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What did Americans tweet about the TRIPS Waiver?

U.S. Policy Narratives & Global Public Goods

By: Miranda Zhang



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Paper presented to:

Public Policy Studies Preceptor, Bryan Cronan

Faculty Advisor, Professor Jennifer Mosley

Department of Public Policy Studies

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Abstract

The Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) is a multilateral agreement between all the members of the World Trade Organization (WTO) that governs intellectual property (IP) protections. The TRIPS Waiver is a 2020 proposal presented to the WTO by India and South Africa. This was intended to help prevent, contain, and treat COVID-19 by waiving certain IP protections for COVID-19 health technologies, such as vaccines. The WTO members debated the efficacy of this waiver and thus far, the TRIPS Waiver has not passed.

Originally, both the Trump-Pence and Biden-Harris Administrations refused to support the waiver – but four months after the Biden-Harris Administration’s inauguration, they reversed their position on the World Trade Organization’s TRIPS Waiver and issued a statement in support of the proposal. During these four months, the TRIPS Waiver was debated by US experts, advocates, and the general public on Twitter. Using the Narrative Policy Framework to analyze these Twitter narratives, this thesis describes the narrative landscape leading up to the Biden-Harris’s policy decision and draws from existing Narrative Policy Framework literature to articulate expectations for the success of pro-waiver narratives. This paper identifies significant differences between narratives in support of (‘pro-waiver’) and in opposition to (‘anti-waiver’) the TRIPS Waiver: pro-waiver narratives used universalizing language, referencing victims and beneficiaries worldwide rather than in the US, and used egalitarian cultural frames.

These findings illuminate the influence of different narrative elements on domestic policymaking around the global public goods of health. Specifically, this research suggests that emphasizing the all-encompassing scope of a global issue may be an effective narrative strategy for advocates.

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Introduction

Globalization has increased interest in international¹ policy. Some of these policies address ‘global public goods’ (GPGs), which are goods that potentially carry benefits and/or costs for all countries, people, and generations (Kaul and Mendoza 2003). Correspondingly, a ‘global public bads’ are problems that must be addressed through providing GPGs. Both environmental (Grasso 2004; Uitto 2016) and public health (Abdalla et al. 2020; Moon, Røttingen, and Frenk 2017) resources have been conceptualized as GPGs, including COVID-19 vaccines (Meijer, Verschuuren, and Weggen 2021; Boschiero 2021). The frame of COVID-19 vaccines as a GPG has been amplified by UN Secretary-General António Guterres (Secretary-General 2021), who claimed that vaccines should be available and affordable to all. This GPG frame also appears in discourse around the COVID-19 World Trade Organization (WTO) Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) Waiver (e.g., Haugen 2021), since the TRIPS Waiver was intended to increase the accessibility of vaccines worldwide. Indeed, in the same speech wherein Secretary-General Guterres portrayed COVID-19 vaccines as a GPG, Guterres stated his support for the TRIPS Waiver.

The TRIPS Waiver and TRIPS Agreement

TRIPS is a comprehensive multilateral agreement that sets rules around intellectual property (IP), including obligations around the protection of IP (World Trade Organization n.d.). TRIPS was passed by the WTO on January 1, 1995. The TRIPS Waiver was proposed in October

¹ Throughout this thesis, I use “international” to include both the foreign (i.e., primarily affecting beings outside of the specified country) and global (i.e. significantly affecting beings worldwide) levels.

2020 by India and South Africa. This was a proposal to waive the obligations of WTO members to implement or enforce certain provisions of the TRIPS Agreement (hereafter, 'TRIPS').

The TRIPS Waiver specifically sought to waive sections “on copyright (Section 1), industrial designs (Section 4), patents (Section 5) and protection of undisclosed information (Section 7)” (Council for Trade-Related Aspects of Intellectual Property Rights 2021b). The TRIPS Waiver was last updated on May 21, 2021 to reflect new COVID-19 variants, increase specificity around the scope of health technologies and suggest a minimum duration of three years (Council for Trade-Related Aspects of Intellectual Property Rights 2021a).

