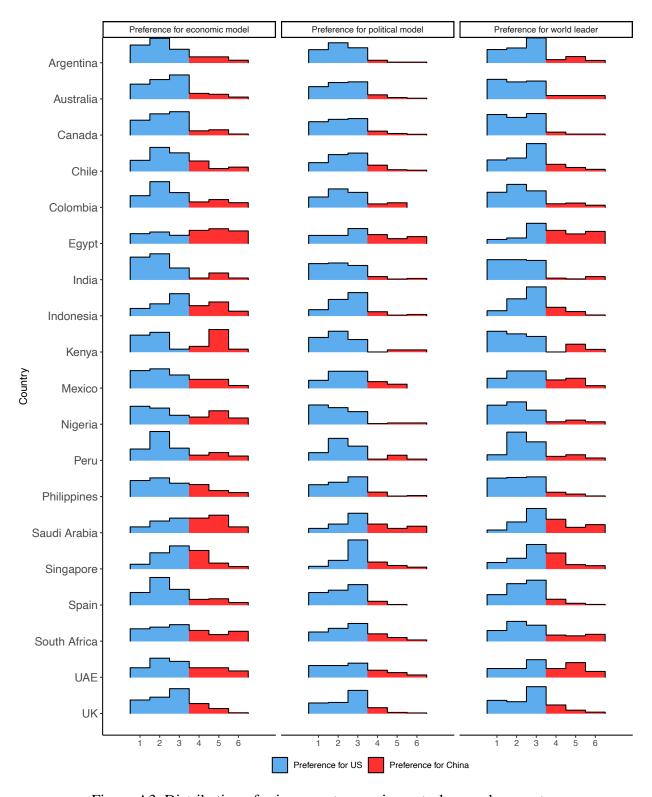


Figure A3. Distribution of primary outcomes in control group by country.

*Note*: 1 indicates a strong preference for the United States and 6 indicates a strong preference for China.

## A.2 Attrition

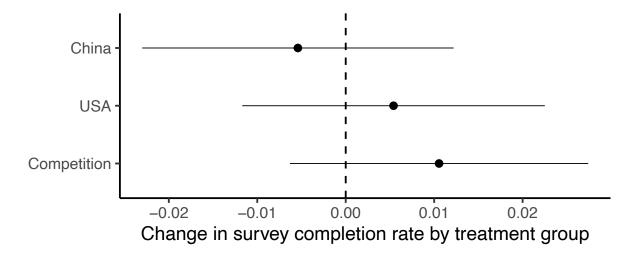


Figure A4. Check for differential attrition by overall survey completion

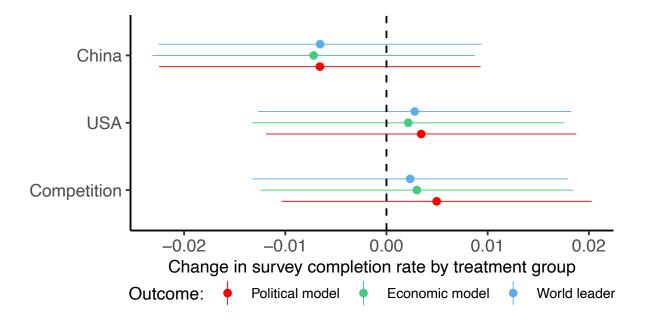


Figure A5. Check for differential attrition by primary outcome response

## **B** Supplementary analysis

## **B.1** Tabular results

	Political Model	Economic model	World leader	Political Model	Economic model	World leader
Constant	3.32***	3.76***	2.74***	2.56***	2.88***	2.75***
	(0.20)	(0.23)	(0.20)	(0.03)	(0.04)	(0.03)
Competition	0.36***	0.28***	0.24***	0.37***	0.28***	0.23***
	(0.05)	(0.06)	(0.05)	(0.05)	(0.06)	(0.05)
USA	-0.43***	-0.57***	-0.31***	-0.44***	-0.58***	-0.33***
	(0.04)	(0.05)	(0.04)	(0.04)	(0.05)	(0.05)
China	1.04***	0.87***	0.72***	1.05***	0.87***	0.72***
	(0.05)	(0.05)	(0.05)	(0.05)	(0.06)	(0.05)
Covariate adjustment:	Yes	Yes	Yes	No	No	No
Num.Obs.	5952	5946	5943	5952	5946	5943

Notes: HC2 robust standard errors in parentheses.

Table A3. ATE of treatment videos on preference for political model, economic model, and world leader, by treatment condition

	Africa	Asia	Europe/N.America/Oceana	Latin America	Middle East/North Africa
Constant	3.37***	2.33***	3.52***	3.73***	3.04***
	(0.43)	(0.31)	(0.22)	(0.28)	(0.47)
Competition	0.93***	0.25*	0.33***	0.39***	-0.04
	(0.16)	(0.10)	(0.08)	(0.09)	(0.18)
USA	-0.40***	-0.45***	-0.30***	-0.43***	-0.68***
	(0.12)	(0.08)	(0.07)	(0.07)	(0.16)
China	1.71***	1.03***	0.69***	1.19***	0.67***
	(0.14)	(0.10)	(0.09)	(0.09)	(0.17)
Covariate adjustment:	Yes	Yes	Yes	Yes	Yes
Num.Obs.	757	1359	1474	1666	696

Notes: HC2 robust standard errors in parentheses.

Table A4. ATE of treatment videos on preference for political model by region

<sup>+</sup> p < 0.1, \* p < 0.05, \*\* p < 0.01, \*\*\* p < 0.001

<sup>+</sup> p < 0.1, \* p < 0.05, \*\* p < 0.01, \*\*\* p < 0.001

	Africa	Asia	Europe/N.America/Oceana	Latin America	Middle East/North Africa
Constant	3.77***	3.12***	3.87***	3.50***	3.03***
	(0.51)	(0.35)	(0.25)	(0.30)	(0.52)
Competition	0.42*	0.17	0.29**	0.46***	-0.12
	(0.19)	(0.11)	(0.09)	(0.10)	(0.18)
USA	-0.79***	-0.52***	-0.41***	-0.53***	-0.93***
	(0.17)	(0.10)	(0.08)	(0.09)	(0.17)
China	1.19***	0.94***	0.61***	1.03***	0.52**
	(0.17)	(0.11)	(0.09)	(0.10)	(0.17)
Covariate adjustment:	Yes	Yes	Yes	Yes	Yes
Num.Obs.	755	1357	1474	1665	695

Notes: HC2 robust standard errors in parentheses.

