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**THESIS**

**THE EFFECTS OF INFORMATION ENVIRONMENT  
RESTRICTIONS ON SUPPORT FOR GOVERNMENT**

by

Travis M. Florio

December 2021

Thesis Advisor:  
Second Reader:

Timothy C. Warren  
Robert E. Burks

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**THE EFFECTS OF INFORMATION ENVIRONMENT RESTRICTIONS ON  
SUPPORT FOR GOVERNMENT**

Travis M. Florio  
Major, United States Army  
BS, Western Illinois University, 2005  
JD, Ave Maria School of Law, 2008

Submitted in partial fulfillment of the  
requirements for the degree of

**MASTER OF SCIENCE IN INFORMATION STRATEGY AND POLITICAL  
WARFARE**

from the

**NAVAL POSTGRADUATE SCHOOL  
December 2021**

Approved by: Timothy C. Warren  
Advisor

Robert E. Burks  
Second Reader

Douglas A. Borer  
Chair, Department of Defense Analysis

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## **ABSTRACT**

The information age has spawned debate over how much control, if any, should be exercised by a nation state over its information environment (IE). How does a nation state's control over its IE impact domestic support for the state? Analyzing data drawn from cross-national surveys combined with press and internet freedom levels for 29 nation states revealed that there are advantages and disadvantages to controlling an IE depending on the perceptions being measured. Domestic audiences in highly restricted IEs are more willing to support externally focused state narratives framed against outside threats and actors. These same audiences tend to be more skeptical when it comes to supporting state narratives regarding internal conditions of the state itself. This is due in part to domestic audiences perceiving states as self-interested. The evidence indicates that coercive controls tend to increase this perception. Conversely, states with less restricted IEs are not as effective in rallying their populations against outside threats, but they are more successful in advancing positive narratives concerning internal state conditions. This study provides a new theoretical and empirical approach to understanding domestic effects of IE restrictions, pointing toward important weaknesses in the stances of authoritarian governments, and highlighting lines of effort that can enable more effective achievement of strategic priorities.

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## LIST OF ACRONYMS AND ABBREVIATIONS

ABC	Australian Broadcasting Corporation
AIC	Akaike information criterion
BIC	Bayesian information criterion
CCP	Chinese Communist Party
FOI	Freedom of Information
GPC	great power competition
ICT	information and communication technologies
IE	information environment
IW	information warfare
MAE	mean average error
TASS	Russian News Agency, formerly Information Telegraph Agency of Russia (ITAR-TASS)
WVS	World Values Survey

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## I. INTRODUCTION

Mass communication, in a word, is neither good nor bad; it is simply a force, and, like any other force, it can be used either well or ill. Used in one way, the press, the radio, and the cinema are indispensable to the survival of democracy. Used in another way, they are among the most powerful weapons in the dictator's armory.

—Aldous Huxley, *Brave New World*<sup>1</sup>

The information age has spawned debate over how much control, if any, should be exercised by a nation state over its information environment (IE).<sup>2</sup> Various reasons exist for controlling information: fear of regime change, promotion of nationalism, desire to stifle independent criticism, and to saturate the public with a stream of pro-government propaganda.<sup>3</sup> How does a nation state's control over its IE impact support for the state?

A contributing factor to answering this question depends on the internal or external nature of the perception being influenced. This thesis presents a quantitative study showing differences between these internally and externally focused perceptions. The evidence indicates that states seeking to rally support against external threats and increase negative perception of outsiders will find greater success by controlling the IE. I find that these IE restrictions are extremely effective for increasing willingness to fight and decreasing the trust of other nationalities. Yet this success is only applicable to external threats and perceptions of outsiders. States that strictly control their IEs will more often find the opposite effect when trying to increase positive perceptions of internal factors such as national pride and confidence in government. The same state that controls the IE to denigrate outsiders becomes more likely to fail when promoting confidence in internal affairs.

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<sup>1</sup> Aldous Huxley, *Brave New World: And, Brave New World Revisited*, 1st ed (New York: HarperCollins, 2004), 266.

<sup>2</sup> Eric Rosenbach and Katherine Mansted, "Can Democracy Survive in the Information Age?," *Belfer Center for Science and International Affairs*, October 2018, 1.

<sup>3</sup> Barbara Geddes and John Zaller, "Sources of Popular Support for Authoritarian Regimes," *American Journal of Political Science* 33, no. 2 (1989): 319, <https://doi.org/10.2307/2111150>.

A quick overview of applicable terms used in this thesis is necessary to establish a uniform understanding of my analysis:

**Information environment:** the information and communication technologies (ICT) utilized by individuals, organizations, and systems to consume and disseminate information, specifically print, radio, television, and internet forms of media.

**Information environment restrictions/controls:** the combination of state-imposed regulations and laws influencing the IE; this includes political pressures, economic influence, obstructions to access, and limits placed on users and content.

**Internally focused perceptions:** domestic views of a nation state's government, armed forces, and authority; this also includes individual perceptions of national pride and citizenship.

**Externally focused perceptions:** views held about people, places, things, and activities outside of the state; this includes perceptions with an outward focus such as trust of other nationalities, whether war is justified, concerns about terrorist attacks, and individual willingness to fight for one's country against outside forces.

I draw this distinction between internal and external perceptions because domestic audiences in controlled environments are often willing to believe a state narrative when it is framed externally and against outside threats and persons, but these same audiences tend to be more skeptical when it comes to supporting state narratives about internal conditions. The opposite is true in less restricted information environments; these audiences are more willing to believe state narratives about internal conditions and less likely to support narratives framed toward external threats.

The quantitative analysis of IEs in this thesis contributes to the previous literature pertaining to the psychology of influence while providing a theory on the effects of state-imposed IE restrictions. Understanding these effects will enable the Department of Defense and federal agencies to focus messaging efforts more narrowly, resulting in higher return on investments in the allocation of resources to information warfare (IW). This thesis also assists in the understanding of target audiences based on the condition of the IE in which they reside (open or restricted).

## A. PROBLEM

The precise effects that state controls over the IE have on support for government are currently unclear. It seems that imposing restrictions on the IE may have both advantages and disadvantages for a state. Information is increasingly linked to both offensive and defensive power, with states competing to achieve information advantage in the IE.<sup>4</sup> The 21st century has already experienced drastic elevation of information as a key element of foreign and domestic security policy—as a force multiplier, instrument for manipulation, and a tool for influencing decision-making.<sup>5</sup> IW can be used to discredit a state’s foreign and domestic policy, exacerbate ethnic conflicts, distort history, foment religious strife, demoralize a population, and even spawn civil war or genocide.<sup>6</sup>

As the U.S. shifts focus to Great Power Competition (GPC), the battle over global and domestic influence with China and Russia is at the forefront of the United States National Defense Strategy.<sup>7</sup> The digital connectivity and economic growth that technology has brought to the U.S. has also created a strategic dilemma—the more connections people make, the more opportunities available for adversaries to disrupt critical infrastructure and wreak havoc on U.S. institutions.<sup>8</sup> Who has the information advantage—states that control the IE or states that allow unrestricted information flow?

A free press has long been considered crucial to democracy—considered instrumental in ensuring public accountability of political actors.<sup>9</sup> Conversely, ideas and news accessible online are a potential source of instability in authoritarian governments, due to the potential for motivating and mobilizing the population in ways that threaten the

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<sup>4</sup> Rianne van Vuuren, “Information Warfare as Future Weapon of Mass-Disruption, Africa 2030s Scenarios,” *Journal of Futures Studies* 23, no. 1 (September 2018): 78, [https://doi.org/10.6531/JFS.201809\\_23\(1\).0006](https://doi.org/10.6531/JFS.201809_23(1).0006).

<sup>5</sup> Vuuren, 78.

<sup>6</sup> Armin Krishnan, *Military Neuroscience and the Coming Age of Neurowarfare*, Emerging Technologies, Ethics and International Affairs (New York, NY: Routledge, 2017), 185–86, <https://doi.org/10.4324/9781315595429>.

<sup>7</sup> Jim Mattis, *Summary of the 2018 National Defense Strategy of the United States of America* (Washington, DC: White House, 2018), 1, <https://apps.dtic.mil/sti/citations/AD1045785>.

<sup>8</sup> “Cyberspace Solarium Commission - Report,” 1, accessed August 31, 2020, <https://sites.google.com/solarium.gov/cyberspace-solarium-commission/report>.

<sup>9</sup> Peter Lorentzen, “China’s Strategic Censorship,” *American Journal of Political Science* 58, no. 2 (April 2014): 402, <https://doi.org/10.1111/ajps.12065>.

ruling party.<sup>10</sup> Different states have certainly endorsed different approaches based on their strategic goals, but whether a state chooses more or less IE restrictions creates both advantages and disadvantages.

Current trends do not bode well for proponents of less IE restrictions and information freedom (see Figure 1). Freedom House reported in 2020 a global trend that the internet is “splintering” toward “cyber sovereignty,” with individual governments imposing their own regulations that restrict the flow of information across national borders.<sup>11</sup> This “splintering” is not restricted to the world’s most repressive regimes, with countries across the democratic spectrum introducing greater levels of restrictions and surveillance.<sup>12</sup> Rapidly evolving technology has placed activists at a distinct disadvantage compared to state actors due to state abilities to control critical infrastructure, including cellular companies and internet service providers.<sup>13</sup> As a tool of repression, these technologies have enabled further restrictions on political and social liberties.<sup>14</sup>

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<sup>10</sup> Rosenbach and Mansted, “Can Democracy Survive in the Information Age?,” 2.

<sup>11</sup> Adrian Shahbaz and Allie Funk, “The Pandemic’s Digital Shadow,” Freedom House, 2020, <https://freedomhouse.org/report/freedom-net/2020/pandemics-digital-shadow>.

<sup>12</sup> Shahbaz and Funk.

<sup>13</sup> Marcus Michaelsen, “Exit and Voice in a Digital Age: Iran’s Exiled Activists and the Authoritarian State,” *Globalizations* 15, no. 2 (2018): 252, <https://doi.org/10.1080/14747731.2016.1263078>.

<sup>14</sup> Espen G. Rod and Nils B. Weidmann, “Empowering Activists or Autocrats? The Internet in Authoritarian Regimes,” *Journal of Peace Research* 52, no. 3 (May 2015): 338, <https://doi.org/10.1177/0022343314555782>.

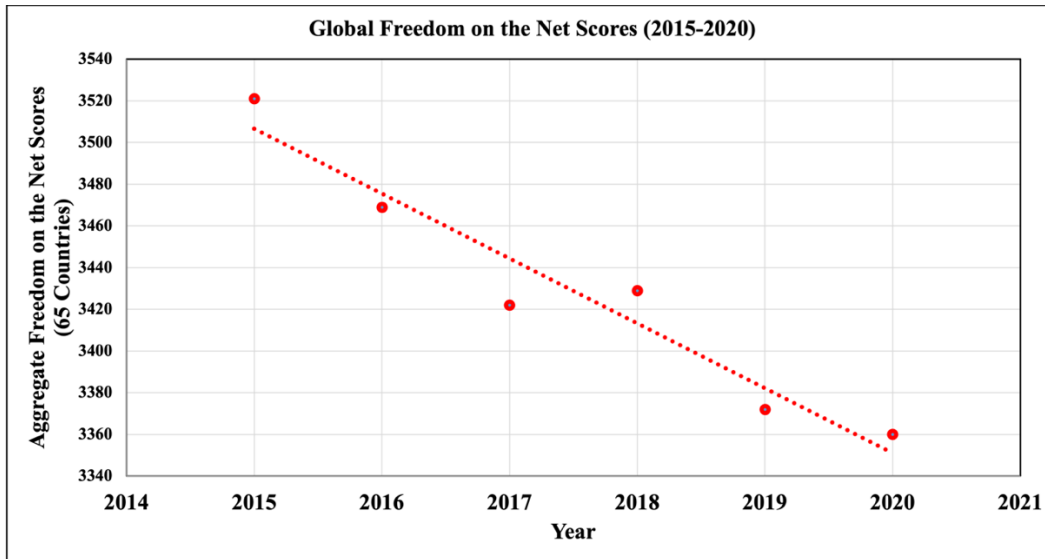


Figure 1. Downward Trend in Total Internet Freedom Scores (65 Countries).<sup>15</sup>

While many factors will undoubtedly impact national policy decisions such as controlling internet freedom and media platforms, any identifiable ramifications of such decisions should be carefully considered. If controlling the IE results in a lack of confidence in the government or armed forces, or a decrease in national pride or willingness to fight, then decision-makers need to be aware of the consequences of that decision and weigh the cost-benefits accordingly. In the U.S., public trust and confidence in the military has declined from 70% to 56% in the last three years alone.<sup>16</sup>

This thesis seeks to identify how public sentiment is influenced through restrictions imposed on the IE—particularly focused on sentiment regarding support of the state. Public opinion is of immense importance in the context of foreign policy, especially when considering the use of force, war, and peace.<sup>17</sup> Public sentiment and nationalism are vital

<sup>15</sup> Adapted from Freedom House, “Freedom on the Net Scores,” Freedom House, accessed July 28, 2021, <https://freedomhouse.org/countries/freedom-net/scores>.

<sup>16</sup> Stephen Losey, “Americans’ Trust and Confidence in the Military Is Decreasing, New Survey Finds,” *Military.com*, March 10, 2021, <https://www.military.com/daily-news/2021/03/10/americans-trust-and-confidence-military-decreasing-new-survey-finds.html>.

<sup>17</sup> Ebru Ş. Canan-Sokullu, “Domestic Support for Wars: A Cross-Case and Cross-Country Analysis,” *Armed Forces & Society* 38, no. 1 (January 2012): 118, <https://doi.org/10.1177/0095327X11398777>.

to war-related decision-making. Historical examples demonstrate that public opinion, whether hawkish or dovish, can constrain decision-makers from adopting hardline policies or force more belligerent policies on reluctant politicians.<sup>18</sup> The importance of public sentiment is not ignored by politically motivated individuals, who actively manipulate public opinion to achieve their purposes.<sup>19</sup>

Looking at survey respondents' answers to questions regarding perceptions of internal and external threats and conditions is at first glance confounding. Perhaps one would assume that factors such as willingness to fight for one's country and national pride would be closely linked—surely states with high levels of willingness to fight will have correspondingly high levels of national pride, right? Not necessarily. Russia and the U.S. score nearly identical in terms of national pride, and yet Russians indicate that they are significantly more willing to fight for their country.<sup>20</sup> A survey of more than 50 countries shows Taiwan 2nd from the bottom in terms of national pride and 6th from the top in terms of willingness to fight for country.<sup>21</sup> Similar disparities are found between willingness to fight and confidence in the armed forces.