There is precedent for waiving sections of TRIPS: for example, in 2003, the WTO waived an obligation that prohibited exports of pharmaceutical products made under compulsory licensing (Akhtar and Fergusson 2021). As one of the first and most ambitious agreements on intellectual property rights (IPRs), TRIPS is a pioneering and significant piece of international cooperation around trade (Chaudhary and Chaudhary 2021).

Debate over the TRIPS Waiver

India and South Africa claim that the TRIPS Waiver is for “the prevention, containment, or treatment of COVID-19” (Council for Trade-Related Aspects of Intellectual Property Rights 2020). However, there is debate around the waiver’s efficacy and importance in combatting COVID-19. Debate over the TRIPS Waiver extends beyond government officials and into academia (e.g., scholars), research and advocacy groups (e.g., think tanks, industry lobbyists), and nonprofits (e.g., Doctors without Borders). This controversy is reflected by national stances on the TRIPS waiver, with many developing countries in support and many developed countries in opposition (Kianzad and Wested 2021). Common concerns include inequity, efficacy, and

evidence of need—both actors claim to be concerned with equity and public health but disagree over whether supporting or opposing the TRIPS Waiver would improve the two factors. Actors supporting the TRIPS Waiver cite disparities in vaccine access: for example, in India and South Africa’s proposal, they highlight current disparities in global vaccine access, wherein higher-income countries account for 53% of all purchased doses. Actors opposing the TRIPS Waiver contest that the TRIPS Waiver would improve vaccine access, by claiming that the issue for lower-income countries is manufacturing capacity rather than intellectual property. Other concerns for those in opposition include market freedom and innovation, and legal precedence.

Social Media as a Tool for Change

Parts of the TRIPS Waiver debate occurred on Twitter, allowing even members of the general public to contribute to the discourse. The internet has made information far more accessible, including information about international issues. It has been suggested that online media has increased awareness of climate change (Mavrodieva et al. 2019) and foreign humanitarian crises (Shearing 2013). This has led to advocacy not only for general issues such as climate change (Barrios-O’Neill 2021; Kirilenko and Stepchenkova 2014), but also for specific cases such as the Global Frackdown (Hopke 2015) and the Arab Spring, which has controversially been termed ‘The Twitter Revolution’ (Robert J. Pekkanen, Steven Rathgeb Smith, and Yutaka Tsujinaka 2014).

Social media platforms such as Facebook or Twitter provide novel opportunities for individuals and groups to influence policy through the construction and spreading of narratives that can become highly visible (or even ‘go viral’). This is particularly the case in the United States, where official Twitter accounts have been created for political representatives ranging from members of Congress (Golbeck, Grimes, and Rogers 2010; Russell 2021) to departments within

the Executive Branch (Mergel 2013). There is a growing body of work on the use of Twitter by advocacy groups and nonprofits to engage with the public and influence policy (e.g., Auger 2013; Mazid 2020; Seelig et al. 2019; Lovejoy and Saxton 2012; McNutt and Boland 1999). The combination of globalization and online communication has vastly increased the opportunities for domestic actors to learn and communicate about foreign or global issues, potentially influencing the corresponding policymaking process.

The potential for US Twitter actors to influence policymaking around global problems has primarily been discussed in the context of domestic environmental policy, such as nuclear energy (Gupta, Ripberger, and Wehde 2018) or the Keystone XL Pipeline (Hodges and Stocking 2016). Additionally, some research has been done on the relationship between Twitter and international policy (Kim and Cooke 2018; Collins, DeWitt, and LeFebvre 2019). However, not as much research has been conducted on the relationship between Twitter narratives and the domestic *policymaking process* for international policy. There exists literature on the impact of narratives on international policy, ranging from environmental initiatives (Noort and Colley 2021) to nuclear war (Hubbard 1998), but not specifically on Twitter or global health.