Table A5. ATE of treatment videos on preference for economic model by region

	Africa	Asia	Europe/N.America/Oceana	Latin America	Middle East/North Africa
Constant	2.87***	2.29***	3.35***	4.26***	2.13***
	(0.43)	(0.31)	(0.23)	(0.28)	(0.51)
Competition	0.52**	0.18+	0.34***	0.26**	-0.26
	(0.16)	(0.10)	(0.09)	(0.09)	(0.17)
USA	-0.45**	-0.25**	-0.24**	-0.27**	-0.59***
	(0.14)	(0.09)	(0.08)	(0.08)	(0.15)
China	0.97***	0.83***	0.46***	0.87***	0.43**
	(0.15)	(0.10)	(0.09)	(0.09)	(0.16)
Covariate adjustment:	Yes	Yes	Yes	Yes	Yes
Num.Obs.	756	1357	1475	1660	695

Notes: HC2 robust standard errors in parentheses.

Table A6. ATE of treatment videos on preference for world leader by region

	Performance index (US)	Democracy index (US)	Performance index (China)	Democracy index (China)
Constant	-1.03***	-1.27***	-0.49***	-0.15
	(0.13)	(0.15)	(0.13)	(0.14)
Competition	0.04	0.09*	0.29***	0.06+
	(0.03)	(0.03)	(0.03)	(0.03)
USA	0.22***	0.14***	-0.11***	-0.04
	(0.03)	(0.03)	(0.03)	(0.03)
China	-0.21***	-0.06	0.46***	0.16***
	(0.03)	(0.04)	(0.03)	(0.03)
Covariate adjustment:	Yes	Yes	Yes	Yes
Num.Obs.	5936	5940	5936	5940

Notes: HC2 robust standard errors in parentheses.

Table A7. ATE of treatment videos on performance and democracy indices

<sup>+</sup> p < 0.1, \* p < 0.05, \*\* p < 0.01, \*\*\* p < 0.001

<sup>+</sup> p < 0.1, \* p < 0.05, \*\* p < 0.01, \*\*\* p < 0.001

<sup>+</sup> p < 0.1, \* p < 0.05, \*\* p < 0.01, \*\*\* p < 0.001

## **B.2** Heterogeneous treatment effects

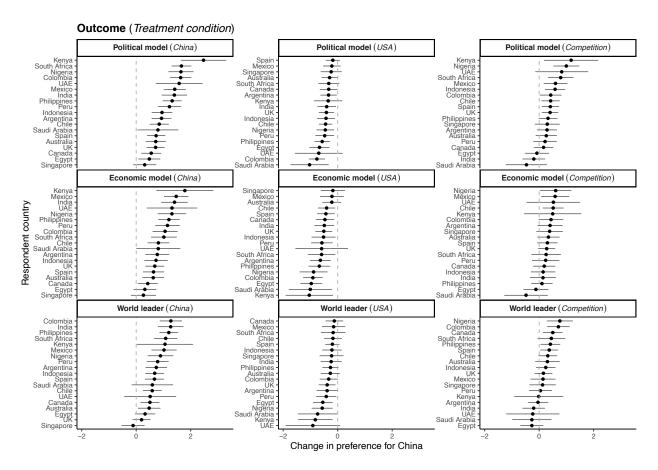


Figure A6. ATE of treatment videos on preference for political model, economic model, and world leader, by country

*Note*: Y-axis labels (countries) in descending order by treatment effect size.

#### **B.3** Country case selection

Here, we present visualizations that help address concerns over potential bias in light of our country selection. We leverage four different types of existing public opinion polls and observational datasets. Although we attempted to collect the most recent data available, the years on which we base relevant data collection vary. In addition, the different data we collected include and/or exclude different countries. Therefore, we plot descriptive statistics instead of performing pooled regression analysis.

First, for Figure A7 through Figure A9, we use the most recent data from the Gallup World Poll (released in 2022) on how well-approved Chinese and US leadership was in 2021. In total, 117 countries are represented in the data, including 17 countries among the 19 countries in which we fielded our surveys; Saudi Arabia and the United Arab Emirates are not included in the data (the most recent data on Saudi Arabian citizens; approval of Chinese and US leadership is from 2009, and the most recent data on UAE citizens' approval of Chinese and US leadership is from 2010).

In short, we chose countries that are broadly representative in terms of their approval rates for Chinese and US leadership; we did not conduct surveys disproportionately in either pro-China or pro-US countries. If we had conducted our surveys disproportionately in countries that supported China (as opposed to the US), for example, the blue data points in Figure A7 would have been concentrated in the lower right corner.

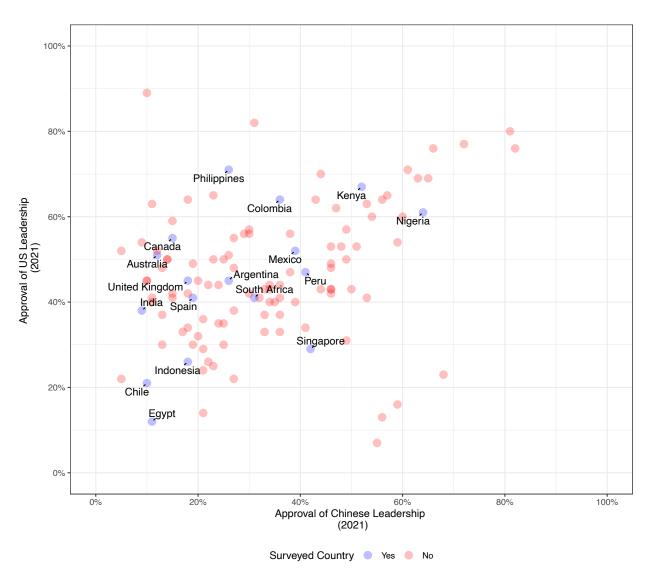


Figure A7. Approval of Chinese and US Leadership: Global and Surveyed Samples

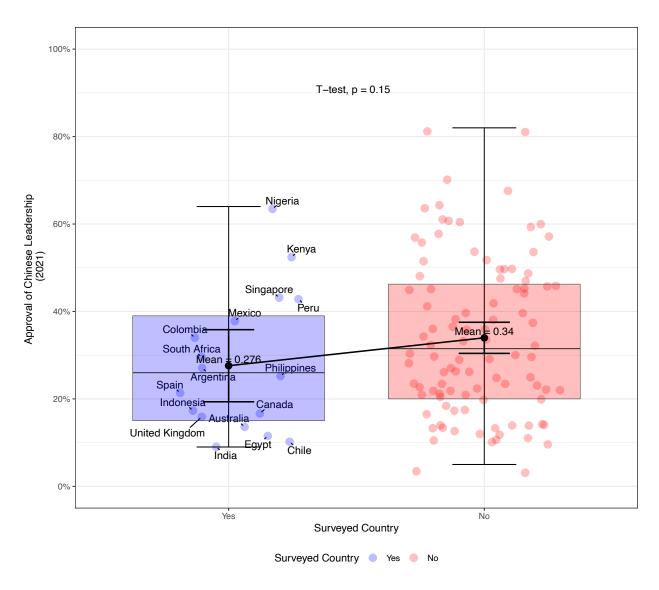


Figure A8. Approval of Chinese Leadership: Difference in Means between Global and Surveyed Samples

*Note*: The data points are "jittered" to avoid overlaps. Bold fences surrounding means denote 95 percent confidence intervals.