The notion that freer populations are willing to fight to preserve the freedoms they enjoy and therefore support a government that preserves, promotes, or enables those freedoms, is not supported by the data analyzed below. Instead, I find that the key difference between these populations is the level of control exercised over the IE. When examining national survey results and comparing them with IE restrictions adopted by different countries, we can begin to see a pattern emerge based on whether the perception being measured was focused externally or internally to the state.

I hypothesize that the IE plays a key role in these survey results. States that impose strict controls on their IEs may be successful at manipulating certain perceptions in

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<sup>18</sup> Jack S. Levy, "Domestic Politics and War," *The Journal of Interdisciplinary History* 18, no. 4 (1988): 666, <https://doi.org/10.2307/204819>.

<sup>19</sup> Levy, 666.

<sup>20</sup> World Values Survey, "WVS: Who We Are," World Values Survey, accessed February 27, 2021, <https://www.worldvaluessurvey.org/WVSContents.jsp>.

<sup>21</sup> World Values Survey.

domestic audiences, but there is a diminishing return or inverse effect for other perceptions. The key difference in these perceptions is whether the focus is internal or external in nature. States with strict controls over the IE typically have populations that are more willing to fight and less trusting of other nationalities. Yet these same states have lower levels of confidence in the armed forces and decreased respect for government authority as IE restrictions increase.

Strategic decisionmakers armed with the ability to predict the ramifications of information restrictions will be better equipped to make the right decisions when seeking information advantages supporting national security priorities. While actors such as Russia and China prefer opportunities to highlight external enemies, their true weakness may lie in domestic credibility and legitimacy. The more controlled the IE, the more this weakness can be leveraged.

## **B. RESEARCH QUESTION**

The research question posed in this thesis is: How does a nation state's control over its IE impact domestic support for the state? In answering this question, a range of perceptions will be analyzed. These perceptions will be divided into two categories: internal or external. The internal perceptions are domestic views of a nation state's government, armed forces, and authority; this also includes individual perceptions of national pride and citizenship. The external perceptions are views held about people, places, things, and activities outside of the state; this includes perceptions with an outward focus such as trust of other nationalities, whether war is justified, concerns about terrorist attacks, and individual willingness to fight for one's country against outside forces.

## **C. HYPOTHESIS**

My hypothesis is that domestic audiences differentiate between influence aimed at increasing positive views of internal state conditions and influence aimed at increasing negative views focused on threats external to the state. There may be an "inside-outside" element of influence in relation to controlling the information environment as a successful state strategy. This implies that states that emplace strict controls on the IE will hold an advantage in influencing domestic populations to project negative perceptions outward.

However, I also hypothesize that this advantage will not carry over to influence regarding internal state conditions. States with strict IE controls will not benefit in influencing increased positive perceptions of the state itself. A state that controls information will be perceived as self-interested and perhaps even lying to its citizens, therefore control of the IE may be rendered ineffective and sometimes even counterproductive due to its impact on state credibility. The quad chart in Figure 2 depicts the hypothesis.

	Internally Focused Perceptions	Externally Focused Perceptions
High IE Restrictions	Disadvantage	Advantage
Low IE Restrictions	Advantage	Disadvantage

Figure 2. Hypothesis of Information Restriction Effects

A quantitative analysis of survey respondents' perceptions towards different categories of internally and externally oriented topics will provide evidence supportive or unsupportive of this hypothesis. Evaluating these perceptions with consideration of IE restrictions may show correlation based on the internal or external focus of the perception. The hypothesis predicts that it is easier for states with controlled IEs to denigrate outsiders and rally opposition towards external forces, yet these same environments are less conducive to promoting positive perceptions of internal state conditions.

## II. LITERATURE REVIEW

### A. HISTORY OF IE RESTRICTIONS

Controlling the IE to influence domestic perceptions is not without historical precedent. The link between mass communication and state loyalty is found in the literature regarding nationalism in modern Europe.<sup>22</sup> By the late eighteenth century, states increasingly relied on influence operations to encourage willingness to die for one's country.<sup>23</sup> Technological advances have enabled leaders to strategically use images, narratives, and other symbols to encourage collective group identity.<sup>24</sup> However, the state goal of controlling the flow of information is also historically at odds with freedom of speech.

Freedom of speech is inextricably tied to the founding of America. A free press has long been considered crucial to democracy—considered instrumental in ensuring public accountability of political actors.<sup>25</sup> Looking back to 1776, ten out of fourteen state constitutions and the Bill of Rights all identified freedom of speech or of the press as a fundamental right.<sup>26</sup> Justice Holmes coined the metaphor of a “marketplace of ideas” in 1919, arguing for the benefits of free trade in ideas competing amongst other ideas in a market.<sup>27</sup> It is not by coincidence that platforms such as Facebook, Twitter, YouTube, etc. often originate in the United States, where the free exchange of ideas and communication is welcomed. While these freedoms have enabled growth in the social media industry, they

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<sup>22</sup> T. Camber Warren, “Not by the Sword Alone: Soft Power, Mass Media, and the Production of State Sovereignty,” *International Organization* 68, no. 1 (January 2014): 117, <https://doi.org/10.1017/S0020818313000350>.

<sup>23</sup> Warren, 118.

<sup>24</sup> Warren, 120.

<sup>25</sup> Lorentzen, “China’s Strategic Censorship,” 402.

<sup>26</sup> Thomas G. West, “Free Speech in the American Founding and in Modern Liberalism,” *Social Philosophy & Policy* 21, no. 2 (June 2004): 322, <https://doi.org/10.1017/S0265052504212110>.

<sup>27</sup> Douglas M. Fraleigh, *Freedom of Expression in the Marketplace of Ideas* (London: SAGE, 2011), 10.

have also exposed potential hazards and vulnerabilities to adversaries seeking to exploit the open landscape of an unrestricted IE.

The 2016 United States Presidential elections and the malign activities conducted by Russia are an oft-cited example of what can go wrong in an open and loosely controlled information space. How does an unrestricted IE protect itself against internal threats, let alone external adversarial state influence operations? The current plan to oppose Russian information warfare is scattered and confusing. The Cyberspace Solarium Commission published a report in March of 2020 claiming that the status quo in cyberspace is unacceptable.<sup>28</sup> Stated by Rosenbach and Mansted: “Absent a new national security paradigm and real action, the weaponization of information technologies threatens to jeopardize democracies’ ability to govern and protect their national security, and to undermine people’s trust in democracy as a system of government.”<sup>29</sup>

While democracies struggle with this dilemma, the authoritarian answer is simple—more control. Uncontrolled systems and platforms on the internet are viewed as a threat by societies lacking the freedom of speech traditions enjoyed in the United States.<sup>30</sup> States can compensate for negative information spread on the internet by exercising more control over traditional forms of media—internet penetration has shown negative association with media independence in authoritarian regimes.<sup>31</sup>

National control over the media is an element of the classical definition of totalitarianism.<sup>32</sup> Along these lines, control over communication and repression of civil liberties like freedom of expression and information are central to the preservation of power in authoritarian systems.<sup>33</sup> During the Cold War, the Soviet Union routinely jammed

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<sup>28</sup> “Cyberspace Solarium Commission - Report,” 7.

<sup>29</sup> Rosenbach and Mansted, “Can Democracy Survive in the Information Age?”

<sup>30</sup> Robert Corn-Revere, “Caught in the Seamless Web: Does the Internet’s Global Reach Justify Less Freedom of Speech?,” *CATO Institute Briefing Papers* 71 (July 2002): 3.

<sup>31</sup> Lorentzen, “China’s Strategic Censorship,” 402.

<sup>32</sup> Lorentzen, 402.

<sup>33</sup> Michaelsen, “Exit and Voice in a Digital Age,” 251.

Western radio broadcasts in an attempt to control information within its borders.<sup>34</sup> Today, in authoritarian states like China, the state aims to directly influence the public's estimation of government success and level of support for the Chinese Communist Party (CCP) by changing the public's support for core democratic values.<sup>35</sup> Similar influence operations are underway in Russia, as the state seeks to rally support against outsiders.

We will look at a Russian case study more thoroughly later in this thesis, but for now, a quick review of the TASS Russian language website suffices to show the frequent outward focus and external nature of topics covered by the state-run media. Visiting the main webpage, [www.tass.ru](http://www.tass.ru), on October 25, 2021, we could see the following headlines (translated from Russian):

1. An Attempt to Undermine the Russian Convoy Took Place in Syria
2. The Euro Fell Below 81 Rubles for the First Time Since July 2020
3. The State Department (U.S.) Called Russia the Only Gas Supplier That is Now Able to Help Europe
4. Biden Has Criticized Trump for his Approach to Migrants, but is Following His Footsteps. Why?
5. Almost Two Months of the Energy Crisis in Europe<sup>36</sup>

These headlines are clearly aimed at garnering support for Russian positions while denigrating external powers. This thesis is focused on the influence of domestic perceptions, but it is worth noting that influence in the IE does not stop there. China is perhaps an even better example of an authoritarian regime's enormous efforts to generate influence overseas. Research regarding China's portrayal in foreign media is a growing field of study.<sup>37</sup> Reported by Time Magazine, "...the Chinese government is investing as much as \$1.3 billion annually to increase the global presence of Chinese media... China Global Television Network is televised in 140 countries and China Radio International is

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<sup>34</sup> Corn-Revere, "Caught in the Seamless Web: Does the Internet's Global Reach Justify Less Freedom of Speech?," 12.

<sup>35</sup> Narisong Huhe, Min Tang, and Jie Chen, "Creating Democratic Citizens: Political Effects of the Internet in China," *Political Research Quarterly* 71, no. 4 (March 2018): 768.

<sup>36</sup> TASS, "TASS News Agency," TASS, accessed October 25, 2021, <https://tass.ru/>.

<sup>37</sup> Tao Xie and Benjamin I. Page, "What Affects China's National Image? A Cross-National Study of Public Opinion," *The Journal of Contemporary China* 22, no. 83 (May 2013): 851, <https://doi.org/10.1080/10670564.2013.782130>.

broadcast in 65 languages.”<sup>38</sup> Analysis of these efforts and the measures of their success continues to be a focus of academic research. However, strategies for controlling the narrative both overseas and at home are not without their own challenges.

Efforts by Russia, China, and North Korea to control their domestic IEs create vulnerabilities and costs intrinsic to strictly controlled systems. The immense quantity of data uploaded by third parties on the internet distinguishes the type of communication from traditional platforms—making it harder to control on a centralized basis.<sup>39</sup> Restricting the availability of information that is so vast and spreads so quickly is much more difficult than simply refusing to publish a book because it violates the state’s narrative.<sup>40</sup> Even the smallest crack in a great firewall can have existential ramifications for authoritarian regimes.<sup>41</sup> Authoritarian reliance on information control consumes resources and causes the state to coordinate measures to deflect negative attention and regain control of the IE when confronted with news and ideas that undermine the regime.<sup>42</sup> Stopping external messages from proliferating in the IE is a constant struggle for authoritarian states.

The information flow of propaganda and how it impacts authoritarian regimes has been studied for decades. In Holger Lutz Kern and Kens Hainmueller’s paper, “Opium for the Masses: How Foreign Media Can Stabilize Authoritarian Regimes,” they tested the common perception that foreign media undermines the authority of authoritarian regimes. Contrary to conventional wisdom, they found that “...exposure to West German television increased support for the communist regime among East German teenagers and young adults.”<sup>43</sup> The unintended effects of influence operations and how propaganda will be perceived by audiences is indeed a complicated science.

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<sup>38</sup> Amy Gunia, “China’s Media Interference Is Going Global, Report Says,” *Time*, March 25, 2019, 1, <https://time.com/5557951/china-interference-global-media/>.

<sup>39</sup> Corn-Revere, “Caught in the Seamless Web: Does the Internet’s Global Reach Justify Less Freedom of Speech?,” 6.

<sup>40</sup> Corn-Revere, 6.

<sup>41</sup> Rosenbach and Mansted, “Can Democracy Survive in the Information Age?”

<sup>42</sup> Scott Fisher, “Testing the Importance of Information Control: How Does Russia React When Pressured in the Information Environment?,” *Journal of Information Warfare* 18, no. 1 (2019): 37.

<sup>43</sup> Holger Lutz Kern and Jens Hainmueller, “Opium for the Masses: How Foreign Media Can Stabilize Authoritarian Regimes,” *Political Analysis* 17, no. 4 (July 2009): 395, <https://doi.org/10.1093/pan/mpp017>.

## B. PSYCHOLOGY OF INTERNAL VS. EXTERNAL FOCUS OF INFLUENCE

Grounded in the basis of my hypothesis is the concept that people are less likely to believe a state when it is viewed as promoting its own narrow interests over more general public interests. I will review five sociological phenomena that appear to be tied to this, all of which have been studied extensively in the literature. These phenomena are the concept of in-groups/out-groups, the agreement paradox, the boomerang effect, the weight of negative propaganda, and source credibility.

The in-group/out-group sociological hypothesis, according to Levy, states that “conflict with an out-group increases the cohesion and centralization of the in-group.”<sup>44</sup> Sometimes called the “scapegoat” hypothesis, this concept has been used to explain Russian aggression in the Russo-Japanese War, Hitler’s belligerent foreign policy, and the Argentine junta attempt to seize the Falkland Islands.<sup>45</sup> While the actual act of going to war may increase internal cohesion, it is not clear that messaging negatively about external audiences increases internal positive perceptions of one’s own country and national leadership. Some scholars have argued that the impact of external war on internal cohesion depends on a nation’s pre-existing internal unity, as well as the outcome of the war.<sup>46</sup>

One of the goals of controlling an IE is to induce compliance with state mandates. The literature regarding the success of different forms of state coercion is scattered and inconsistent. Some social psychology research has shown that pressures from authority figures have generally succeeded at producing compliance.<sup>47</sup> Other, more recent studies have posited a concept termed the “agreement paradox,” meaning that pressures for agreement produce short term agreement and simultaneously undermine long term

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<sup>44</sup> Levy, “Domestic Politics and War,” 667.

<sup>45</sup> Levy, 668.

<sup>46</sup> Levy, 671.

<sup>47</sup> Lucian Conway et al., “The Agreement Paradox,” in *The Psychology of Political Polarization*, 2021, 113, <https://doi.org/10.4324/9781003042433-10>.

agreement.<sup>48</sup> These findings would suggest that there are both advantages and disadvantages to state coercion—perhaps based on the context of the message.

When people consume information, they evaluate the veracity based on the context in which the opinion or message is conveyed.<sup>49</sup> Perceptions of an influencer’s true opinions are seen as manipulative and less sincere when promoting messages consistent with some form of pressure.<sup>50</sup> Additionally, pressuring through laws and military force may achieve specific desired goals—but there is a cost.<sup>51</sup> This cost leads us to the “boomerang effect.”