The TRIPS Waiver as a Policymaking Case

Considering the similarities between the global public bads of climate change and COVID-19 (Fuentes et al. 2020; Manzanedo and Manning 2020; Ruiu, Ragnedda, and Ruiu 2020) and the rise in Twitter usage due to COVID-19, studying a case of COVID-19 policy may help illuminate the relationship between Twitter narratives and the US policymaking process around global problems. One such case is the TRIPS Waiver. The TRIPS Waiver is a useful case for three reasons. Firstly, it concerns global public good provision, which has been little studied in relation to Twitter narratives. Furthering our understanding of how Twitter and global public good

provision interact, both of which are increasingly significant arenas of international policy discourse and decision making, may help orient future efforts surrounding global public good provision or international governance more broadly. Secondly, there was expert debate around whether the Biden-Harris Administration should sign onto the waiver, potentially increasing ambiguity for policymakers and creating a 'window of opportunity' for advocates to affect the policymaking process (Cairney and Kwiatkowski 2017). Finally, on May 5th, 2021, the Biden-Harris Administration reversed its original stance and decided to sign onto the waiver, indicating that the narratives of pro-waiver advocates may have successfully influenced the policymaking process.

Since passing the TRIPS Waiver would require agreement from all members of the WTO, this policy debate may help illuminate policymaking dynamics around international cooperation. Examining the TRIPS Waiver specifically, which pertains to the global public goods of public health and COVID-19 vaccines, might improve our understanding of policymaking for global public good provision. One such example is the policy decision made by the Biden-Harris Administration's on May 5th, 2021, to support the TRIPS Waiver. By studying their decision as a case of policymaking for public good provision, this paper aims to describe the factors that may have affected the Biden-Harris Administration's decision on the TRIPS Waiver to better understand what factors contribute to the policymaking process.

Research Questions

Given the potential for Twitter to influence policymaking, the rise in Twitter usage during COVID-19, and the Biden-Harris's decision to break from status quo and sign onto the waiver, this research investigates two questions:

1. What narratives did US Twitter accounts construct around the impact of the TRIPS Waiver on the provision of the COVID-19 vaccine as a global public good?
2. Given the Executive Branch's decision to support the TRIPS Waiver, what might have allowed pro-waiver narratives to succeed?
 - a. Here, success is defined as the policy outcome aligning with a group's stance. Thus, pro-waiver narratives succeeded because the Biden-Harris Administration agreed to support the waiver.

Answering the first question will increase understanding of how constituents of the US government (attempt to) advocate for non-constituents, i.e., non-citizens. Answering the second question will help illuminate how Twitter narratives can affect the provision of global public goods and the potential policy impacts of Twitter for U.S. (domestic) policymaking on global problems. Combined, answering these two questions will contribute to our understanding of the broader question, "In cases of U.S. policymaking for the provision of global public goods, what narratives are constructed?" By examining narratives surrounding the TRIPS Waiver decision from the Biden-Harris Administration, this paper aims to investigate how narratives drive domestic policymaking for global public goods.

Literature Review

Context: Global Governance and Global Public Goods

Global governance could help address global problems such as climate change (Saran 2009) and public health (Gostin, Moon, and Meier 2020), and is a topic of increasing concern following heterogenous policy responses to the COVID-19 pandemic (Levy 2020). One approach to global governance involves providing global public goods (GPGs). As conceived of by Inge Kaul in 1999, GPGs are nonrivalrous and nonexcludable goods that benefit more than one group of countries and extend to multiple (ideally all) populations and generations (Kaul, Grunberg, and Stern 1999). GPGs include climate change mitigation (Grasso 2004), public health security (Chen, Evans, and Cash 1999), and distributive justice (Kapstein 1999). Like with global governance, interest in GPGs has risen due to the COVID-19 pandemic (Kopiński and Wróblewski 2021). Extending the conceptualization of public health security as a GPG, COVID-19 vaccines have been framed as a global public good by experts (Boschiero 2021; Yonette Felicity Thomas et al. 2020) and the United Nations' Secretary-General (Secretary-General 2021). This conceptualization has been criticized both for lacking concern for equity (Saksena 2021) and for failing to have the nonrivalrous and nonexcludable features of a GPG (Govind Persad 2021). Harkening back to the conceptualization of distributive justice as a GPG, it may make more sense to conceptualize equitable COVID-19 vaccine distribution – rather than COVID-19 vaccines per se, which do not seem nonrival and nonexcludable – as a GPG. Alternatively, the World Health Assembly's resolution on COVID-19 suggests that COVID-19 immunization is per se a GPG: Point 6 “recognizes the role of extensive immunization against COVID-19 as a global public good for health” (The Seventy-third World Health Assembly 2020). Regardless, COVID-19

vaccines contribute to the broader GPG of public health security and so is linked to GPG provision.