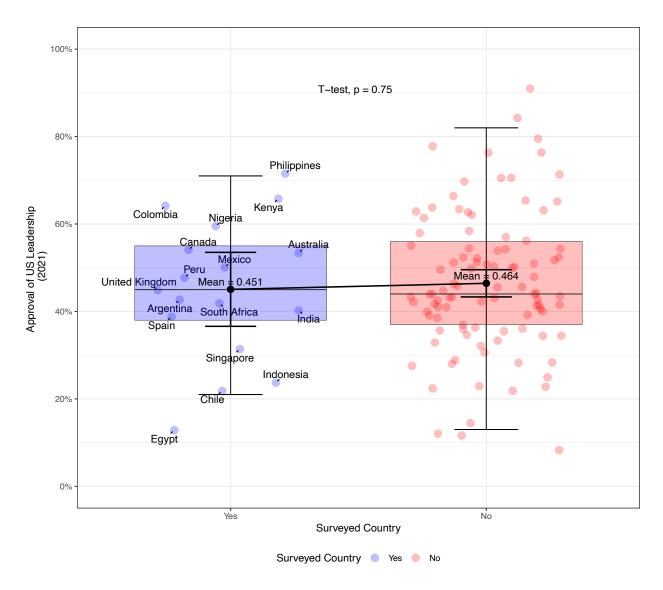


Figure A9. Approval of US Leadership: Difference in Means between Global and Surveyed Samples

*Note*: The data points are "jittered" to avoid overlaps. Bold fences surrounding means denote 95 percent confidence intervals.

Second, to plot Figure A10 and Figure A11, we retrieve the count of Chinese aid projects between 2000 and 2017 from AidData's most recent edition of the Global Chinese Development Finance Dataset (released in 2021). The number of Chinese aid projects were systematically detected by AidData's Tracking Underreported Financial Flows (TUFF) technique. The dataset records 166 countries in total, including 12 of our 19 country samples; the other seven countries—be they Singapore, Australia, Canada, Spain, the United Kingdom, Saudi Arabia, and the United Arab Emirates—are not represented in the dataset because no Chinese aid-related projects were found therein between 2000 and 2017.

Simply put, our surveyed countries do not disproportionately contain those countries where

Chinese aid programs may have patently affected the public's positive attitudes toward China.

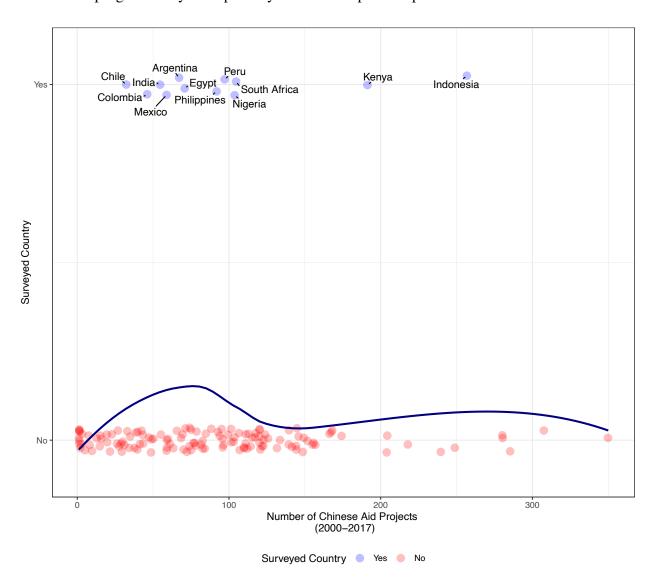


Figure A10. Receipt of Chinese Aid Projects: Global and Surveyed Samples

*Note*: The data points are "jittered" to avoid overlaps.

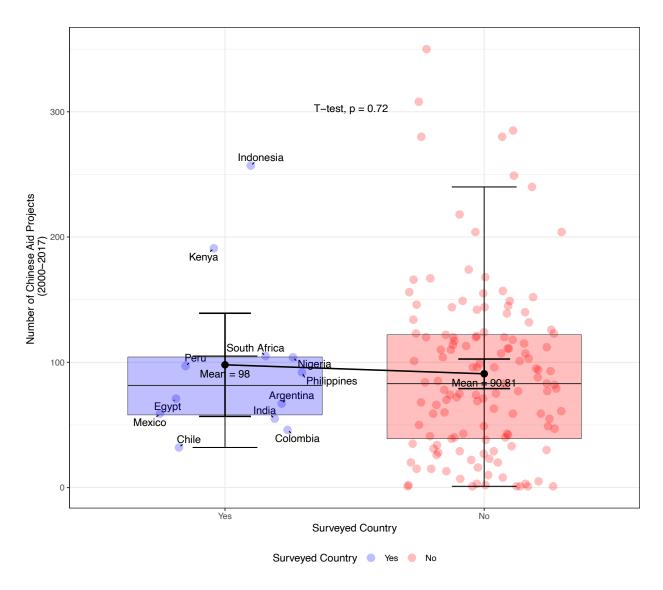


Figure A11. Receipt of Chinese Aid Projects: Difference in Means between Global and Surveyed Samples

*Note*: The data points are "jittered" to avoid overlaps. Bold fences surrounding means denote 95 percent confidence intervals.

Third, in order to make Figure A12 and Figure A13, we obtain information about regime types in 2018 using the most recent version (released in 2019) of the Center for Systemic Peace's Polity IV scores. All 19 of the countries in which we surveyed are included in the list of 167 total countries in the data. While rendering Figure A12, We omitted the observations for China and the US.

In short, we conducted our surveys in both democratic and non-democratic countries roughly reflecting the distribution of the regime type of countries in the global system.