The “boomerang effect” and reactance are well established psychological realities—occurring when a recipient of influence takes a position counter to that advocated by the influencer.<sup>52</sup> Threats to freedom have been shown to induce strong forms of reactance and thus rejection of the position advocated by the influencer.<sup>53</sup> Previous literature has suggested that the level of reactance is dependent upon whether the threat is internal or external to one’s group.<sup>54</sup> When it comes to persuasion, messages using especially forceful and controlling language (should, must, need) is considered to be more threatening and elicits higher reactance than less controlling language (can, could, may).<sup>55</sup> Just as important as the forcefulness of the language is the positive or negative sentiment of the message.

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<sup>48</sup> Conway et al., 115.

<sup>49</sup> Conway et al., 117.

<sup>50</sup> Conway et al., 117.

<sup>51</sup> Conway et al., 129.

<sup>52</sup> Paul J. Silvia, “Reactance and the Dynamics of Disagreement: Multiple Paths from Threatened Freedom to Resistance to Persuasion,” *European Journal of Social Psychology* 36, no. 5 (September 2006): 673, <https://doi.org/10.1002/ejsp.309>.

<sup>53</sup> Silvia, 673.

<sup>54</sup> Christina Steindl et al., “Understanding Psychological Reactance: New Developments and Findings,” *Zeitschrift Für Psychologie* 223, no. 4 (October 2015): 207, <https://doi.org/10.1027/2151-2604/a000222>.

<sup>55</sup> Steindl et al., 209.

When it comes to influencing external audiences, negative information typically outweighs positive information.<sup>56</sup> Wanta et al.'s study revealed that negative media coverage leads to negative perception of the country, but positive coverage does not lead to positive perception.<sup>57</sup> Similarly, negative events such as terrorism often have exaggerated impacts on a population in relation to their actual statistical significance; University of Sheffield professor Leif Warner coined this "a false sense of insecurity."<sup>58</sup> Further research showed "...that foreign assistance aimed at establishing media freedom in nondemocratic and developing countries may not have the desired effect and could promote domestic conflict in countries with societal intolerance."<sup>59</sup> The sentiment of the message can also be shaped by the source of the communication and the perceived credibility of that source.

Source credibility refers to the believability of the communicator, determined by the receiver's acceptance of the speaker as trustworthy.<sup>60</sup> Related to my hypothesis is the study of source credibility in terms of political persuasion. Unsurprisingly, studies have shown that greater political persuasion is achieved from higher rather than lower credibility sources.<sup>61</sup> Identifying source credibility has been complicated in the internet era due to the potential for "context deficits" regarding digital information.<sup>62</sup> It is often difficult to ascertain the true source of online communications due to the enhanced ability to remain anonymous online, thus complicating the evaluation of these environments for specific

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<sup>56</sup> Hyunjin Seo, "Online Social Relations and Country Reputation," *International Journal of Communication* 7 (February 2013): 863.

<sup>57</sup> Seo, 863.

<sup>58</sup> John Mueller, "Simplicity and Spook: Terrorism and the Dynamics of Threat Exaggeration," *International Studies Perspectives* 6, no. 2 (May 2005): 221.

<sup>59</sup> Marc L. Hutchison, Salvatore Schiano, and Jenifer Whitten-Woodring, "When the Fourth Estate Becomes a Fifth Column: The Effect of Media Freedom and Social Intolerance on Civil Conflict," *The International Journal of Press/Politics* 21, no. 2 (February 2016): 165–87, <https://doi.org/10.1177/1940161216632362>.

<sup>60</sup> Kate Kenski and Kathleen Hall Jamieson, *The Oxford Handbook of Political Communication* (Oxford University Press, 2017), 418.

<sup>61</sup> Kenski and Jamieson, 418.

<sup>62</sup> Kenski and Jamieson, 420.

news or political messages.<sup>63</sup> The source of the information becomes easier to identify in state controlled IEs where the only communication allowed is coming from the state.

### C. GAPS IN LITERATURE

The research in this thesis examines an important element not previously addressed in the literature: the relationship between state-imposed IE restrictions and differences in domestic attitudes toward internally and externally focused perceptions. While existing studies have considered the ability of authoritarian states to coerce populations, there has been little systematic work on how IE restrictions impact ability to influence. Moreover, while existing theories highlight the psychological effects of coercion or exposure to information, they offer insufficient explanation of differences in survey respondent data that would suggest why a population may be extremely willing to fight but have very little national pride. My research attempts to offer explanations for this apparent contradiction in the data.

Although the literature examines the effects of authoritarian influence on domestic populations, no study has looked at the effects of controlling the information environment specifically regarding the perceptions I analyze in this thesis. Until now, examination of state information strategies has focused largely on corruption, ethnic tensions, crime, disorder, and instability.<sup>64</sup> The existing literature on message dissemination in authoritarian states largely focuses on propaganda.<sup>65</sup> Other studies evaluate the success or failure of information strategies in influencing foreign audiences by both authoritarian and democratic regimes.

The effects of the free flow of information on regime support are contradictory between studies. Internally, information flow can cause comparisons between nations. Haifeng Huang and Yao-Yuan Yeh found that citizens in developing authoritarian

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<sup>63</sup> Kenski and Jamieson, 421.

<sup>64</sup> Sudeshna Pal, "Media Freedom and Socio-Political Instability," *Peace Economics, Peace Science and Public Policy* 17, no. 1 (January 2011): 3–3, <https://doi.org/10.2202/1554-8597.1196>.

<sup>65</sup> Haifeng Huang and Yao-Yuan Yeh, "Information from Abroad: Foreign Media, Selective Exposure, and Political Support in China," SSRN Scholarly Paper (Rochester, NY: Social Science Research Network, 2016), 1, <https://doi.org/10.2139/ssrn.2604321>.

countries often evaluate their own governments by making comparisons with Western democracies, thus highlighting the shortfalls of their own governments.<sup>66</sup> This can be of benefit or detriment to the nation state based on a variety of additional state conditions.

Studies looking at the credibility of political news information have provided mixed results.<sup>67</sup> Some studies have shown that newspapers and television are perceived as fairer and less biased than their online equivalents, while other research found that web-based news sources are perceived just as credible as traditional sources.<sup>68</sup> These studies reflect the difficulties in measuring perceptions of source credibility, which is an individually assessed concept based on one's personal history and preferences—for example, some news consumers prefer sources that are biased towards their perspective and inherently afford the source more credibility because it agrees with them.<sup>69</sup>

Analyzing 98 countries, Sudeshna Pal showed that "...media free from government control and interference is associated with lower levels of socio-political instability as measured by ethnic tensions, external and internal conflicts, crime and disorder, military participation in government, and religious tensions."<sup>70</sup> Numerous studies have also analyzed the relationship between control of media and levels of corruption. A study by Djankov et al. (2002) revealed that a greater existence of state-owned media is shown to be associated with "higher levels of corruption and lower levels of civil liberties of citizens."<sup>71</sup> Studies also indicate that the adoption of Freedom of Information (FOI) laws is "associated with an increase in perceived government corruption driven by an increase in detection of corrupt acts."<sup>72</sup> Willingness to fight for one's country has also been studied extensively in the literature. Studies have looked at the relationship between conscription

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<sup>66</sup> Huang and Yeh, 1.

<sup>67</sup> Kenski and Jamieson, *The Oxford Handbook of Political Communication*, 421.

<sup>68</sup> Kenski and Jamieson, 422.

<sup>69</sup> Kenski and Jamieson, 421.

<sup>70</sup> Pal, "Media Freedom and Socio-Political Instability," 18.

<sup>71</sup> Pal, 1.

<sup>72</sup> Krishna Chaitanya Vadlamannati and Arusha Cooray, "Transparency Pays? Evaluating the Effects of the Freedom of Information Laws on Perceived Government Corruption," *The Journal of Development Studies* 53, no. 1 (May 2016): 116, <https://doi.org/10.1080/00220388.2016.1178385>.

and supporting warfare, with conflicting results.<sup>73</sup> Some studies show it either having a modestly increasing effect on willingness to fight or a decreasing effect, while other studies claim both.<sup>74</sup>

However, there has been insufficient study of how this willingness may be influenced through effects in the IE. Moreover, while previous studies have examined government control over the media and how it impacts socio-political stability, the distinction between the internal and external nature of the message has received comparatively little attention. There is a gap in the literature concerning the connection between the in-group/out-group psychology discussed above and its relationship to state restrictions in the IE. This psychological effect drives the hypotheses presented below. Given that the level of control administered over the IE may affect internal and external factors differently, looking across multiple nations and analyzing the control exercised over the IE can shed new light on potential differences in civilian perceptions across regimes.

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<sup>73</sup> Māris Andžāns and Andris Spruds, “Three-Decade Evolution of the Willingness to Defend One’s Own Country: The Case of the Baltic States,” *Lithuanian Annual Strategic Review* 18 (December 2020): 7, <https://doi.org/10.47459/lasr.2020.18.9>.

<sup>74</sup> Andžāns and Spruds, 7.

### III. METHODS

#### A. RESEARCH APPROACH

Adopting a quantitative approach, examining data on IE restrictions across many states, allowed me to identify patterns in whether more restricted or less restricted IEs held an advantage regarding support for the government. My data covers 29 countries from 2011 to 2014. I was restricted to these 29 countries and this time frame based on the available data discussed below.

To tackle the research question, data addressing two different areas was needed: (1) state control over the information environment, and (2) civilian support and confidence in government. This required assessing the levels of state control that each nation exercises over its media and obtaining surveys regarding civilian perceptions of issues related to support of their government. Fortunately, both areas of data have already been collected and are available on an open source basis.

In assessing the level of state control exercised over an IE, I looked at both press freedom and internet freedom. Freedom House produces research and reports on several issues related to democracy, political rights, and civil liberties.<sup>75</sup> It publishes annual reports providing freedom scores for print and broadcast media freedom throughout the world.

Due to the increasing amount of information being consumed on the internet and current debates over online censorship, I supplemented the Freedom House broadcast and print data with its internet freedom data. Freedom House assigns internet freedom scores to countries based on three factors: obstacles to access, limits on content, and violations of user rights.<sup>76</sup> With this data in hand, I turned to civilian support of government metrics.

The World Values Survey (WVS) is an international research program focused on the study of social, political, economic, religious, and cultural values of people in the

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<sup>75</sup> Freedom House, “Freedom House: About Us,” Freedom House, accessed February 27, 2021, <https://freedomhouse.org/about-us>.

<sup>76</sup> Freedom House, “Freedom on the Net Scores.”

world.<sup>77</sup> The surveys cover 120 countries, representing 94.5% of the world’s population—the largest non-commercial academic social survey program in the world.<sup>78</sup> WVS is a widely respected institution; its survey data has been used by leading organizations such as *Time*, *Newsweek*, *The New York Times*, *The Economist*, and the World Bank.<sup>79</sup> I have divided survey questions into two categories based on whether the perception being measured faces outward (externally) or inward (internally).

The external survey topics are:

1. Willingness to fight for country
2. War is just
3. Trust of other nationalities
4. Fear of terrorist attack

The internal survey topics are:

1. Identifying as a national citizen
2. Confidence in armed forces
3. Respect for authority
4. National pride
5. Confidence in government<sup>80</sup>

## **B. RESEARCH DESIGN**

### **1. Information Environment Restrictions**

To determine the amount of state control over the information environment, I compiled data from Freedom House to combine internet freedom scores and press freedom

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<sup>77</sup> World Values Survey, “WVS: Who We Are.”

<sup>78</sup> World Values Survey.

<sup>79</sup> World Values Survey.

<sup>80</sup> “WVS Database,” accessed September 10, 2021, <https://www.worldvaluessurvey.org/AJPublications.jsp?CndPUTYPE=1,5&PUID=79>.

scores.<sup>81</sup> The internet freedom scores are based on three factors: obstacles to access, limits on content, and violations of user rights.<sup>82</sup> Press freedom scores are based on legal, political, and economic pressures placed on the media within a respective country. I have combined these two scores, both of which are 0-100 point scales, to assign a *Total IE Restriction* score on a 0-200 point scale to each country analyzed. 0 represents a totally free and unrestricted IE, while a score of 200 represents a completely controlled IE.

*Internet Freedom Scores + Press Freedom Scores = Total IE Restrictions*

Figure 3 depicts the global view of the states analyzed in this thesis. Each of the 29 countries in my study is colored according to the Total IE Restrictions. The graduated coloring scheme of Figure 3 depicts brighter red scores for increased levels of IE restrictions, and brighter green scores for freer IEs.

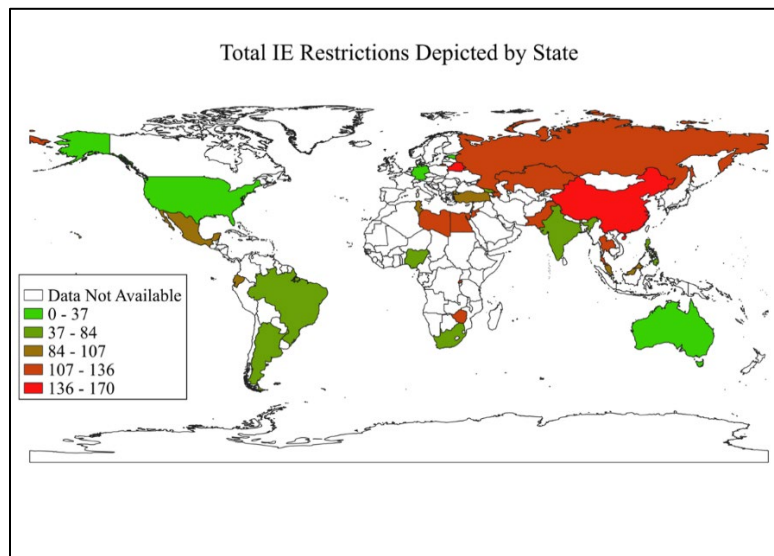


Figure 3. Map of *Total IE Restriction*.<sup>83</sup>

<sup>81</sup> Freedom House, "Freedom House: About Us," accessed February 27, 2021, <https://freedomhouse.org/about-us>.

<sup>82</sup> Freedom House, "Freedom on the Net Scores."

<sup>83</sup> Adapted from Freedom House, "Freedom House: Publication Archives," Freedom House, accessed November 12, 2021, <https://freedomhouse.org/reports/publication-archives>.

Figure 4 depicts the states I analyzed ranked by *Total IE Restrictions*. The top three most restricted states are China, Belarus, and Kazakhstan. The three least restricted states are Estonia, the U.S., and Germany.