According to Bodansky (2012), there are a multitude of potential causes for the underprovision of a GPG. Since GPGs often relate to global problems that require collective effort to address, the provision of these 'aggregate-effort' GPGs can face collective action problems (Bodansky 2012). Climate change mitigation exemplifies an aggregate-effort GPG: although mitigating climate change is a net benefit for the world, the relevant actions (e.g., reducing carbon emissions) may not necessarily be a net benefit for each individual state. Thus, states are incentivized to provide GPGs only if other states also provide them, and to otherwise free ride (Harris 2007). Not every GPG is an aggregate-effort problem: Instead, the underprovision of a GPG may depend on the 'weakest link.' For example, the eradication of malaria depends on every state domestically eradicating malaria – if even one state fails to do so, then the GPG will not be provided. More broadly, there can be disagreement over whether a GPG really is a global good, and whether the provision of a GPG would be preferred to the provision of other private and public goods. It may be possible to resolve such disputes through a strong global governance system, such as an international body that has the authority to determine what counts as a GPG, how each state should contribute, and hold states accountable. However, there is currently no such institution – hence the underprovision of GPGs such as climate change mitigation or COVID-19 immunization. For now, the decision to provide a GPG hinges upon individual states voluntarily contributing to its provision. Thus, understanding the (under)provision of GPGs requires a state-level understanding of the policymaking process (hereafter, 'policymaking') related to GPG provision (Kaul et al. 2003, 26-27).

Theory: Narrative Influence on Policy

One approach to understanding domestic policymaking is narrative analysis. The idea that narratives can affect policymaking rests on the concept of human beings as storytellers (*homo narrans*): Fisher (1987) suggests that human decision making is justified by ‘good reasons’ expressed by narratives. Thus, *homo narrans* posits that narrative is central to understanding all human behavior and decision making. Resting on this assumption, the ‘narrative turn’ of the 20th century saw an increase in social scientists’ use of narrative analysis to study politics and policy’ (Czarniawska 2010). Policy scholars in particular incorporated narrative analysis to help account for the significance of values, communication, and argumentation in policymaking (Fischer 2003). Narrative policy analysis was, however, often not empirical or falsifiable until the creation of the Narrative Policy Framework (NPF) (M. D. Jones and McBeth 2010).

The NPF is a theory of the policymaking process that recognizes and investigates the influence of narrative in policymaking (Shanahan et al. 2017). It provides a scientific framework for narrative analysis by defining the *form* and *content* of policy narratives, enabling scholars to operationalize, compare, and test the impact of narrative elements. In doing so, the NPF makes five core assumptions: social construction, bounded relativity, generalizable structural elements, three interacting levels of analysis (micro, meso, and macro), and the *homo narrans* model of the individual (Shanahan, Jones, and McBeth 2018). NPF defines the *form* of policy narratives as made up of four key elements—the setting, characters, plot, and moral. However, a policy narrative need not include all four elements. Typically, NPF scholars have defined policy narratives as featuring at least one character and public policy referent (i.e., a reference to the relevant policy). Referents include policy proposals, policy-related behavior and potential consequences (Shanahan, Jones, and McBeth 2018). The *content* of policy narratives varies depending upon

policy debate and context. This poses a problem for extrapolating findings from one debate's policy narratives to a different debate, known as the problem of narrative relativity. While acknowledging narrative relativity, the NPF provides a way of inferring generalizable findings from unique policy debates.

Resting upon its second assumption of bounded relativity, the NPF theorizes that variation between policy debates is bounded by predictable strategies and belief systems. Belief systems are sets of values or beliefs that orient individuals, groups, and societies (Shanahan et al. 2013). When grounded in a larger theoretical framework such as Cultural Theory (CT) (Thompson, Ellis, and Wildavsky 1990), the NPF assumes that these belief systems, and people's orientations towards them, transcend specific contexts and are relatively stable. For example, Ney (2014) uses the NPF to analyze meso-level policy narratives through the lens of CT's macro-level cultural frames. Identifying common beliefs can enable the analysis of one unique narrative to generalize across other narratives with the same belief systems. Drawing upon CT to interpret domestic policy debate on a global issue (such as the U.S. TRIPS Waiver case) may be especially interesting, as it provides an opportunity to explore the influence of narratives on a global issue without the same level of cultural relativity that arises in cross-country comparisons and debates.