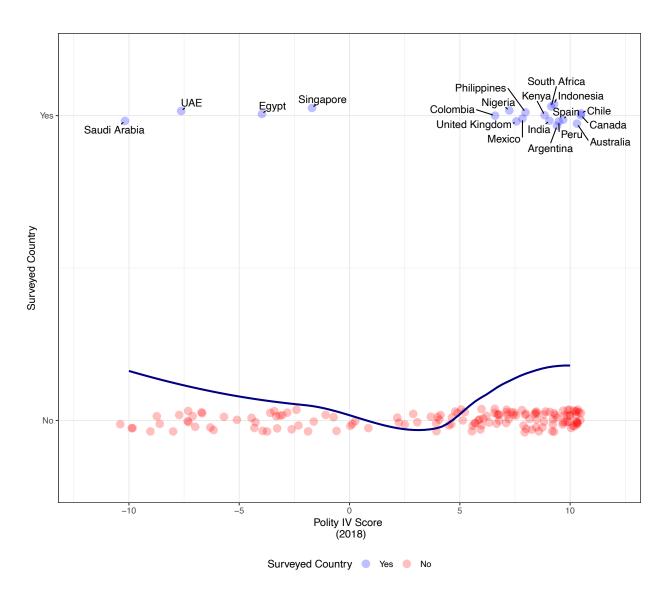


Figure A12. Regime Type: Global and Surveyed Samples

*Note*: The data points are "jittered" to avoid overlaps.

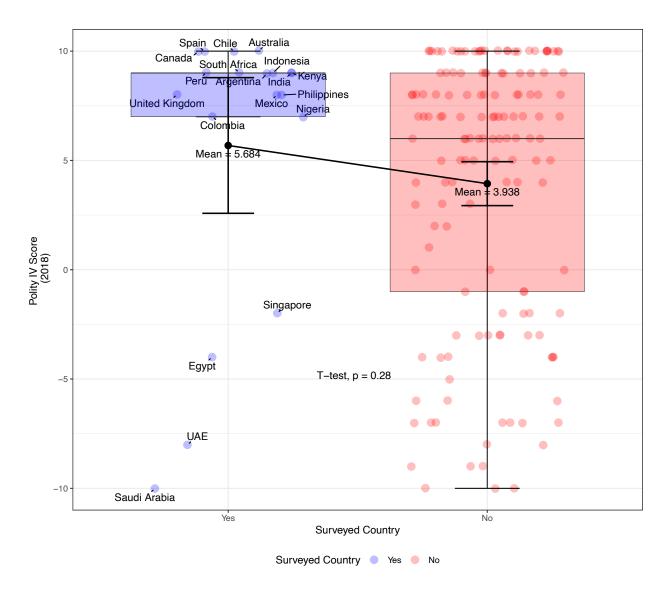


Figure A13. Regime Type: Difference in Means between Global and Surveyed Samples

*Note*: The data points are "jittered" to avoid overlaps. Bold fences surrounding means denote 95 percent confidence intervals.

Finally, for Figure 3 and Figure A14, we use World Bank's World Development Indicators (accessed in 2022) to attain the most recent data on GDP per capita (current US dollars) in 2021. We use the natural log of the variable given its highly skewed nature. All 19 of the countries in our survey are included in the total of 218 countries that are listed in the data; however, the 2021 GDP per capita for the United Arab Emirates is missing, so we imputed the data with the 2020 GDP per capita. While rendering Figure 3, We omitted the observations for China and the US.

Again, we conducted surveys in countries with varied levels of economic development.

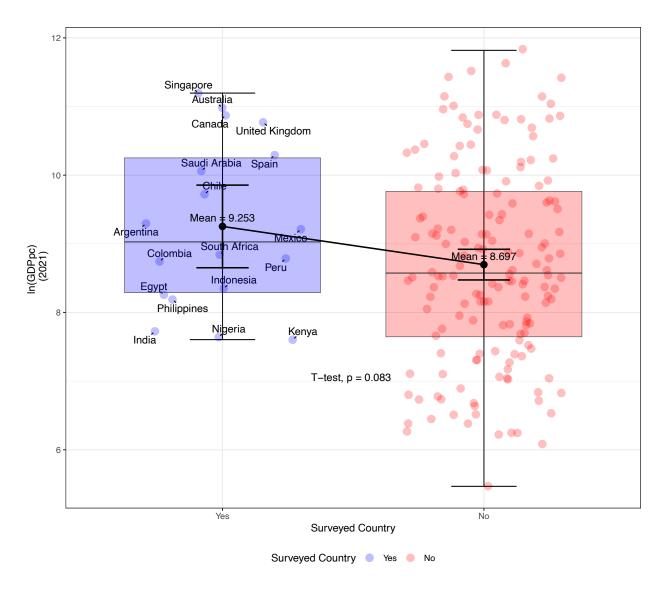


Figure A14. Level of Economic Development: Difference in Means between Global and Surveyed Samples

*Note*: The data points are "jittered" to avoid overlaps. Bold fences surrounding means denote 95 percent confidence intervals.

### **B.4** Media treatment selection

In this section, we quantify the similarity between the chosen treatments and the larger corpus of videos from CGTN and ShareAmerica. To do so, we use a metric called Word Mover Distance (WMD). At its core, this method first converts each word to a vector using an algorithm such as Word2Vec, then calculates the "minimum amount of distance that the embedded words of one document need to 'travel' to reach the embedded words of another document" (Kusner et al. 2015, p. 1). The score is normalized such that 1 is perfect similarity — a document will have a WMD score of 1 when compared to itself — and 0 is no similarity.

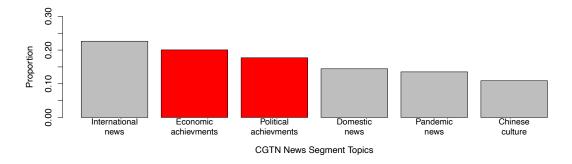


Figure A15. Estimated topics of over 19,000 segments from China Global Television (CGTN), 2020-2021. Categories combine topics from a 20-topic LDA model. See details in the appendix.

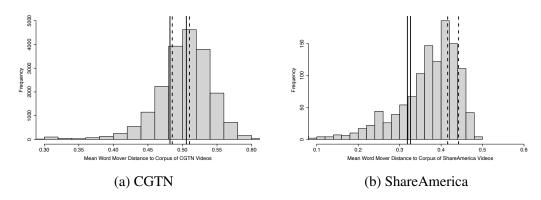


Figure A16. Distribution of similarity values (mean relaxed word mover distance) for all videos in the full sample of 19,791 CGTN videos posted on YouTube. Scores for the political model treatment marked with solid lines, economic model treatment with dotted lines. Larger scores indicate the words in the video description are more similar to the words in the descriptions in other videos in the corpus. Low scores indicate the videos are less similar. The exercise shows that none of the selected videos are outliers.

We first calculate a WMD score that compares each video description to each other video description in each of the datasets (separately). Then, for each video, we calculate its average WMD score when compared to all documents in the corpus. This allows us to create a distribution of WMD scores for each corpus.

Intuitively, a high score indicates that the video is quite similar to many documents in the corpus. More precisely, the average "distance" between the words in the document and the words in the rest of the corpus is low. A low score indicates that the video is something of an outlier.