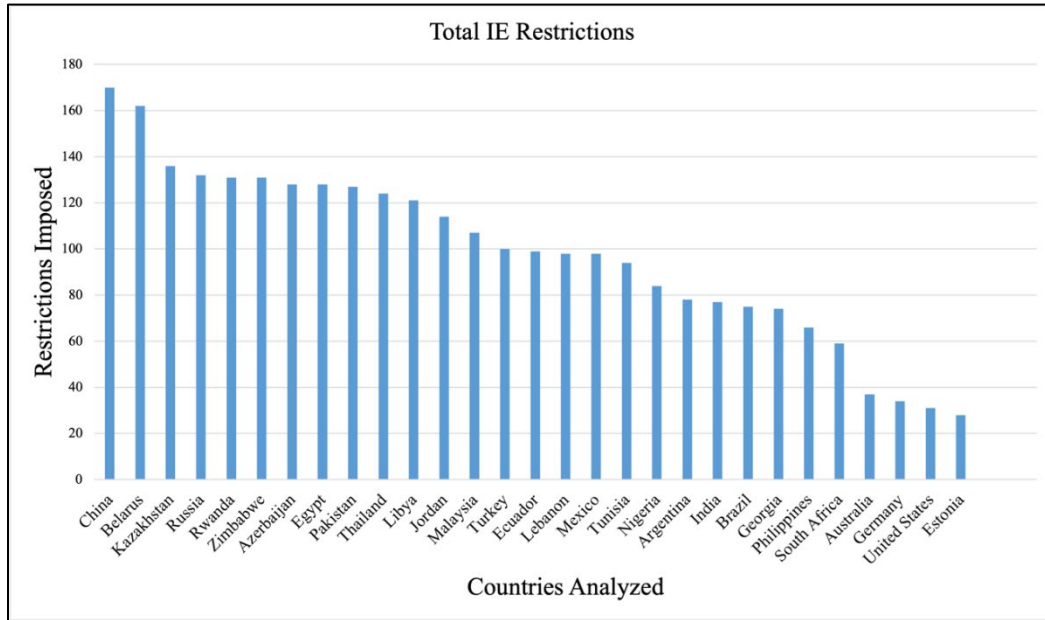


Figure 4. *Total IE Restrictions by State.*<sup>84</sup>

## 2. Perceptions Measured

I have analyzed nine survey questions available in the WVS. The following questions were taken from the WVS database, questions 1-4 correspond to externally focused perceptions, while questions 5-9 are considered internally focused perceptions.<sup>85</sup>

1. Willingness to fight for country (external focus): “Of course, we all hope that there will not be another war, but if it were to come to that, would you be willing to fight for your country? (Yes/No).” “Yes” answers are coded as 1 and “No” answers as 0.

<sup>84</sup>Adapted from Freedom House.

<sup>85</sup> “WVS Database.”

2. War is just (external focus): “Under some conditions, war is necessary to obtain justice.” “Yes” answers are coded as 1 and “No” answers as 0.
3. Trust of other nationalities (external focus): “I’d like to ask you how much you trust people from various groups. Could you tell me for each whether you trust people from this group completely, somewhat, not very much or not at all? People of another nationality.” “Trust completely” and “trust somewhat” are coded as 1. “Do not trust very much” and “do not trust at all” are coded as 0.
4. Worry regarding terrorist attack (external focus): “To what degree are you worried about the following situations? A terrorist attack.” “Very much” and “a great deal” are coded as 1. “Not much” and “not at all” are coded as 0.
5. Identifying as a national citizen (internal focus): “I see myself as citizen of the [country] nation.” “Strongly agree” and “agree” are coded as 1. “Disagree” and “strongly disagree” are coded as 0.
6. Confidence in armed forces (internal focus): “I am going to name a number of organizations. For each one, could you tell me how much confidence you have in them: is it a great deal of confidence, quite a lot of confidence, not very much confidence or none at all? The armed forces?” “A great deal” and “quite a lot” answers are coded as 1. “Not very much” and “none at all” answers are coded as 0.
7. Respect for authority (internal focus): “I’m going to read out a list of various changes in our way of life that might take place in the near future. Please tell me for each one, if it were to happen, whether you think it would be a good thing, a bad thing, or don’t you mind? Greater respect for authority.” “Good thing” and “don’t mind” are coded as 1. “Bad thing” is coded as 0.

8. National pride (internal focus): “How proud are you to be of nationality of this country?” “Very proud” and “quite proud” answers are coded as 1. “Not very proud” and “not at all proud” answers are coded as 0.
9. Confidence in government (internal focus): “I am going to name a number of organizations. For each one, could you tell me how much confidence you have in them: is it a great deal of confidence, quite a lot of confidence, not very much confidence or none at all? The government (in your nation’s capital)?” “A great deal” and “quite a lot” answers are coded as 1. “Not very much” and “none at all” answers as 0.

The unit of analysis is survey respondents, obtained from the WVS. Restrictions on the sample size are the result of merging Freedom House data and World Value Surveys data. The Freedom House internet freedom data set only analyzes 65 countries, and the WVS data comes in 3-year waves. WVS surveys were not available for 2015 and 2016. Another restriction in sample size is that survey respondents in all countries are not asked the same questions for the WVS. Accounting for these restrictions, my data covers 29 countries over a period of 2011 to 2014; depending on the model and control variables used, each model analyzes between 48,000 and 35,000 respondents.

Despite these restrictions, my data includes six of the seven most populated countries and the top three players in GPC (U.S., Russia, China).<sup>86</sup> Regarding nations with the highest military expenditures, four out of the top five countries are represented in the data.<sup>87</sup> The data set is large enough and diverse enough to draw global inferences and patterns from the results. I also introduced a number of control variables to decrease the likelihood that any correlation between my independent variable and dependent variables is attributable to other factors.

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<sup>86</sup> Worldometer, “Countries in the World by Population (2021),” Worldometer, accessed September 5, 2021, <https://www.worldometers.info/world-population/population-by-country/>.

<sup>87</sup> Wikipedia, *Wikipedia*, s.v. List of Countries by Military Expenditures, August 27, 2021, [https://en.wikipedia.org/w/index.php?title=List\\_of\\_countries\\_by\\_military\\_expenditures&oldid=1040881546](https://en.wikipedia.org/w/index.php?title=List_of_countries_by_military_expenditures&oldid=1040881546).

### 3. Control Variables

In addition to the main independent variable, *Total IE Restrictions*, control variables are included on both a country level and individual respondent level. The World Bank provided a collection of development indicators, and I have utilized GDP Per Capita (*GDPPC*) to measure a country's level of economic development and wealth.<sup>88</sup> The Center for Systemic Peace Polity V data set provided *Polity* coding for the authority characteristics of states, assigning codes based on democratic or authoritarian regime types.<sup>89</sup>

Control variables for individual respondents were also taken from the WVS data set. To control for *Gender* differences in survey responses, I coded males as 1 and females as 0. I have also controlled for income by coding respondents as *Lower Income*, *Medium Income*, or *Higher Income*. This income scale is a reduction of a self-identified 10-point scale from the WVS survey into three categories. To control for *Employment* status, I coded employed personnel as 1 and unemployed personnel as 0. The employed category includes respondents working full-time, part-time, self-employed, retired, and housewives. The unemployed category includes students and respondents identifying as unemployed. To control for age I created three categories, *Young* (1-25 yrs), *Medium* (26-45 yrs), and *Older* (46-100 yrs). I have also controlled for *Education* level by coding college educated as 1 and non-college educated as 0. The college educated category includes respondents with university degrees and some university without degrees; all other respondents are coded as non-college educated.

Due to the potential sensitive nature of some survey questions and answers, I have also applied control variables to account for a lack of trust between survey respondents and survey administrators. Respondents in authoritarian states may fear reprisal for speaking negatively about the government, or they may feel compelled to display loyalty to the state. To account for distrust of the survey administrator, I applied a control variable for the level of *Trust* respondents have for people they meet for the first time. To control for fear of state

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<sup>88</sup> "World Bank Open Data | Data," accessed June 13, 2021, <https://data.worldbank.org/>.

<sup>89</sup> "Polity Project," accessed June 13, 2021, <https://www.systemicpeace.org/polityproject.html>.

reprisal, I applied a *Surveillance* variable accounting for fear that the government is wiretapping or monitoring communications.

I have also applied two additional control variables to each model based on the question being asked to account for influence based on other perceptions held by respondents. For example, the *Willingness to Fight* model also includes controls for *National Pride* and *Confidence in Armed Forces*. Each control reduces the mean average error and attempts to control for additional factors that may influence respondents' answers.

The dependent variables I analyzed are dichotomous; therefore, a logistic regression (logit model) is the most appropriate model to address the research question. The primary models discussed in this thesis focus on the following two dependent variables: *Willingness to Fight* and *Confidence in Armed Forces*. Additional regressions were conducted for all nine survey questions, and the results are consistent with the hypothesis.

## IV. RESULTS AND DISCUSSION

### A. RESULTS: WILLINGNESS TO FIGHT (EXTERNAL)

Willingness to fight for one's country is generally perceived as a positive trait by governments, and they strive to increase this trait amongst the population.<sup>90</sup> Willingness to fight is categorized as an externally focused perception in this study. This is due to the externality of the threat; willingness to combat others outside of the state is a sentiment that can be harnessed by denigrating outsiders and exaggerating the threats that they pose. The hypothesis suggests that states with higher levels of *Total IE Restrictions* will have increased levels of *Willingness to Fight* when compared to freer, less restricted IEs. This is due to the external nature of the perception, with domestic populations willing to believe a state's narrative about outsiders and not perceiving the state as self-interested.

Table 1 reports the regression results for *Willingness to Fight*. The kernel density plot in Figure 5 depicts the spread of Yes and No answers when respondents are asked if they are willing to fight for their country. The density plot indicates that as *Total IE Restrictions* increase, more respondents claim that they are willing to fight for their country. As IE restrictions decrease, more respondents indicate that they are not willing to fight for their country. This is consistent with my hypothesis.

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<sup>90</sup> Andžāns and Spruds, "Three-Decade Evolution of the Willingness to Defend One's Own Country," 4.

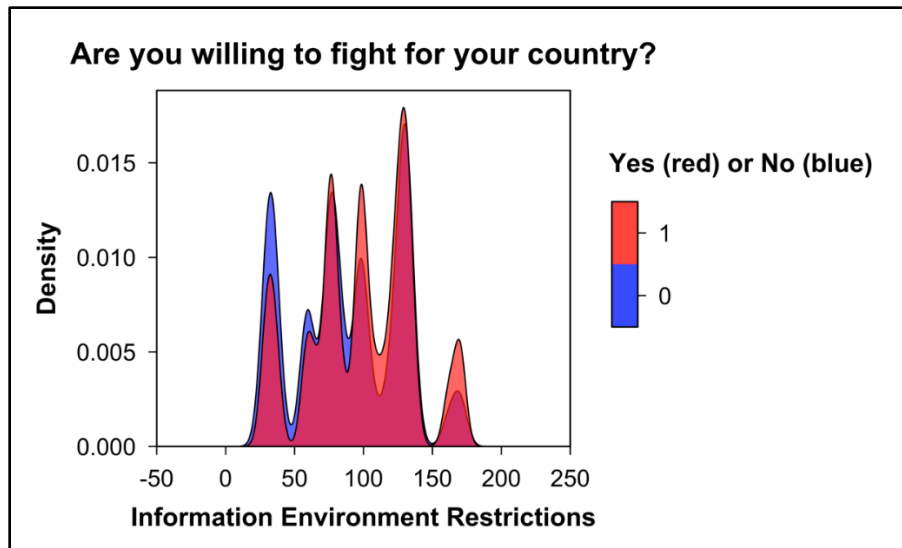


Figure 5. *Willingness to Fight Density.*<sup>91</sup>

Turning to the regression models in Table 1, Model 1 is a baseline specification with no control variables. Each subsequent model adds control variables and reduces the Mean Average Error (MAE)—culminating in Model 5. Model 2 introduces national control variables of log transformed *GDPPC* and *Polity* of state. Model 3 controls for individual respondents’ demographics of *Gender*, *Younger/Older* age, *Education*, *Higher/Lower Income*, and *Employment* status. Model 4 accounts for respondents’ truthfulness by introducing controls for *Trust* of other people and perceptions of government *Surveillance* of communications. Model 5 controls for additional variables of *National Pride* and *Confidence in Armed Forces*; these two variables were found to be correlated with willingness to fight in a study by Diez-Nicolas.<sup>92</sup>

Model 5 holds the lowest MAE, AIC, and BIC scores across all models. The coefficient for *Total IE Restrictions* is positive and statistically significant ( $p < 0.001$ ), indicating that higher levels of *Total IE Restrictions* are generally associated with increased *Willingness to Fight* for country. This is consistent with the hypothesis—states with higher levels of *Total IE Restrictions* hold an advantage over lesser restricted IEs regarding external perceptions.

<sup>91</sup>Adapted from “WVS Database.”

<sup>92</sup> Juan Diez-Nicolás, “Cultural Differences on Values About Conflict, War and Peace,” *World Values Research* 3, no. 1 (2010): 15.

Table 1. *Willingness to Fight* Regression Models.<sup>93</sup>

	Logit (1)	Logit (2)	Logit (3)	Logit (4)	Logit (5)
<i>Total IE Restrictions</i>	0.006*** (0.0003)	0.009*** (0.001)	0.010*** (0.001)	0.010*** (0.001)	0.010*** (0.001)
<i>GDPPC(log)</i>		0.203*** (0.015)	0.205*** (0.017)	0.207*** (0.017)	0.242*** (0.018)
<i>Polity</i>		0.362*** (0.016)	0.340*** (0.018)	0.318*** (0.018)	0.317*** (0.019)
<i>Gender</i>			0.688*** (0.022)	0.686*** (0.023)	0.694*** (0.024)
<i>Younger</i>			0.036 (0.032)	0.025 (0.033)	0.018 (0.035)
<i>Older</i>			-0.112*** (0.026)	-0.068** (0.027)	-0.115*** (0.028)
<i>Education</i>			0.023 (0.026)	0.018 (0.027)	0.021 (0.028)
<i>Higher Income</i>			0.031 (0.037)	0.032 (0.038)	0.013 (0.040)
<i>Lower Income</i>			0.030 (0.026)	0.027 (0.028)	0.085*** (0.029)
<i>Employment</i>			0.142*** (0.031)	0.139*** (0.032)	0.113*** (0.033)
<i>Surveillance</i>				-0.138*** (0.023)	-0.187*** (0.025)
<i>Trust</i>				-0.096*** (0.027)	-0.162*** (0.029)
<i>National Pride</i>					1.038*** (0.042)
<i>Confidence in Armed Forces</i>					0.594*** (0.026)
<i>GDPPC(log):Polity</i>		-0.037*** (0.002)	-0.035*** (0.002)	-0.033*** (0.002)	-0.033*** (0.002)
Constant	0.171*** (0.026)	-1.981*** (0.143)	-2.381*** (0.158)	-2.329*** (0.165)	-3.915*** (0.180)
Observations	45,387	45,387	40,217	37,240	35,403
MAE	0.429	0.423	0.406	0.405	0.386
RMSE	0.463	0.460	0.451	0.450	0.440
AIC	56,280	55,595	47,746	44,119	40,427
BIC	56,298	55,639	47,849	44,238	40,563
Log Likelihood	-28,138.133	-27,792.525	-23,860.867	-22,045.277	-20,197.721

Note:

\*p<0.1; \*\*p<0.05; \*\*\*p<0.01

<sup>93</sup>Adapted from “WVS Database.”