Narrative strategies refer to specific ways of manipulating narrative elements to influence the policy process (Shanahan, Jones, and McBeth 2018). Following the identification of narrative strategies, the NPF posits hypotheses about the use and effect of these strategies. These hypotheses are divided according to the level of analysis (micro, meso, and macro), although hypotheses have yet to be articulated for macro-level narratives (Shanahan et al. 2017). For example, meso hypotheses 1 and 2 refer to narrative strategies intended to affect the scope of conflict. McBeth et al. (2007) was inspired by Schattschneider (1960) to hypothesize that actors

who perceive themselves as losing will use narratives to try to widen the scope of the conflict (issue expansion) whereas actors who perceive themselves as winning will try to restrict the scope of the conflict (issue containment). Issue expansion occurs through suggesting that *more* people will be *harmed* by a policy or problem (diffusing costs) and *fewer* people will benefit (concentrating benefits). Conversely, issue containment occurs through suggesting that *more* people will *benefit* (diffusing benefits) and *fewer* people will be *harmed* (concentrating costs). Issue expansion and issue containment have been studied by multiple NPF scholars (Gupta, Ripberger, and Collins 2014; McBeth et al. 2007; 2012; D. A. Crow and Lawlor 2016). This is particularly relevant for domestic policymaking on global issues, such as the TRIPS Waiver, because global issues are more expansive than the average issue faced by a domestic policymaker. Thus, stakeholders in global issues may be more likely to use narrative strategies that affect the scope of conflict.

It is not necessary, however, to test hypotheses when conducting NPF studies. Qualitative NPF studies such as Ney (2014) and O'Bryan, Dunlop, and Radaelli (2014) have articulated expectations or theoretical propositions, rather than statistically testing hypotheses. By operationalizing and analyzing common ways in which actors arrange narrative elements, NPF scholars can contribute to our understanding of the effects of specific strategies. Overall, by focusing on policy narrative strategies and beliefs, NPF scholars can compare the content of unique debates (Shanahan, Jones, and McBeth 2018).

The NPF has been used to study policy narratives of global problems before: climate change is a popular topic for NPF scholars, with studies spanning all three levels of analysis (M. D. Jones 2014a; D. Crow and Jones 2018; M. D. Jones 2014b; Gupta, Ripberger, and Collins 2014; Gottlieb, Oehninger, and Arnold 2018; H. Han and Ahn 2020; Peterson 2021). NPF scholars are also increasingly analyzing COVID-19 policy narratives, with the first few studies focusing on

government response (Mintrom and O'Connor 2020; Apriliyanti, Utomo, and Purwanto 2021; Mintrom et al. 2021; Nugroho and Azmi 2021). However, all these studies focus on domestic policies rather than international approaches such as vaccine diplomacy.

Curiously, the structure of policy narratives within the NPF resemble strategic narratives as described by Roselle, Miskimmon, and O'Loughlin (2014) which consist of the setting, actors, action, and resolution. Within international relations, strategic narratives reinterpret Nye (2004)'s concept of 'soft power' as depending on state narratives and the relationships between contesting narratives. The similarity between the structure of policy narratives and strategic narratives suggests that it might be possible to extend the NPF's methodology to the realm of international narrative. For example, the narrative strategy of issue expansion could manifest as *widening* the circle of harm beyond national borders (e.g., global disparities in vaccine access) whereas issue containment could appear as *widening* the circle of people who will benefit from the status quo (e.g., not signing the TRIPS waiver). Altogether, though the NPF has yet to be used to study domestic policymaking for global policy, it seems plausible that narrative structure and content is sufficiently generalizable to international and global levels. If so, then this paper provided a first foray into using the NPF to study domestic narratives of global problems, potentially suggesting its utility for studying international narratives (i.e., strategic narratives) as well.