In Figure A16 we plot histograms of similarity scores for all documents in each of the two sets of documents and indicate the treatment videos using black lines. The solid lines indicate the political treatments and the dashed lines the economic treatments. Figure A16a shows that the four selected treatments are in the center of the distribution, which indicates that the videos have average similarity scores. This does not indicate that they are the most typical (that would be a video at the right end) but it also shows that they are not outliers. Similarly, in Figure A16b the

video treatments are near the center of the distribution. Again, this shows that they are not outliers and are somewhat typical.

#### **B.5** Mechanism outcomes

To what extent do you agree with the following statement? In China...

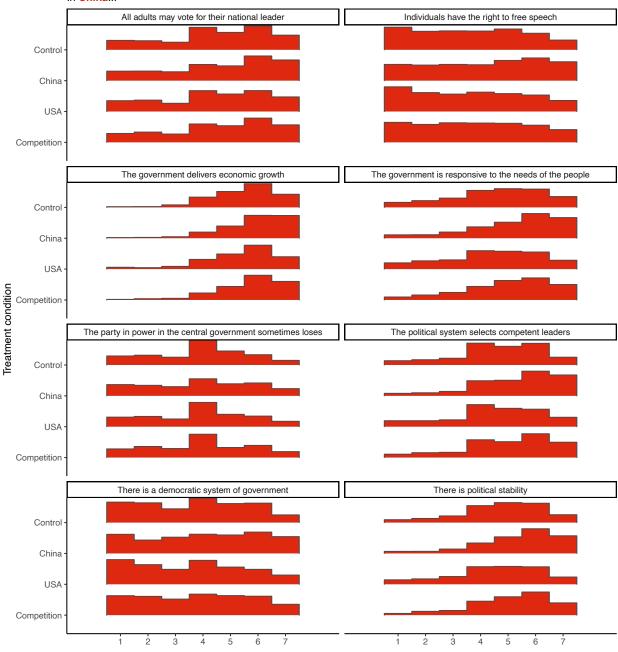


Figure A17. Distribution of mechanism outcomes by treatment group, China

Note: 1 indicates strong disagreement and 7 indicates strong agreement.

To what extent do you agree with the following statement? In the United States... All adults may vote for their national leader Individuals have the right to free speech Control China USA Competition The government delivers economic growth The government is responsive to the needs of the people Control China USA Treatment condition Competition The party in power in the central government sometimes loses The political system selects competent leaders Control China USA Competition There is a democratic system of government There is political stability Control China USA

Figure A18. Distribution of mechanism outcomes by treatment group, United States

Note: 1 indicates strong disagreement and 7 indicates strong agreement.

To what extent do you agree with the following statement? In China (the United States)...

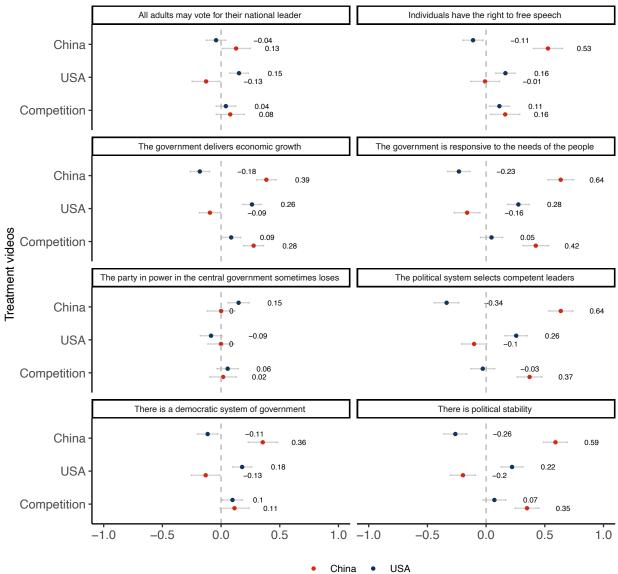


Figure A19. ATE of treatment videos on individual mechanism outcomes

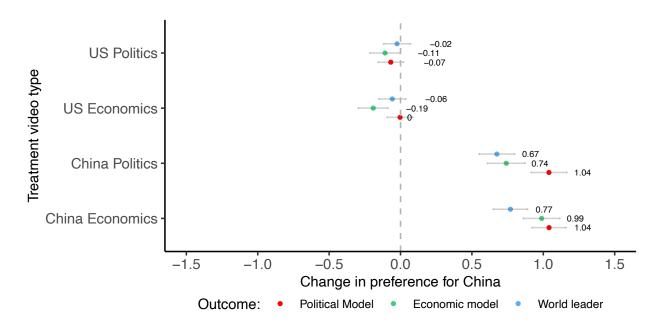


Figure A20. ATE of treatment videos on preference for political model, economic model, and world leader, by video type

Table A8. Estimated topics of 19,791 segments from CGTN, 2021-2022, Part 1. Categories from a 20-topic LDA model. Number of topics chosen to reduce perplexity while maintaining interpretability.

topic	category	words
1	Political Model (Responsive Institutions)	control, measures, prevention, testing, schools, nucleic, acid, latest, bund, asymptomatic, distancing, containment, imported, transmitted, shijiazhuang, locally, risk, students, tests, outbreak, hebei, shops, businesses, reopening, covid
2	Economic Model (Innovation)	mars, origins, lab, study, origin, published, science, samples, evidence, tracing, tianwen, laboratory, planet, e, exploration, scientific, moon, rover, researchers, scientists, originated, probe, chain, supply, imf
3	International News	foreign, ministry, wang, state, yi, spokesperson, councilor, minister, council, pompeo, seeds, taiwan, ministers, press, mechanism, dialogue, lijian, wenbin, spokesman, information, meng, alaska, counterpart, affairs, blinken
4	Domestic News	least, injured, rescue, killed, heavy, dead, trapped, flood, rain, were, missing, explosion, floods, fire, rescued, flooding, earthquake, henan, mine, rainfall, zhengzhou, rains, accident, beirut, m
5	Chinese Culture and Travel	autonomous, xinjiang, uygur, region, tibet, northwest, kilometers, railway, prefecture, desert, lake, bridge, guangxi, zhuang, cotton, mongolia, canyon, above, located, inner, tibetan, built, meters, lhasa, project
6	Chinese Culture and Travel	hainan, mount, island, enjoy, elephants, species, qo- molangma, mountain, sanya, protect, forest, nature, signal, herd, excavations, view, real, wild, yunnan, visitors, degree, break, reserve, join, tree
7	Chinese Culture and Travel	university, professor, cgtn, guests, anchor, base, talked, professor, cgtn, guests, anchor, base, talked, profescounter, fellow, treasure, dubbed, reporter, dujiangyan, guest, pandas, giant, adored, guan, interview, xin, exclusive, liu, tsinghua, economics
8	International News	army, liberation, aircraft, pla, elections, military, fauci, dol- lars, anthony, weapons, parade, package, dollar, fighter command, another, drill, j, sri, georgia, takeover, cold, di- rect, voting, billion
9	Political Model (Leadership)	forum, session, astronauts, summit, premier, station, expospace, leaders, keqiang, annual, import, shenzhou, cppcc, module, hosted, asean, consultative, ciie, agenda, international, tianhe, un, fair, taikonauts
10	International News	we, do, know, they, but, mara, our, t, you, kenya, maasai, want, life, don, safari, what, how, if, like, find, only, can wildebeest, might, or