Figure 6 depicts Model 5 and the predicted probability of *Willingness to Fight* for different levels of *Total IE Restrictions*, while holding other variables constant at their means. The light red band represents the 95% confidence interval. For every 50-point increase in *Total IE Restrictions*, this figure depicts an approximate 10% increase in *Willingness to Fight*. These results indicate that states restricting their IEs will benefit from higher levels of the population that are willing to fight for the country. States with lower levels of IE restrictions will experience decreased levels of the population that are willing to fight and are thus at a disadvantage in this category.

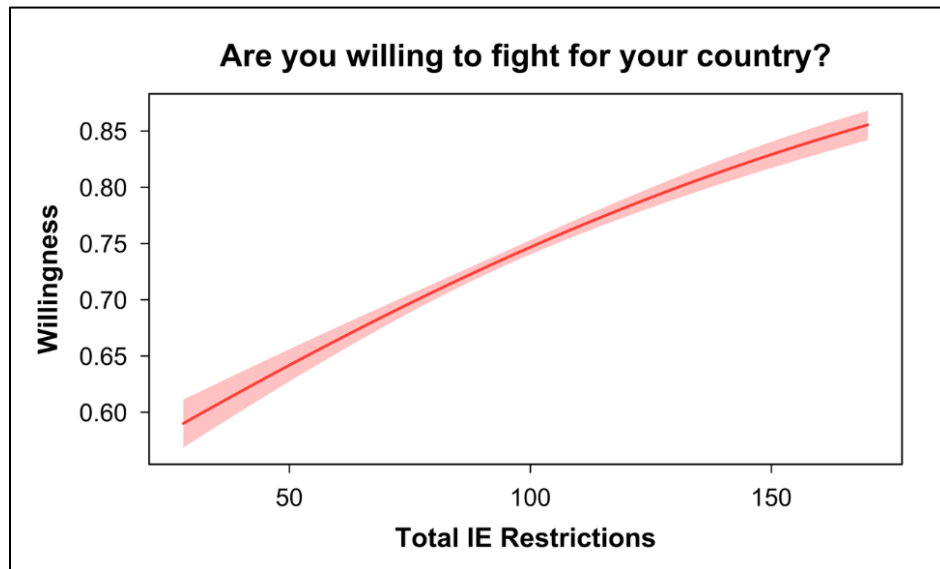


Figure 6. *Willingness to Fight* Logit Model 5.<sup>94</sup>

## B. RESULTS: CONFIDENCE IN ARMED FORCES (INTERNAL)

My hypothesis predicts that states with more *Total IE Restrictions* will result in lower levels of *Confidence in the Armed Forces* due to the internal nature of the perception. *Confidence in Armed Forces* is considered an internal measure of the state; therefore, survey respondents should be less likely to trust state-controlled media surrounding this

<sup>94</sup>Adapted from “WVS Database.”

topic. States with fewer *Total IE Restrictions* will enjoy the advantage of higher levels of *Confidence in Armed Forces* if the hypothesis is correct.

Table 2 reports the results for *Confidence in Armed Forces*. The kernel density plot in Figure 7 depicts the spread of answers when respondents are asked how confident they are in the armed forces on a scale of 1-4. I transformed this into a dichotomous variable by coding “A great deal” and “quite a lot” answers as 1. “Not very much” and “none at all” answers are coded as 0. The density plot in Figure 7 indicates that as *Total IE Restrictions* increase, the number of respondents claiming to not have *Confidence in Armed Forces* steadily increases up to around the 150 point-range, then falls dramatically. While the figure shows more “No” answers in the mid-range, we see much lower density for “No” answers in highly restricted IEs.

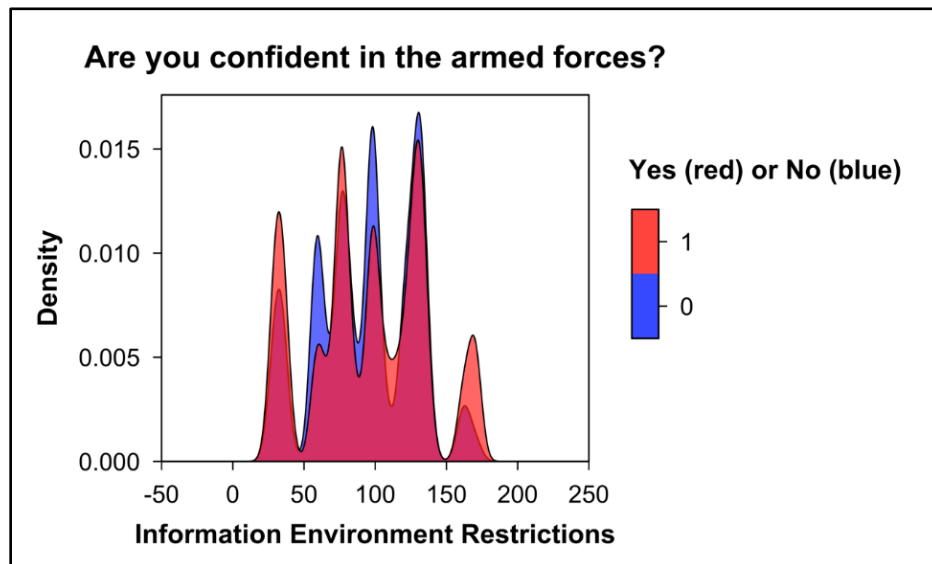


Figure 7. *Confidence in Armed Forces* Density.<sup>95</sup>

The regression models for *Confidence in Armed Forces* are in Table 2. Model 1 is a baseline specification with no control variables. Each subsequent model adds control variables and reduces the Mean Average Error (MAE)—culminating in Model 5. Model 2

<sup>95</sup>Adapted from “WVS Database.”

introduces national control variables of log transformed *GDPPC* and *Polity* of state. Model 3 controls for individual respondents' demographics of *Gender*, *Younger/Older* age, *Education*, *Higher/Lower Income*, and *Employment* status. Model 4 accounts for respondents' truthfulness by introducing controls for *Trust* of other people and perceptions of government *Surveillance* of communications. Model 5 controls for additional variables of *Willingness to Fight* and *Confidence in Government* as they may also influence respondent *Confidence in Armed Forces*.

Model 5 holds the lowest MAE, AIC, and BIC scores across all models. The coefficient for *Total IE Restrictions* is negative and statistically significant ( $p < 0.001$ ), indicating that higher levels of *Total IE Restrictions* are generally associated with lower levels of *Confidence in Armed Forces*. This is consistent with the hypothesis that internal perceptions of state conditions will suffer under restricted IEs.

Table 2. *Confidence in Armed Forces Regression Models.*<sup>96</sup>

	Logit (1)	Logit (2)	Logit (3)	Logit (4)	Logit (5)
<i>Total IE Restrictions</i>	0.001*** (0.0003)	-0.004*** (0.001)	-0.003*** (0.001)	-0.002*** (0.001)	-0.004*** (0.001)
<i>GDPPC(log)</i>		0.084*** (0.016)	0.060*** (0.017)	0.077*** (0.017)	0.025 (0.019)
<i>Polity</i>		0.092*** (0.017)	0.081*** (0.018)	0.078*** (0.019)	0.018 (0.021)
<i>Gender</i>			0.150*** (0.022)	0.144*** (0.022)	0.103*** (0.025)
<i>Younger</i>			-0.065** (0.030)	-0.045 (0.031)	-0.035 (0.034)
<i>Older</i>			0.258*** (0.026)	0.233*** (0.027)	0.240*** (0.029)
<i>Education</i>			0.017 (0.025)	0.017 (0.026)	0.098*** (0.029)
<i>Higher Income</i>			-0.069* (0.035)	-0.068* (0.037)	-0.132*** (0.040)
<i>Lower Income</i>			-0.009 (0.026)	0.004 (0.027)	0.051* (0.030)
<i>Employment</i>			0.189*** (0.029)	0.192*** (0.030)	0.149*** (0.033)
<i>Surveillance</i>				0.139*** (0.023)	0.165*** (0.025)
<i>Trust</i>				0.333*** (0.028)	0.249*** (0.031)
<i>Confidence in Government</i>					1.324*** (0.026)
<i>Willingness to Fight</i>					0.610*** (0.027)
<i>GDPPC(log):Polity</i>		-0.015*** (0.002)	-0.013*** (0.002)	-0.012*** (0.002)	-0.003 (0.002)
<i>Constant</i>	0.710*** (0.026)	0.654*** (0.145)	0.485*** (0.156)	0.112 (0.162)	-0.313* (0.178)
Observations	46,275	46,275	41,344	38,448	35,452
MAE	0.422	0.421	0.414	0.415	0.372
RMSE	0.459	0.459	0.455	0.456	0.431
AIC	56,720	56,578	49,998	46,543	39,237
BIC	56,737	56,621	50,101	46,663	39,373
Log Likelihood	-28,357.776	-28,283.796	-24,986.753	-23,257.716	-19,602.556

Note:

\*p<0.1; \*\*p<0.05; \*\*\*p<0.01

<sup>96</sup>Adapted from “WVS Database.”

Figure 8 depicts Model 5 and the predicted probability of *Confidence in Armed Forces* for different levels of *Total IE Restrictions*, while holding other variables constant at their means. The light red band represents the 95% confidence interval. For every 50-point increase in *Total IE Restrictions*, this figure depicts an approximate 5% decrease in *Confidence in Armed Forces*. These results indicate that states restricting their IEs suffer from a decrease in *Confidence in Armed Forces* as perceived by the domestic population. In contrast, states with lower levels of *Total IE Restrictions* will experience increased *Confidence in Armed Forces*. This is consistent with the internal-external hypothesis. Controlling the IE may backfire by reducing positive perceptions of internal state conditions.

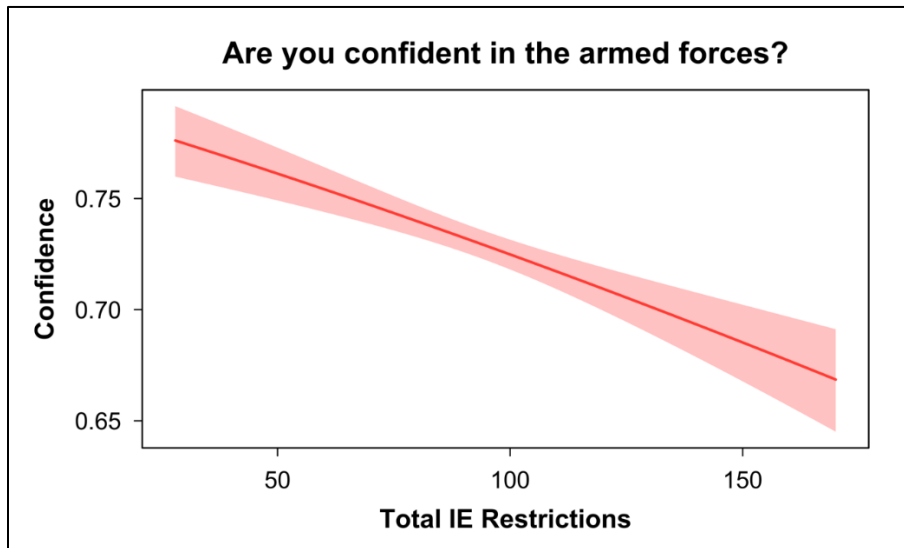


Figure 8. *Confidence in Armed Forces* Logit Model 5.<sup>97</sup>

### C. RESULTS FOR OTHER SURVEY QUESTIONS

Across the four internally focused survey questions and the five externally focused questions, respondent answers are consistent with the hypothesis that domestic audiences differentiate between influence aimed at increasing positive views of internal state

<sup>97</sup>Adapted from “WVS Database.”

conditions and influence aimed at increasing negative views focused on threats external to the state.

For the externally focused conditions, all models show a statistically significant positive relationship with *Total IE Restrictions*. States controlling their IEs contain populations with higher levels of *Willingness to Fight*, less *Trust of Other Nationalities*, more *Fear of Terrorist Attack*, and more willingness to believe that *War is Necessary*. When it comes to rallying support against outsiders, my hypothesis suggests that more *Total IE Restrictions* result in greater advantage for the state.

For internally focused conditions, controlling the IE is also consistent with the hypothesis, although the correlation is not as strong. When it comes to *Respect for Authority*, *Confidence in Armed Forces*, and identifying as a citizen (*Citizenship*), the relationship to *Total IE Restrictions* is statistically significant and negative. Therefore, states with fewer *Total IE Restrictions* are more likely to contain populations with more *Respect for Authority*, more *Confidence in Armed Forces*, and higher levels of identifying as national citizens (*Citizenship*). The remaining two internally focused survey questions regarding *National Pride* and *Confidence in Government* are statistically insignificant in relation to *Total IE Restrictions*. Taken as a whole, this evidence would indicate that less restrictions in the IE will result in more favorable advantage for the state when it comes to perceptions of internal state conditions.

## **D. TESTING THE HYPOTHESIS ON SOCIAL MEDIA**

### **1. Methods and Classification**

Beyond the regression models supportive of the hypothesis, I also sought to test the hypothesis of information restriction effects “in the wild” using text analysis. To assess the merit of the hypothesis in social media, I selected Twitter as the testing ground for a limited case study. I examined the Twitter pages of a Russian state-run news agency and an Australian news agency to see what patterns emerged from user engagement based on the internal or external nature of the hashtag. Russia and Australia were selected because they are at opposite ends of the *Total IE Restriction* scale.

Russia is the prime example of a state with a highly restricted IE, ranking in the top four highest states in terms of *Total IE Restrictions* out of 29 countries examined for my research. TASS is the largest Russian news agency and one of the largest news agencies worldwide.<sup>98</sup> It is wholly owned by the Russian government, and therefore an excellent case study of state-run media and how it is perceived by the public.<sup>99</sup> The Twitter page @tass\_agency is a Russian language Twitter account that covers a variety of national and international news.

Contrast the Russian IE with that of Australia, a state with a loosely restricted IE, ranking in the top four freest states in terms of *Total IE Restrictions* out of 29 countries examined for my research. The Australian Broadcasting Corporation (ABC) is Australia's national broadcaster, publicly owned and politically independent, providing radio, television, online, and mobile services throughout metropolitan and regional Australia.<sup>100</sup> The Twitter page @ABCAustralia is an English language Twitter account that covers a variety of national and international news impacting Australians.

To measure engagement with internal or external topics, I first had to establish ground rules for what defines an internal or external hashtag. With an unlimited amount of hashtag possibilities, some subjectivity in these classifications was unavoidable. Selected hashtags had to be disregarded due to their potential for ambiguity in interpretation. For example, a generic hashtag like "FINANCE" could refer to domestic or international finance; therefore, it must be disregarded. Any hashtags not falling clearly into one of the below two categories was omitted from this case study.

Internal hashtags: All things domestic, to include domestic organizations, policies, politicians, national history, current events, television, and entertainment.

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<sup>98</sup> Wikipedia, s.v. "TASS," October 8, 2021, <https://en.wikipedia.org/w/index.php?title=TASS&oldid=1038099337>.

<sup>99</sup> Wikipedia.

<sup>100</sup> Wikipedia, s.v. Australian Broadcasting Corporation, October 22, 2021, [https://en.wikipedia.org/w/index.php?title=Australian\\_Broadcasting\\_Corporation&oldid=1051236453](https://en.wikipedia.org/w/index.php?title=Australian_Broadcasting_Corporation&oldid=1051236453).

External hashtags: All things foreign and international, to include foreign organizations, policies, politicians, historical events, current events, television, and entertainment.

## **2. Russian Case Study**

The objective of my text analysis was to identify trends in how followers of TASS interact with TASS tweets based on the internal or external nature of the tweet. If the hypothesis is correct, external issues should receive a higher rate of interaction than internal issues. This is due to the public tendency of being more trustworthy of government-controlled media when it is addressing external topics as opposed to skepticism of commentary made about internal state conditions.

Text analysis was performed on all Twitter activity conducted by TASS, @tass\_agency, from 2011 to early 2021. Out of 571 unique hashtags, the most used hashtags were identified using R and translated to determine internal or external focus. Hashtags that were neutral or could be considered both internal and external were disregarded. The top five most used internal and external hashtags were then analyzed for the average number of retweets, likes, and replies. The hypothesis predicted that external hashtags should have higher levels of average engagement than internal hashtags.

Of the ten hashtags analyzed for engagement, the top four hashtags were externally focused topics. The bottom four measured by engagement were internally focused. Figure 9 depicts these results, while the Appendix contains additional data and hashtag translations. I also conducted a two-sample unequal variance t-test to determine whether total engagement differences between internal and external hashtags are statistically significant. Testing the difference in mean total engagement the p-value was 0.022, allowing us to reject the null hypothesis of equal engagement with strong statistical confidence. Although the sample size is small, it does lend credibility to the hypothesis that states imposing restricted IEs will hold information advantage surrounding narratives of external focus. After testing the hypothesis in a highly restricted environment, I turned to a freer, less restricted IE—down under.

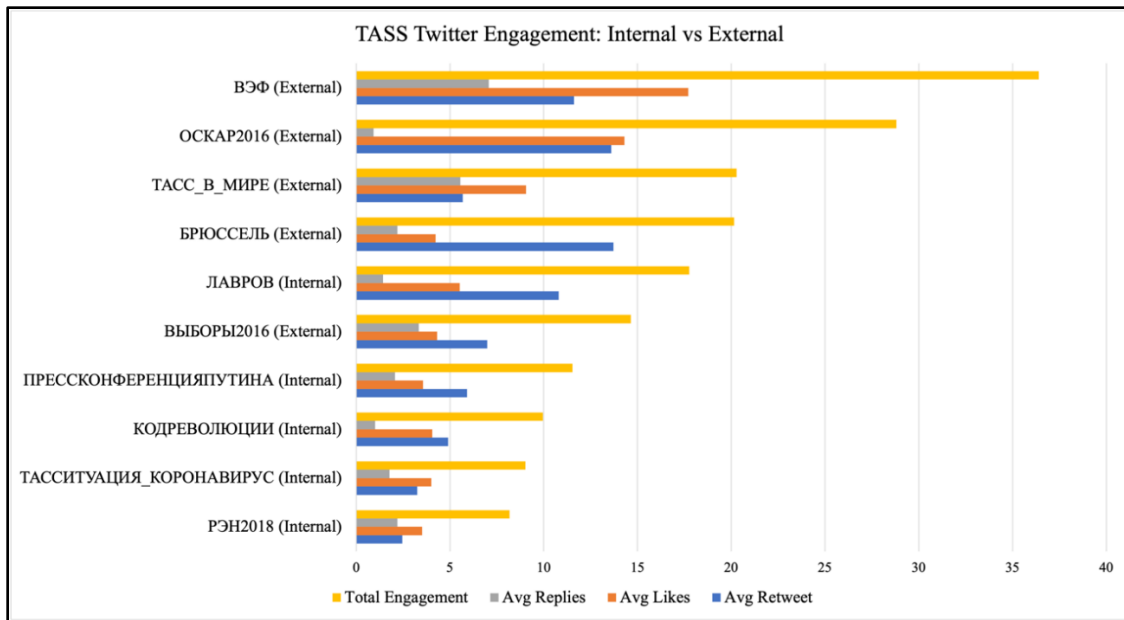


Figure 9. Testing the Hypothesis Utilizing TASS Engagement.<sup>101</sup>

### 3. Australian Case Study

Similar to the text analysis conducted for the Russian news agency TASS, my objective was to identify trends in how followers of ABC interact with ABC tweets based on the internal or external nature of the tweet. If the hypothesis is correct, internal issues should receive a higher rate of interaction than external issues—opposite of the TASS results. This is due to domestic audiences being more trustworthy of government communication received in less restricted IEs.

Text analysis was performed on all Twitter activity conducted by ABC, @ABCAustralia, from 2014 to late 2021. Out of 1,453 unique hashtags, the most used hashtags were identified using R and classified to determine internal or external focus. Hashtags that were neutral or could be considered both internal and external were disregarded. The top five most used internal and external hashtags were then analyzed for the average number of retweets, likes, and replies. The hypothesis predicts that internally focused hashtags will have higher levels of engagement than external topics.

<sup>101</sup> Adapted from ТАСС, “ТАСС (@tass\_agency) Twitter,” Twitter, accessed November 12, 2021, [https://twitter.com/tass\\_agency](https://twitter.com/tass_agency).

Of the ten hashtags analyzed for engagement, three of the top four hashtags were internally focused topics. The bottom four measured by engagement include a mixture of both. Figure 10 depicts these results, while the Appendix contains additional data on retweets, likes, and replies. Unlike the Russian TASS t-test, in this case the total engagement differences between internal and external hashtags are statistically insignificant. Testing the difference in mean total engagement, the p-value was 0.38. This suggests that people living in less restricted IEs are less inclined to differentiate between internal and external topics in terms of social media engagement. Recognizing that the sample size is small, I recommend that future studies expand the scope of analysis to cover more Twitter handles and more hashtags.

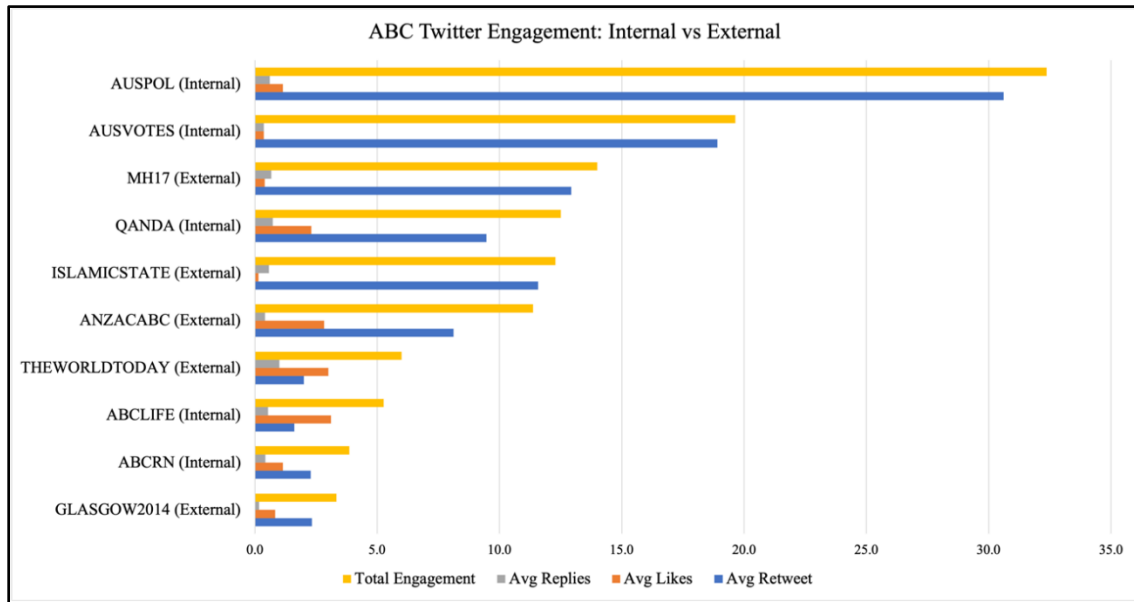


Figure 10. Testing the Hypothesis Utilizing ABC Engagement.<sup>102</sup>

#### 4. Case Study Comparison

Despite the small case study sample size, we can begin to see patterns emerge when comparing the results of TASS with ABC. Figure 11 depicts a quad chart arrayed like the

<sup>102</sup>Adapted from Australian Broadcasting Corporation, “ABC News (@abcnews) Twitter,” Twitter, accessed November 12, 2021, <https://twitter.com/abcnews>.

hypothesis of information restriction effects in Figure 2. Note that the hypothesis predicts an advantage for the strictly controlled IE in external engagement. This is supported by the t-test results and can be visualized in the top right quadrant of Figure 11. The hypothesis also predicts an advantage for the less restricted IE in internal engagement. No significant relationship was found in the t-test of ABC engagement levels, but the mean of TASS internal engagement (11.3) is lower than ABC internal engagement (14.7), which is the opposite of the pattern observed for external engagement.

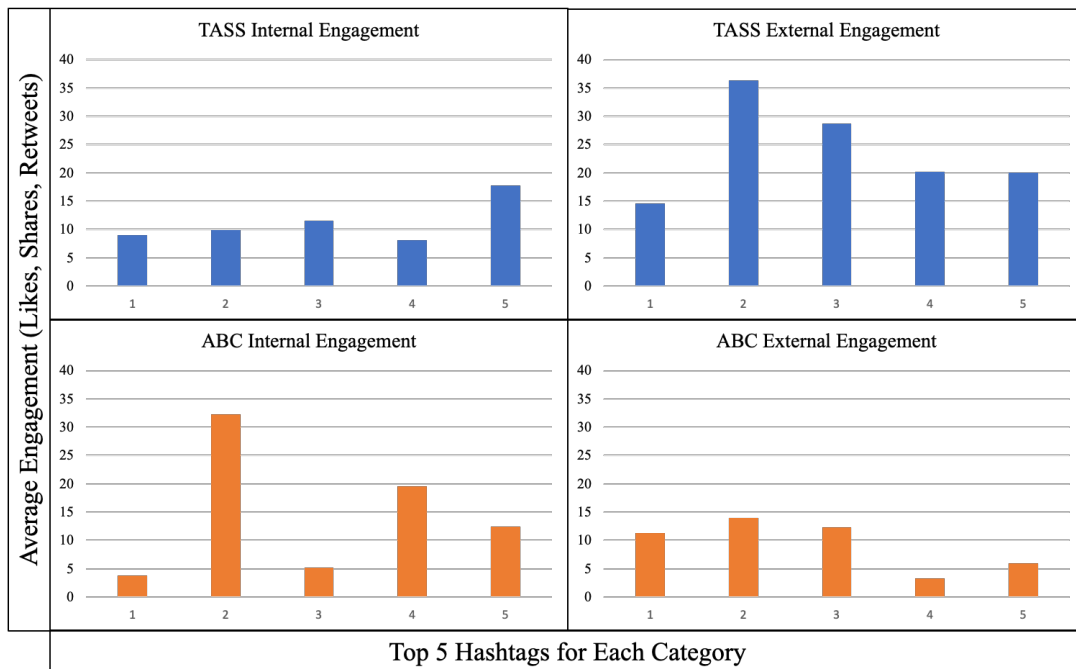


Figure 11. TASS<sup>103</sup> and ABC<sup>104</sup> Case Study Comparison.

<sup>103</sup>Adapted from TACC, “TACC (@tass\_agency) Twitter.”

<sup>104</sup>Adapted from Australian Broadcasting Corporation, “ABC News (@abcnews) Twitter.”

## V. CONCLUSIONS

### A. KEY TAKEAWAYS

The primary takeaway from this analysis is that audiences differentiate between internally and externally focused perceptions with respect to state influence. There are advantages and disadvantages to controlling an IE depending on the perception being influenced. States that emplace strict controls on the IE hold an advantage in influencing domestic populations to project negative perceptions outward. However, this advantage does not carry over to influence regarding internal state conditions, and in some cases even backfires.

States seeking to increase willingness to fight, or apprehension of outsiders can do so by increasing the number of restrictions placed on the IE. Mass media technologies leveraged by the state to convey images, narratives, and messages can be used to produce voluntary acquiescence with state directives.<sup>105</sup> The research in this thesis suggests that controlling the IE increases a state's ability to influence the civilian population regarding factors external to state conditions. The TASS case study displays the effect on information proliferation from a highly controlled state IE like Russia. Social media users in these environments are more likely to engage and share state information when it is focused on external topics; they are less likely to engage and share topics concerning internal state conditions.

States seeking to increase respect for authority, confidence in the armed forces, and the number of people that identify as citizens, will be advantaged by operating under less restricted IEs. The data in this thesis indicates that no amount of IE restrictions can overcome the psychological rejection of state narratives when the state is promoting its own interests.

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<sup>105</sup> T. Camber Warren, "Not by the Sword Alone: Soft Power, Mass Media, and the Production of State Sovereignty," *International Organization* 68, no. 1 (January 2014): 112, <https://doi.org/10.1017/S0020818313000350>.

## B. AREAS OF FURTHER STUDY

This study was limited by data availability, and the scope was narrowed to four external topics and five internal topics. The number of factors that could be analyzed with *Total IE Restrictions* as the independent variable is certainly vast. Expansion of this study could look at a variety of additional internal and external factors, and perhaps create a new category of neutral factors as a control.

It is worth noting that no statistically significant relationship was found between controlling the IE and survey respondents' *Confidence in Armed Forces* or *National Pride*. The complicated psychology that goes into survey responses provides countless reasons for why this could be—answers could be based in culture, current events, religion, history, etc. I was unable to control for every possible variable that goes into human decision-making. This study could be expanded by identifying why these two areas appear neutral in the data set.