Table A9. Estimated topics of 19,791 segments from CGTN, 2021-2022, Part 1. Categories from a 20-topic LDA model.

topic	category	words
11	Chinese Culture	festival, music, museum, traditional, sanxingdui, film, spring, song, ruins, dance, holiday, light, opera, bronze, ancient, falls, performed, voyage, year, gala, archaeologists, boat, folk, cultural, show
12	Economic Model (Infrastructure)	car, months, canal, days, after, hours, guinea, victims, old, was, bus, dozen, stations, truck, reopened, three, weeks, then, rushed, month, driver, tons, viral, daughter, left
13	Political Model (Responsive Institutions)	hong, kong, administrative, law, hksar, satellite, special, security, lam, legislation, carrie, hongkong, executive, system, macao, chief, sar, draft, rocket, legislature, navigation, national, launch, electoral, legislative
14	Economic Model (Poverty Alleviation)	poverty, tokyo, village, olympic, games, ice, alleviation, olympics, winter, guizhou, extreme, waterfall, rice, tea, southwest, sports, villagers, athletes, jilin, changchun, impoverished, nuorilang, temperatures, dog, paddy
15	Economic Model (Poverty Alleviation) 15	growth, crested, challengers, carbon, shenzhen, gdp, ibis, influencers, tian, wei, honghong, economy, azerbaijan, currency, djs, presenters, zone, pudong, huohuo, campaign, camera, looking, economic, create, armenia
16	Pandemic	medical, cases, patients, hospital, deaths, coronavirus, number, covid, positive, infections, confirmed, tested, frontline, wave, toll, infection, respiratory, variant, doctors, medics, suga, zhong, hospitals, surge, reported
17	Political Model (Responsive Institutions)	vaccine, vaccines, doses, taliban, kabul, sinopharm, sinovac, received, iran, afghan, batch, deal, israel, afghanistan, trials, airport, tedros, nuclear, adhanom, donated, ghebreyesus, israeli, arab, approved, vaccination
18	International News	trump, donald, biden, joe, u, he, president, tiktok, house, his, ban, administration, app, elect, election, presidential, votes, capitol, democracy, twitter, blame, andrew, republican, cuomo, would
19	Political Model (Leadership)	xi, jinping, party, communist, cpc, anniversary, president, founding, general, dprk, inspected, republic, inspection, delivered, guterres, chinese, stressed, committee, antonio, consulate, visited, central, speech, aggression, link
20	Political Model (Western Dysfunction)	police, protests, protesters, floyd, george, officer, court, officers, putin, protest, vladimir, black, arrested, russian, demonstrators, minneapolis, french, german, demonstrations, racism, death, demanding, macron, emmanuel, racial

Table A10. Estimated topics of 1,117 segments from ShareAmerica, 2008-2022, Part 1. Categories from a 20-topic LDA model. Number of topics chosen to reduce perplexity while maintaining interpretability.

	topic	words
1	Economic Model	last, finished, join, both, help, your, access, up, global, also,
	(Entrepreneurs)	let, team, but, entrepreneurs, with, only, get, you, wildlife,
2	D 192 1 36 1 1	media, social, us, well, an, at
2	Political Model	women, vice, speakers, include, robinson, education, facil-
	(Civil Liberties)	ities, miller, foundation, girls, may, development, society, jackie, text, youth, environment, director, make, president,
		dr, th, every, international, young
3	International Secu-	de, iranian, water, en, martin, event, la, held, king, today,
	rity	impact, russia, technology, national, one, has, been, which,
	·	iran, its, since, dr, after, regime, day
4	General Public	ambassador, forward, republic, new, wife, meet, excited,
	Diplomacy	his, family, return, he, career, watch, looks, people, learn,
_		look, john, india, hear, africa, be, well, as, about
5	Economic Model	about, not, if, many, learn, save, or, things, more, i, says,
	(Testimonials)	should, so, you, them, what, connect, than, ways, how, watch, any, no, country, planet
6	Economic Model	health, hosting, effects, states, united, year, sustainable,
O	(Invest)	china, energy, money, online, science, visit, most, us, right,
	(=== , ===)	make, since, create, more, its, your, m, resources, develop-
		ment
7	Political Model	english, efforts, democracy, just, muslim, available, busi-
	(Civil Liberties)	nesses, share, citizens, message, introduces, why, express,
		free, relationship, governments, between, that, religious, re-
8	Dolitical Model (Di	flect, america, gov, against, hear, crisis
0	Political Model (Diversity)	top, black, environmental, month, north, woman, foreign, an, her, role, january, others, community, history, american,
	versity)	while, as, february, policy, ukraine, social, experience, dis-
		cusses, there, provides
9	International Secu-	obama, address, russian, union, president, refugees, their,
	rity	years, march, better, pompeo, summit, security, nations,
		ukraine, pacific, has, over, across, that, government, from,
10	Dolitical Madal (D)	members, on, other
10	Political Model (Diversity)	life, said, challenge, once, shares, coming, different, past, league, major, american, muslims, participate, opportunity,
	versity)	see, sector, play, story, culture, provides, jackie, americans,
		important, together, who