My case studies of social media were limited to one Russian news Twitter handle and one Australian news Twitter handle. The potential for additional case studies testing the hypothesis of this thesis is quite large. While I looked at a highly restricted IE example, additional research could look at a wider array of examples representing different IE restriction scores. I chose to analyze Twitter data, but the same internal/external analysis could be conducted of any media platform.

## C. IMPLICATIONS

As the IE grows increasingly complicated and pervasive, domestic mindsets, positions, and behaviors shaped therein will continue to grow in strategic importance.<sup>106</sup> Study of IEs throughout the world can reveal practices and principles that are worth emulating or avoiding here in the United States.<sup>107</sup> One aim of this research is to enable decision-makers to make more informed decisions when assessing their own IEs and those

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<sup>106</sup> Christopher Paul et al., *Lessons from Others for Future U.S. Army Operations in and Through the Information Environment*, RR-1925/1-A (Santa Monica, CA: RAND Corporation, 2018), ix, [https://www.rand.org/pubs/research\\_reports/RR1925z1.html](https://www.rand.org/pubs/research_reports/RR1925z1.html).

<sup>107</sup> Paul et al., xiii.

of their opponents, in order to achieve desired results related to support of government narratives.

The U.S. military often fails to predict the future correctly.<sup>108</sup> These failures have historically stemmed from not thinking comprehensively about the factors that shape conflict and failing to predict their interaction with one another.<sup>109</sup> The DOD may currently be shifting focus to great power competition, but the battlefield of the future will not be dominated by conventional forces and military overmatch—the IE will become the most active battlespace in which the U.S. will defend its interests. We are just scratching the surface of state competition in the IE, and the ability to influence at home and abroad may determine the outcome of future wars.

The current U.S. strategy of limited restrictions on the IE places us at a disadvantage to countries like China and Russia in terms of willingness to fight and support for wars abroad. Whether this trade-off is worth holding an advantage with respect to authority and confidence in the armed forces is a debate for policy makers outside the scope of this thesis. Regardless, U.S. influence campaigns should focus on exploitable areas when dealing with adversaries that operate under strictly controlled IEs. The results presented here indicate that these exploitable areas are domestic credibility and legitimacy.

Counter-narratives should also focus on authoritarian narratives that exaggerate external threats and aggression aimed at their domestic populations. Particularly on social media, as in the Russian Twitter case study above, the U.S. should seek out methods of reducing the propagation of adversary state-sponsored messages. With the understanding that externally focused topics coming from Russian media will propagate at higher rates than internal messages, counter narrative resources should be allocated accordingly. Regardless of the course taken by the U.S. government over its own IE, the DOD needs to focus on maintaining placement and access to apparent closed systems like that of the great Chinese firewall if it wants any hope of exercising influence in the areas where controlled IEs appear to hold an advantage.

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<sup>108</sup> Raphael Cohen et al., *The Future of Warfare in 2030: Project Overview and Conclusions* (RAND, 2020), ix, <https://doi.org/10.7249/RR2849.1>.

<sup>109</sup> Cohen et al., ix.

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## **APPENDIX. DATA**

The data enclosed includes all WVS questions analyzed in this thesis and the corresponding logit regressions. Following the regression tables are breakdowns of the Twitter data used in the case studies. I have included translations for the Russian language hashtags, as well as descriptions of all hashtags. The t-tests assuming unequal variance are also located with the Twitter data. All regressions were conducted in R, and the t-tests were conducted in Excel.

	<i>Willingness to Fight</i>				
	Logit (1)	Logit (2)	Logit (3)	Logit (4)	Logit (5)
<i>Total IE Restrictions</i>	0.006*** (0.0003)	0.009*** (0.001)	0.010*** (0.001)	0.010*** (0.001)	0.010*** (0.001)
<i>GDPPC(log)</i>		0.203*** (0.015)	0.205*** (0.017)	0.207*** (0.017)	0.242*** (0.018)
<i>Polity</i>		0.362*** (0.016)	0.340*** (0.018)	0.318*** (0.018)	0.317*** (0.019)
<i>Gender</i>			0.688*** (0.022)	0.686*** (0.023)	0.694*** (0.024)
<i>Younger</i>			0.036 (0.032)	0.025 (0.033)	0.018 (0.035)
<i>Older</i>			-0.112*** (0.026)	-0.068** (0.027)	-0.115*** (0.028)
<i>Education</i>			0.023 (0.026)	0.018 (0.027)	0.021 (0.028)
<i>Higher Income</i>			0.031 (0.037)	0.032 (0.038)	0.013 (0.040)
<i>Lower Income</i>			0.030 (0.026)	0.027 (0.028)	0.085*** (0.029)
<i>Employment</i>			0.142*** (0.031)	0.139*** (0.032)	0.113*** (0.033)
<i>Surveillance</i>				-0.138*** (0.023)	-0.187*** (0.025)
<i>Trust</i>				-0.096*** (0.027)	-0.162*** (0.029)
<i>National Pride</i>					1.038*** (0.042)
<i>Confidence in Armed Forces</i>					0.594*** (0.026)
<i>GDPPC(log):Polity</i>		-0.037*** (0.002)	-0.035*** (0.002)	-0.033*** (0.002)	-0.033*** (0.002)
Constant	0.171*** (0.026)	-1.981*** (0.143)	-2.381*** (0.158)	-2.329*** (0.165)	-3.915*** (0.180)
Observations	45,387	45,387	40,217	37,240	35,403
MAE	0.429	0.423	0.406	0.405	0.386
RMSE	0.463	0.460	0.451	0.450	0.440
AIC	56,280	55,595	47,746	44,119	40,427
BIC	56,298	55,639	47,849	44,238	40,563
Log Likelihood	-28,138.133	-27,792.525	-23,860.867	-22,045.277	-20,197.721

Note:

\* p<0.1; \*\* p<0.05; \*\*\* p<0.01<sup>110</sup>

	<i>War is Necessary</i>				
	Logit (1)	Logit (2)	Logit (3)	Logit (4)	Logit (5)
<i>Total IE Restrictions</i>	-0.003*** (0.0003)	-0.00002 (0.001)	0.001** (0.001)	0.002*** (0.001)	0.002*** (0.001)
<i>GDPPC(log)</i>		-0.0001 (0.015)	0.035** (0.017)	0.064*** (0.017)	0.061*** (0.018)
<i>Polity</i>		0.220*** (0.017)	0.198*** (0.018)	0.199*** (0.019)	0.168*** (0.019)
<i>Gender</i>			0.424*** (0.021)	0.436*** (0.021)	0.353*** (0.022)
<i>Younger</i>			0.038 (0.029)	0.043 (0.030)	0.036 (0.031)
<i>Older</i>			-0.090*** (0.024)	-0.102*** (0.025)	-0.084*** (0.026)
<i>Education</i>			0.099*** (0.024)	0.096*** (0.025)	0.103*** (0.026)
<i>Higher Income</i>			0.209*** (0.033)	0.208*** (0.035)	0.201*** (0.036)
<i>Lower Income</i>			-0.254*** (0.025)	-0.232*** (0.026)	-0.238*** (0.027)
<i>Employment</i>			-0.082*** (0.028)	-0.077*** (0.029)	-0.100*** (0.031)
<i>Surveillance</i>				0.099*** (0.022)	0.106*** (0.024)
<i>Trust</i>				0.222*** (0.025)	0.254*** (0.026)
<i>Fear of Terrorist Attack</i>					-0.039 (0.027)
<i>Willingness to Fight</i>					0.602*** (0.025)
<i>GDPPC(log):Polity</i>		-0.020*** (0.002)	-0.017*** (0.002)	-0.016*** (0.002)	-0.013*** (0.002)
<i>Constant</i>	-0.090*** (0.025)	-0.569*** (0.142)	-1.153*** (0.154)	-1.633*** (0.161)	-1.885*** (0.169)
Observations	46,111	46,111	41,015	38,183	35,752
MAE	0.478	0.471	0.463	0.462	0.456
RMSE	0.489	0.485	0.481	0.480	0.478
AIC	61,865	61,213	53,749	49,936	46,365
BIC	61,882	61,257	53,853	50,056	46,500
Log Likelihood	-30,930.419	-30,601.431	-26,862.695	-24,954.141	-23,166.335

Note:

\*p<0.1; \*\*p<0.05; \*\*\*p<0.01<sup>111</sup>

	<i>Trust of Other Nationalities</i>				
	Logit (1)	Logit (2)	Logit (3)	Logit (4)	Logit (5)
<i>Total IE Restrictions</i>	-0.012*** (0.0003)	-0.015*** (0.001)	-0.015*** (0.001)	-0.013*** (0.001)	-0.014*** (0.001)
<i>GDPPC(log)</i>		0.342*** (0.017)	0.288*** (0.018)	0.437*** (0.020)	0.436*** (0.020)
<i>Polity</i>		0.007 (0.018)	0.011 (0.019)	0.128*** (0.021)	0.127*** (0.021)
<i>Gender</i>			-0.004 (0.021)	-0.026 (0.024)	-0.023 (0.024)
<i>Younger</i>			-0.034 (0.030)	0.009 (0.034)	0.011 (0.035)
<i>Older</i>			0.202*** (0.025)	0.182*** (0.028)	0.180*** (0.028)
<i>Education</i>			0.392*** (0.024)	0.433*** (0.027)	0.432*** (0.028)
<i>Higher Income</i>			0.098*** (0.035)	-0.012 (0.039)	-0.007 (0.040)
<i>Lower Income</i>			-0.125*** (0.026)	-0.072** (0.029)	-0.070** (0.029)
<i>Employment</i>			-0.092*** (0.029)	-0.049 (0.033)	-0.046 (0.034)
<i>Surveillance</i>				0.034 (0.024)	0.040 (0.025)
<i>Trust</i>				2.020*** (0.028)	2.016*** (0.029)
<i>National Pride</i>					0.069 (0.044)
<i>Citizenship</i>					-0.005 (0.055)
<i>GDPPC(log):Polity</i>		-0.008*** (0.002)	-0.008*** (0.002)	-0.022*** (0.002)	-0.022*** (0.003)
Constant	0.536*** (0.026)	-1.870*** (0.155)	-1.513*** (0.166)	-3.458*** (0.186)	-3.465*** (0.198)
Observations	46,170	46,170	40,953	38,305	37,473
MAE	0.447	0.434	0.433	0.366	0.365
RMSE	0.472	0.466	0.465	0.428	0.427
AIC	58,997	57,711	51,091	42,064	41,051
BIC	59,015	57,755	51,195	42,184	41,188
Log Likelihood	-29,496.575	-28,850.521	-25,533.702	-21,018.127	-20,509.738

Note:

\*p<0.1; \*\*p<0.05; \*\*\*p<0.01<sup>112</sup>

<i>Fear of Terrorist Attack</i>					
	Logit (1)	Logit (2)	Logit (3)	Logit (4)	Logit (5)
<i>Total IE Restrictions</i>	0.009*** (0.0003)	0.008*** (0.001)	0.009*** (0.001)	0.006*** (0.001)	0.007*** (0.001)
<i>GDPPC(log)</i>		-0.315*** (0.018)	-0.285*** (0.018)	-0.270*** (0.021)	-0.229*** (0.022)
<i>Polity</i>		-0.015 (0.019)	0.051*** (0.020)	0.019 (0.022)	0.033 (0.023)
<i>Gender</i>			-0.164*** (0.022)	-0.228*** (0.024)	-0.237*** (0.025)
<i>Younger</i>			0.018 (0.031)	-0.046 (0.035)	-0.045 (0.036)
<i>Older</i>			0.048* (0.025)	0.116*** (0.028)	0.100*** (0.029)
<i>Education</i>			0.064** (0.025)	0.073*** (0.028)	0.059** (0.029)
<i>Higher Income</i>			-0.070** (0.035)	-0.144*** (0.040)	-0.155*** (0.041)
<i>Lower Income</i>			0.176*** (0.026)	0.105*** (0.029)	0.122*** (0.031)
<i>Employment</i>			-0.016 (0.030)	0.025 (0.034)	0.016 (0.035)
<i>Surveillance</i>				-1.818*** (0.026)	-1.836*** (0.028)
<i>Trust</i>				-0.246*** (0.028)	-0.268*** (0.032)
<i>Trust of Other Nationalities</i>					-0.059** (0.029)
<i>Confidence in Armed Forces</i>					0.290*** (0.027)
<i>GDPPC(log):Polity</i>		0.005** (0.002)	-0.002 (0.002)	-0.002 (0.003)	-0.004 (0.003)
<i>Constant</i>	-0.067*** (0.026)	2.643*** (0.160)	2.375*** (0.169)	3.808*** (0.194)	3.315*** (0.202)
Observations	47,451	47,451	42,162	39,522	36,751
MAE	0.426	0.418	0.408	0.349	0.344
RMSE	0.461	0.457	0.451	0.418	0.415
AIC	58,566	57,687	50,436	41,330	37,986
BIC	58,584	57,731	50,540	41,450	38,122
Log Likelihood	-29,281.130	-28,838.542	-25,206.041	-20,651.115	-18,977.147

Note:

\*p<0.1; \*\*p<0.05; \*\*\*p<0.01<sup>113</sup>

	<i>Citizenship</i>				
	Logit (1)	Logit (2)	Logit (3)	Logit (4)	Logit (5)
<i>Total IE Restrictions</i>	0.002*** (0.001)	-0.006*** (0.001)	-0.006*** (0.001)	-0.006*** (0.001)	-0.006*** (0.001)
<i>GDPPC(log)</i>		0.130*** (0.030)	0.065** (0.033)	0.042 (0.033)	0.244*** (0.036)
<i>Polity</i>		0.237*** (0.033)	0.232** (0.035)	0.202*** (0.036)	0.245*** (0.038)
<i>Gender</i>			-0.031 (0.043)	-0.017 (0.044)	-0.011 (0.048)
<i>Younger</i>			0.009 (0.058)	-0.007 (0.060)	0.023 (0.064)
<i>Older</i>			0.268*** (0.052)	0.285*** (0.054)	0.326*** (0.058)
<i>Education</i>			0.055 (0.050)	0.075 (0.052)	0.183*** (0.056)
<i>Higher Income</i>			-0.265*** (0.064)	-0.219*** (0.067)	-0.347*** (0.071)
<i>Lower Income</i>			0.118** (0.052)	0.094* (0.054)	0.197*** (0.059)
<i>Employment</i>			0.316*** (0.056)	0.312*** (0.057)	0.254*** (0.061)
<i>Surveillance</i>				0.110** (0.045)	0.089* (0.048)
<i>Trust</i>				-0.355*** (0.049)	-0.421*** (0.052)
<i>National Pride</i>					1.889*** (0.055)
<i>Confidence in Government</i>					0.233*** (0.049)
<i>GDPPC(log):Polity</i>		-0.033*** (0.004)	-0.032*** (0.004)	-0.028*** (0.004)	-0.035*** (0.005)
Constant	2.679*** (0.052)	2.578*** (0.275)	2.829*** (0.299)	3.027*** (0.309)	-0.248 (0.338)
Observations	48,349	48,349	42,833	39,530	38,160
MAE	0.104	0.104	0.103	0.105	0.094
RMSE	0.228	0.228	0.227	0.229	0.217
AIC	20,598	20,508	18,010	16,865	14,320
BIC	20,615	20,552	18,114	16,985	14,457
Log Likelihood	-10,296.956	-10,248.861	-8,992.775	-8,418.485	-7,144.158