	topic	words
11	Political Model (Diversity)	sports, part, disabilities, series, first, lenny, playing, wilkins, he, america, host, time, york, each, baseball, best, continued, between, as, fight, often, new, his, talks, king
12	General Public Diplomacy	special, olympics, created, rio, must, delegate, events, november, were, live, world, youth, be, highlights, no, follow, includes, small, future, that, india, around, people, over, at
13	Political Model (Civil Liberties)	secretary, freedom, importance, lesson, kerry, during, john, peace, girl, october, speech, religious, course, organization, state, talks, technology, day, at, issues, citizen, when, visit, discusses, free
14	General Public Diplomacy	leaders, washington, fellowship, young, yali, initiative, african, network, mandela, d, c, flagship, some, africa, program, institute, three, role, national, president, conservation, citizen, fund, summit, from
15	Economic Model (Entrepreneurs)	innovation, generation, entrepreneur, founder, answers, ceo, questions, business, here, facebook, gives, ask, venture, co, starting, entrepreneurship, www, chairman, director, products, tips, discusses, com, partners, advice
16	Political Model (Autocratic Critique)	venezuelan, venezuelans, have, maduro, who, expert, humanitarian, aid, fled, illegitimate, those, millions, regime, april, advice, country, countries, course, are, venezuela, any, these, continued, after, people
17	Political Model (Autocratic Critique)	she, n, trump, give, same, values, all, into, work, her, discuss, need, economic, partnership, being, their, time, iran, two, venezuela, years, region, challenges, meet, at
18	Political Model (Civil Liberties)	united, states, public, million, earth, will, chinese, green, affairs, embassy, human, support, continue, covid, long, government, our, now, countries, diplomacy, prosperity, under, we, other, every
19	Climate Change	out, find, do, climate, change, check, they, where, are, we, take, can, protect, what, work, communities, action, students, planet, doing, key, three, have, together, food
20	General Public Diplomacy	information, produced, bureau, programs, department, international, was, by, state, features, speaker, december, september, taken, chief, advisor, it, members, founder, may, americas, january, march, muslims, i

## **B.6** Robustness

Outcome	Treatment	Unadjusted	ВН	Holm	Bonferroni
Political model	China	0.000000	0.000000	0.000000	0.000000
Political model	US	0.000000	0.000000	0.000000	0.000000
Political model	Competition	0.000000	0.000000	0.000000	0.000000
Economic model	China	0.000000	0.000000	0.000000	0.000000
Economic model	US	0.000000	0.000000	0.000000	0.000000
Economic model	Competition	0.000000	0.000000	0.000000	0.000000
World leader	China	0.000000	0.000000	0.000000	0.000000
World leader	US	0.000000	0.000000	0.000000	0.000000
World leader	Competition	0.000002	0.000002	0.000002	0.000018

Table A11. Adjusted *p* values for primary outcomes using Benjamini-Hochberg, Holm-Bonferroni, and Bonferroni corrections

Note: p values rounded to nearest 6th decimal place.

Outcome	Treatment condition	p value
Political model	China	0
Political model	US	0
Political model	Competition	0
Economic model	China	0
Economic model	US	0
Economic model	Competition	0
World leader	China	0
World leader	US	0
World leader	Competition	0.00001

Table A12. Randomization inference *p* values

Note: Randomization inference conducted using 100,000 simulations. p values of 0 are not rounded as they are precisely 0 (i.e., no simulated random assignments return larger treatment effect estimates than the estimates from the actual random assignment.)

## C Survey

## **C.1** Primary outcome question wording

- 1. **Political model**: If you were to choose, which one would you like your country to adopt, the Chinese or American political model?
- 2. **Economic model**: If you were to choose, which one would you like your country to adopt, the Chinese or American economic model?
- 3. **World leader**: "Suppose either China or the United States will be the most powerful nation in the world in ten years. Would you: Strongly prefer China as world leader (1) Prefer China (2), Somewhat prefer China (3), Prefer neither China nor the United States (4), Somewhat prefer the United States (5), Prefer the United States (6), Strongly prefer the United States (7)"

## **C.2** Mechanism outcome question wording

- 1. To what extent do you agree with the following statement? The United States political system selects competent leaders.
- 2. To what extent do you agree with the following statement? The United States government delivers economic growth.
- 3. To what extent do you agree with the following statement? In the United States, there is political stability.
- 4. To what extent do you agree with the following statement? In the United States, individuals have the rights to free speech.
- 5. To what extent do you agree with the following statement? The United States government is responsive to the needs of the American people.
- 6. To what extent do you agree with the following statement? In the United States, the party in power in the central government sometimes loses.
- 7. To what extent do you agree with the following statement? The United States has a democratic system of government.
- 8. To what extent do you agree with the following statement? In the United States, all adults may vote for their national leader.

#### **D** Treatment Texts

#### **China - Political Model 1**

China's rise has attracted global attention, and many have focused on China's economic model behind its rise, which is of course important. But China's evolving political change has been somehow ignored by many. In fact, without much fanfare, China has established a system of meritocracy, or

what can be described as "selection plus election," competent leaders are selected on the basis of performance and broad support, through a vigorous process of screening, opinion surveys, internal evaluations, and various types of elections. This is much in line with the Confucian tradition of meritocracy. After all, China is the first country that invented the civil service examination system or the "KeJu" system. Today, China practices – not always successfully, but on the whole successfully - meritocracy across the whole political stratum. Criteria based on poverty eradication, job creation, local economic growth, social development, and increasingly, environmental protection are all key criteria for selecting and promoting officials. A good example of this was the profiles of China's new leaders elected at the 19th Party Congress. Six of the seven of the top leaders. members of the standing committee of the Politburo, have run provinces or province-level municipalities, many of which in terms of population or GDP are equivalent to many nations combined. Indeed, the Chinese system of meritocracy today makes it inconceivable that anyone as weak as George W. Bush or Donald Trump could ever come close to the position of the top leadership. It's not far-fetched to claim that the China model is more about leadership rather than showmanship as in the West. China's meritocratic governance challenges the stereotypical dichotomy of democracy versus autocracy. From a Chinese point of view, the nature of the state, including its legitimacy, has to be defined by its substance, that is good governance, competent leadership, and success in meeting the people's needs.

### **China - Political Model 2**

Every five years, the Chinese Communist holds a Party Congress when it clicks the "refresh" button on its health. We elect a new generation of senior leaders, called the Politburo Standing Committee. Let's face it: you hear complaints that the selection process was too secretive and involves favoritism. But what people rarely mention is that, more than many other political systems, advancement in the Chinese Communist Party is largely based on merit. To enter the Party and State Official system, you must pass China's civil service exam. This levels the playing field. Social rank does not affect test scores. For more than a thousand years, to serve in the Chinese government, high- and low-born alike had to pass exams. The modern exam lasts five hours. It includes advanced mathematics, logic, verbal skill, and world knowledge. If you pass, promotion then is based on a ten-tier ranking system. On average, it takes twenty to thirty years for an entry level "ke" or "fu ke" civil servant to become a "guo" or "fu guo" Party or state leader. Very few get near the top. Term limits also keep new ideas flowing. The Party's top job is General Secretary. For the U.S. Congress, the turnover rate in any given election is around 10% or less. One Congressman, Representative John Dingle of Michigan, got reelected 30 times and spent 60 years in the House. What about the Communist Party of China? "The turnover rate of the Central Committee maintains roughly about 62%, on average, every five years. So this, actually, turnover rate is much faster than some of the democracies around the world." As data show, Party elections can have this effect: along with term limits, elections help promote reform and help ensure new Chinese leaders rise based more on performance than on privilege.

### **China - Economic Model**

China is controversial in the West, because it's so different from the Western countries in terms of political system and economic model which actually makes China very chic today. After all, it's not China that has fallen into the financial crisis, but the United States and many Western countries. It's not the China model that has fallen out of favor but the neo-liberal model of the West. China

is doing fine, and it's already the world's largest economy calculated in purchasing power parity, with the world's largest middle class. The latest IPSOS survey showed that 90% of Chinese are reasonably satisfied with the track that China has followed, while it's 37% for the Americans, and 11% for the French. Of course, China has its share of the [sic] problems, but its overall success is beyond doubt, and we're very proud of it. So the question is how China has made it? The answer is very simple, two words: China model. First, it's guiding philosophy is called 'seeking truth from facts,' not from dogmas, whether from East or West. From examining the facts, the late leader Deng Xiaoping concluded then that neither the Soviet model nor the Western model really worked for a vast developing country desiring for [sic] modernization. Hence Beijing decided to explore its own way of development, appropriate to China's own national conditions. Second, people's livelihood-oriented. This is very important. Whether you conduct economic reform, social reform or political reform in China, they must all be down-to-earth and produce tangible benefits to the Chinese people in material terms, in cultural terms, and in other terms. This is why China has succeeded in lifting over 700 million people out of poverty, accounting for nearly 80 percent [of] global poverty eradication. This fact alone has changed China forever, and I think, has changed the world forever.

## China - Economic Model 2

China is the second-largest economy in the world, lifting so many people out of poverty. China has made very strong strides in its development, including in economic, social, technology[sic], cultural. This transformation is not possible without the visionary leadership of the Communist Party of China (CPC). [text ]China's founding party, the CPC, marks its 100th founding anniversary this year. [text]Many overseas experts say the CPC's governance experience is worth studying or emulating. The 100 years of the CPC demonstrate a history of sacrifice, but of extraordinary success, and, secondly, there are many teachings in those 100 years. The political leaders who seek to transform a society and build a future of possibilities, equality, and benefits for all, have much to learn from the CPC. China has able to eradicate extreme poverty. That is very impressive in such a vast country with a huge population of 1.4 billion people. We can see what is possible to do in a socialist society, in a society that puts people first ahead of profit. We are impressed for [sic] what China has been able to achieve, under the socialism with Chinese characteristics and the guidance of Comrade Xi Jinping and the initiatives that have been put before us. So we need to really study the Chinese experience. [text] Rapid growth. China's extraordinary growth under the leadership of the Communsit Party of China is an example for many developing countries to follow from areas such as poverty eradication as well as economic growth and development.

#### **US – Political Model 1**

Every day, Americans strive to create a more perfect union, one that our founders promised centuries ago. In the United States, freedom of speech, freedom of the press, the right of the people to peaceably assemble and the right to petition the government are protected under the law. These freedoms allow us to progress as a nation and make changes to our government that create a more just society. we fight to advance the rights and freedoms of Americans at home, we will continue to fight for those facing injustices globally. Freedom of speech is integral to a free and fair society. In the United States, artists can advocate and educate through their artwork to address injustice and strive for equality, fueling public dialogue that can lead to new and better laws. Today, many artists around the world confront censorship as authoritarian governments suppress creativity that

sparks free thinking. The U.S. advocates for the rights of all people to express themselves freely and without reprisal.

#### **US – Political Model 2**

America's diversity is the strength of our nation. It's a power that's seen by the world and is reflected in Team USA. No matter the race, identity, religion, or ability, we are stronger because of our differences. We honor what makes us unique, and we celebrate ALL of our athletes America is a nation of immigrants America is, always has been, and always will be a nation of immigrants. – Nearly every country in the world is represented among U.S. immigrants. Immigrants have influenced our food, music, and art. As people share cultures, – engage in global commerce, and develop multi-cultural friendships, we see every day how immigration makes us more connected with the world. We celebrate how the diversity of immigrants has enriched our nation.

#### **US – Economic Model 1**

(text) Bardstown, Kentucky / April 20, 2018. International businesses should invest in the United States. (text) Vivek Sarin / Executive Officer / Kentucky Cabinet for Economic Development because the United States is the largest market on the planet. The U.S. consumer base consists of an \$18 trillion GDP with 325 million consumers. (text) Brian Jones / Chief Operating Officer / Grey Construction - Manufacturers want to be close to that. My name is Hiroyuki Takigawa. I'm the president of Takigawa Corporation. (text) Hiroyuki, Takigawa / President, Takigawa Corporation Japan Takigawa Corporation started the plastic packaging business in 1949 We are exporting 40% of our production to the U.S. so we decided to have a plant in the U.S. And it was the best decision I made. U.S. is the most stable place to invest capital in the world today. (text) Terry Gill / Secretary / Kentucky Cabinet for Economic Development So our first gathering with Takigawa was here in Bardstown, (text) Kim Huston / President / Nelson County Economic Development Agency and it was like a blind date. You give them your best. You tell them everything about yourself. You learn about them, and you hope you entice them enough that they want to come back. I received about 150 site offers, and it was very difficult to choose one, (text) Takigawa U.S. Groundbreaking / April 20, 2018 but I chose Bardstown, Kentucky. – So, Takigawa is going to invest \$46 million in state-of-the-art manufacturing facility. new jobs will be created when this facility is in operation. When you land a single manufacturing company like a Takigawa, the multiplier effect in some cases can be sevenfold in terms of the additional jobs that will be created. This is the start of a wonderful new relationship with Takigawa (text) In September of 2019 Takigawa opened its Bardstown facility.

#### **US – Economic Model 2**

You are smart. You are creative. You're an inventor. You're an entrepreneur. You've started your own business. For companies large and small, the United States offers an opportunity not only to grow your business but also to protect your products and ideas. Did you know the United States is ranked the number one country for entrepreneurship (text) RANKED 1 FOR ENTREPRENEURS / Source: Global Entrepreneurship and Development Institute as one of the easiest places to do business? (text) EASY TO DO BUSINESS / Source: The World Bank Free resources are available from websites such as selectusa.gov for information about doing business here. For protecting your ideas and products, the United States as laws in place to help you. Registering in the US for a trademark or copyright or submitting an application for a Patent, even a provisional application, can put

you on the road to protecting what is yours. No one else should get the credit or the money for what you created. The United States patent and trademark office website has a lot of information available to help you decide which type of protection is best and how to start the process. Whether you have a new idea, new product, new design, or even a new plant, when you come to the United States, protections are available to inventors and entrepreneurs just like you. You've already done the hard part. You may have created something brand-new, or you may have started a business. Now there are 325 million people in the United States waiting to see what you've got.