Note:

\*p<0.1; \*\*p<0.05; \*\*\*p<0.01<sup>114</sup>

	<i>Confidence in Armed Forces</i>				
	Logit (1)	Logit (2)	Logit (3)	Logit (4)	Logit (5)
<i>Total IE Restrictions</i>	0.001*** (0.0003)	-0.004*** (0.001)	-0.003*** (0.001)	-0.002*** (0.001)	-0.004*** (0.001)
<i>GDPPC(log)</i>		0.084*** (0.016)	0.060*** (0.017)	0.077*** (0.017)	0.025 (0.019)
<i>Polity</i>		0.092*** (0.017)	0.081*** (0.018)	0.078*** (0.019)	0.018 (0.021)
<i>Gender</i>			0.150*** (0.022)	0.144*** (0.022)	0.103*** (0.025)
<i>Younger</i>			-0.065** (0.030)	-0.045 (0.031)	-0.035 (0.034)
<i>Older</i>			0.258*** (0.026)	0.233*** (0.027)	0.240*** (0.029)
<i>Education</i>			0.017 (0.025)	0.017 (0.026)	0.098*** (0.029)
<i>Higher Income</i>			-0.069* (0.035)	-0.068* (0.037)	-0.132*** (0.040)
<i>Lower Income</i>			-0.009 (0.026)	0.004 (0.027)	0.051* (0.030)
<i>Employment</i>			0.189*** (0.029)	0.192*** (0.030)	0.149*** (0.033)
<i>Surveillance</i>				0.139*** (0.023)	0.165*** (0.025)
<i>Trust</i>				0.333*** (0.028)	0.249*** (0.031)
<i>Confidence in Government</i>					1.324*** (0.026)
<i>Willingness to Fight</i>					0.610*** (0.027)
<i>GDPPC(log):Polity</i>		-0.015*** (0.002)	-0.013*** (0.002)	-0.012*** (0.002)	-0.003 (0.002)
Constant	0.710*** (0.026)	0.654*** (0.145)	0.485*** (0.156)	0.112 (0.162)	-0.313* (0.178)
Observations	46,275	46,275	41,344	38,448	35,452
MAE	0.422	0.421	0.414	0.415	0.372
RMSE	0.459	0.459	0.455	0.456	0.431
AIC	56,720	56,578	49,998	46,543	39,237
BIC	56,737	56,621	50,101	46,663	39,373
Log Likelihood	-28,357.776	-28,283.796	-24,986.753	-23,257.716	-19,602.556

Note:

\*p<0.1; \*\*p<0.05; \*\*\*p<0.01<sup>115</sup>

	<i>Respect for Authority</i>				
	Logit (1)	Logit (2)	Logit (3)	Logit (4)	Logit (5)
<i>Total IE Restrictions</i>	0.001*** (0.0004)	-0.005*** (0.001)	-0.005*** (0.001)	-0.005*** (0.001)	-0.005*** (0.001)
<i>GDPPC(log)</i>		-0.019 (0.029)	-0.008 (0.031)	0.034 (0.032)	0.062* (0.033)
<i>Polity</i>		-0.282*** (0.031)	-0.259*** (0.033)	-0.214*** (0.034)	-0.226*** (0.035)
<i>Gender</i>			-0.081** (0.034)	-0.060* (0.036)	-0.045 (0.037)
<i>Younger</i>			0.020 (0.048)	0.002 (0.051)	-0.005 (0.052)
<i>Older</i>			-0.014 (0.040)	0.002 (0.042)	-0.016 (0.043)
<i>Education</i>			-0.151*** (0.039)	-0.170*** (0.041)	-0.162*** (0.042)
<i>Higher Income</i>			0.029 (0.056)	0.036 (0.058)	0.032 (0.060)
<i>Lower Income</i>			0.039 (0.040)	0.057 (0.043)	0.089** (0.044)
<i>Employment</i>			0.008 (0.047)	-0.004 (0.049)	-0.022 (0.050)
<i>Surveillance</i>				-0.048 (0.036)	-0.045 (0.037)
<i>Trust</i>				-0.098** (0.042)	-0.097** (0.043)
<i>Confidence in Government</i>					0.109*** (0.038)
<i>National Pride</i>					0.636*** (0.056)
<i>GDPPC(log):Polity</i>		0.024*** (0.004)	0.022*** (0.004)	0.016*** (0.004)	0.017*** (0.004)
<i>Constant</i>	2.165*** (0.042)	3.175*** (0.259)	3.173*** (0.278)	2.922*** (0.291)	2.088*** (0.305)
Observations	47,076	47,076	41,909	38,858	37,482
MAE	0.170	0.168	0.165	0.161	0.159
RMSE	0.291	0.290	0.287	0.284	0.282
AIC	29,266	28,870	25,420	23,096	22,013
BIC	29,283	28,914	25,524	23,216	22,150
Log Likelihood	-14,630.846	-14,430.215	-12,698.162	-11,534.180	-10,990.506

Note:

\*p<0.1; \*\*p<0.05; \*\*\*p<0.01 116

	<i>National Pride</i>				
	Logit (1)	Logit (2)	Logit (3)	Logit (4)	Logit (5)
<i>Total IE Restrictions</i>	0.004*** (0.0004)	0.002*** (0.001)	0.003*** (0.001)	0.003*** (0.001)	0.001 (0.001)
<i>GDPPC(log)</i>		-0.741*** (0.040)	-0.734*** (0.043)	-0.762*** (0.045)	-0.856*** (0.048)
<i>Polity</i>		-0.370*** (0.042)	-0.314*** (0.045)	-0.345*** (0.048)	-0.482*** (0.051)
<i>Gender</i>			-0.084** (0.035)	-0.075** (0.037)	-0.225*** (0.041)
<i>Younger</i>			0.011 (0.051)	-0.003 (0.053)	0.003 (0.058)
<i>Older</i>			0.068* (0.041)	0.062 (0.042)	0.073 (0.046)
<i>Education</i>			-0.198*** (0.040)	-0.182*** (0.041)	-0.142*** (0.045)
<i>Higher Income</i>			0.256*** (0.067)	0.236*** (0.069)	0.179** (0.073)
<i>Lower Income</i>			-0.403*** (0.039)	-0.404*** (0.041)	-0.397*** (0.045)
<i>Employment</i>			0.199*** (0.049)	0.197*** (0.051)	0.171*** (0.055)
<i>Surveillance</i>				0.012 (0.037)	0.027 (0.041)
<i>Trust</i>				0.037 (0.044)	-0.016 (0.048)
<i>Willingness to Fight</i>					1.083*** (0.041)
<i>Confidence in Government</i>					0.740*** (0.044)
<i>GDPPC(log):Polity</i>		0.045*** (0.005)	0.038*** (0.005)	0.042*** (0.005)	0.058*** (0.006)
Constant	2.033*** (0.042)	8.621*** (0.359)	8.564*** (0.383)	8.776*** (0.409)	8.907*** (0.437)
Observations	47,940	47,940	42,407	39,109	36,022
MAE	0.152	0.151	0.152	0.153	0.140
RMSE	0.276	0.275	0.276	0.277	0.265
AIC	27,428	26,733	23,740	21,962	18,470
BIC	27,445	26,776	23,844	22,082	18,606
Log Likelihood	-13,711.884	-13,361.262	-11,857.825	-10,966.895	-9,218.917

Note:

\*p<0.1; \*\*p<0.05; \*\*\*p<0.01<sup>117</sup>

	<i>Confidence in Government</i>				
	Logit (1)	Logit (2)	Logit (3)	Logit (4)	Logit (5)
<i>Total IE Restrictions</i>	0.008*** (0.0002)	0.001 (0.0005)	0.0004 (0.001)	0.001 (0.001)	0.001 (0.001)
<i>GDPPC(log)</i>		0.170*** (0.014)	0.163*** (0.016)	0.169*** (0.016)	0.195*** (0.016)
<i>Polity</i>		0.137*** (0.016)	0.138*** (0.017)	0.148*** (0.018)	0.154*** (0.018)
<i>Gender</i>			-0.065*** (0.020)	-0.067*** (0.021)	-0.072*** (0.021)
<i>Younger</i>			-0.047* (0.028)	-0.049* (0.029)	-0.044 (0.030)
<i>Older</i>			0.119*** (0.023)	0.097*** (0.024)	0.099*** (0.025)
<i>Education</i>			-0.186*** (0.023)	-0.189*** (0.024)	-0.169*** (0.025)
<i>Higher Income</i>			0.201*** (0.033)	0.187*** (0.034)	0.164*** (0.035)
<i>Lower Income</i>			-0.171*** (0.024)	-0.172*** (0.025)	-0.146*** (0.025)
<i>Employment</i>			0.073*** (0.028)	0.083*** (0.029)	0.079*** (0.030)
<i>Surveillance</i>				0.008 (0.021)	-0.006 (0.022)
<i>Trust</i>				0.413*** (0.025)	0.417*** (0.025)
<i>Respect for Authority</i>					0.103*** (0.038)
<i>National Pride</i>					0.761*** (0.041)
<i>GDPPC(log):Polity</i>		-0.023*** (0.002)	-0.022*** (0.002)	-0.024*** (0.002)	-0.024*** (0.002)
<i>Constant</i>	-0.840*** (0.025)	-1.295*** (0.133)	-1.184*** (0.143)	-1.367*** (0.150)	-2.389*** (0.164)
Observations	47,482	47,482	42,170	39,021	37,482
MAE	0.487	0.483	0.482	0.479	0.474
RMSE	0.494	0.491	0.491	0.489	0.487
AIC	64,600	64,138	56,903	52,435	50,011
BIC	64,617	64,182	57,007	52,555	50,148
Log Likelihood	-32,297.824	-32,063.940	-28,439.697	-26,203.335	-24,989.732

Note:

\* p<0.1; \*\* p<0.05; \*\*\* p<0.01<sup>118</sup>

TASS News Agency Hashtags and English Translations.<sup>119</sup>

Hashtag	English translation	Classification	Replies	Avg Retweet	Avg Likes	Avg Replies	Total Engagement
ВЫБОРЫ2016	Elections 2016 (US)	External 1	577	7.0	4.3	3.3	14.6
ВЭФ	WEF, World Economic Forum	External 2	693	11.6	17.7	7.1	36.4
ОСКАР2016	OSCAR 2016 (Awards)	External 3	68	13.6	14.3	0.9	28.8
ТАСС_В_МИРЕ	TASS Across the World	External 4	383	5.7	9.1	5.6	20.3
БРЮССЕЛЬ	Brussels	External 5	103	13.7	4.2	2.2	20.1
ТАССИТУАЦИЯ_К_ОРОНАВИРУС	TASS Situation Coronavirus (articles indicate reference to Russian situation)	Internal 1	671	3.2	4.0	1.8	9.0
КОДРЕВОЛЮЦИИ	Code Revolution (1917 Russian Revolution)	Internal 2	233	4.9	4.1	1.0	10.0
ПРЕССКОНФЕРЕНЦИЯПУТИНА	Putin conferences and interviews (combination of 3 related hashtags)	Internal 3	779	5.9	3.6	2.1	11.5
РЭН2018	REW 2018 (Russian Energy Week)	Internal 4	101	2.5	3.5	2.2	8.2
ЛАВРОВ	Lavrov (Foreign minister)	Internal 5	63	10.8	5.5	1.4	17.8

TASS Total Engagement t-Test: Two Sample Assuming Unequal Variance, adapted from Twitter<sup>120</sup>

	<i>External</i>	<i>Internal</i>
Mean	24.05899202	11.28733966
Variance	73.22572717	14.60980223
Observations	5	5
Hypothesized Mean Difference	0	
df	6	
t Stat	3.047172072	
P(T<=t) one-tail	0.011296896	
t Critical one-tail	1.943180281	
P(T<=t) two-tail	0.022593791	
t Critical two-tail	2.446911851	

<sup>119</sup>Adapted from ТАСС, “ТАСС (@tass\_agency) Twitter.”

<sup>120</sup> ТАСС.

ABC News Agency Hashtags and Descriptions, adapted from Twitter<sup>121</sup>

Hashtag	Hashtag Description	Classification	Replies	Avg Retweet	Avg Likes	Avg Replies	Total Engagement
ANZACABC	Commemoration of Australian and New Zealand Army Corps WW1 landing at Gallipoli	External 1	10	8.1	2.8	0.4	11.4
MH17	Malaysia Airlines flight MH17 shot down over Ukraine; 298 passengers killed-38 Australian	External 2	10	12.9	0.4	0.7	14.0
ISLAMICSTATE	Islamic State	External 3	4	11.6	0.1	0.6	12.3
GLASGOW2014	2014 Commonwealth Games	External 4	1	2.3	0.8	0.2	3.3
THEWORLDTODAY	ABC news program covering current affairs	External 5	6	2.0	3.0	1.0	6.0
ABCRN	ABC Radio National, national radio programming	Internal 1	47	2.3	1.1	0.4	3.9
AUSPOL	Australian Politics	Internal 2	60	30.6	1.2	0.6	32.4
ABCLIFE	ABC Lifestyle, rebranded in 2020 as ABC Local	Internal 3	40	1.6	3.1	0.5	5.3
AUSVOTES	Australian Votes	Internal 4	11	18.9	0.4	0.4	19.6
QANDA	Q & A TV show often featuring Australian politicians	Internal 5	22	9.5	2.3	0.7	12.5

ABC News t-Test: Two Sample Assuming Unequal Variance.<sup>122</sup>

	External	Internal
Mean	9.398809524	14.72165438
Variance	20.43810232	136.9945525
Observations	5	5
Hypothesized Mean Difference	0	
df	5	
t Stat	-0.948596244	
P(T<=t) one-tail	0.193192876	
t Critical one-tail	2.015048373	
P(T<=t) two-tail	0.386385753	
t Critical two-tail	2.570581836	

<sup>121</sup> Australian Broadcasting Corporation, “ABC News (@abcnews) Twitter.”

<sup>122</sup> Adapted from Australian Broadcasting Corporation.

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