Within international relations, scholars have used narrative analysis to study ontological security (i.e. the continuity of a state's self-narrative) and help explain changes in foreign policy (Subotić 2016). The desire to preserve ontological security can constrain policy options, as some decisions may threaten a state's established identity, although a state can construct narratives to shift their identity towards a preferred policy. For example, India's shift towards a more US-friendly identity (Selden and Strome 2017). This resembles Fisher's claim that decisions require

'good reasons' and a coherent narrative logic. Narratives also affect physical security: not only can ontological security affect physical security and vice versa (Mitzen and Larson 2017), but also, under the *homo narrans* model, claims about physical security—as with all claims—are communicated through narratives. The rise of globalization has added layers of narrative, with 'transnationalism' and 'globalization' per se being narratives that shape foreign policymaking (Devereaux and Griffin 2013). Together, this suggests that policy narratives may be especially rich and complex at a global level.

Global policy narrative analysis often concerns international cooperation and global governance (Ney 2012; Ingram 2005; Fiske 2021; Pécoud 2021). Existing research on the relationship between narrative and GPGs center around the concept itself: its usage in aid policy narratives (Davies 2017), or in contrast to alternatives such as the 'commons' (Boonen Christiaan et al. 2019) and 'human rights' (Walker 2016). J. Han and Casas i Klett (2018) considers the Belt and Road Initiative as a new narrative for China and its potential impact on the GPG of increased trade, but it does not analyze specific narratives nor policy decisions. There are also studies on the narratives of GPGs that do not use the concept of GPGs, such as climate change mitigation (e.g. Jones and Peterson 2018; Sanford et al. 2014; Jerneck 2014; Veland et al. 2018; Neimanis and Walker 2014; Meyer et al. 2020). However, without tying issue-specific narrative analyses to the broader issue of GPG provision, it is unclear what narrative strategies may affect the general provision of GPGs. For example, one NPF study on global climate mobilization found that justice was the predominant frame used by youth activists. Since the authors did not compare this justice-oriented narrative to an alternative narrative, it is unclear whether the activists' narrative was more effective at encouraging climate change mitigation than other narratives. While the author draws a link between policymakers meeting activist Greta Thunberg and subsequent

policy changes, the lack of case-specific analysis leaves little room for understanding the impact of specific narratives on GPG provision.

Despite the dearth of research into the efficacy of different narratives at affecting policymaking around GPG provision, existing literature suggests potential routes for exploration.

1. The similarity between the operationalization of narratives within the theories of the NPF and strategic narratives suggests that strategies around the scope of conflict may be particularly relevant in cases of GPG provision.
2. The concept of a state-narrative may suggest that narratives targeting the entity of a state or country may be more relevant in cases of GPG provision.
3. The frame of justice may be relevant for the TRIPS Waiver case (which concerns the GPGs of public health and COVID-19 vaccines) since it has already been used in the context of the GPG of climate. To investigate the efficacy of different narratives, this paper compared the frame of justice to alternative frames.

Based upon the context of the TRIPS Waiver as a case of domestic policymaking for a global issue, literature on policy narrative form and strategies around the scope of conflict, and literature on international relations, this research had the following expectations:

Expectation 1: Pro-waiver narratives (which ended up succeeding), will more often reference individuals, rather than entities, as heroes than anti-waiver narratives.

Expectation 2: Pro-waiver narratives will more often reference America or Americans as beneficiaries or victims than anti-waiver narratives.

*Expectation 3: More pro-waiver narratives will reference **both** Americans and non-Americans (as beneficiaries or victims) than anti-waiver narratives.*

Expectation 4: To contain the scope of conflict, anti-waiver narratives (which represent the 'winning' status quo) will, compared to pro-waiver narratives, more often a) reference benefits of the status quo (not supporting the waiver) and b) stress the diffusion of benefits and the concentration of costs.

Expectation 5: To expand the scope of conflict, pro-waiver narratives (which represent the 'losing' side seeking change) will, compared to anti-waiver narratives, more often a) reference costs of the status quo and b) stress the diffusion of costs and the concentration of benefits.

Prior Research: Twitter as a Platform for Policy Narratives about GPGs

Social media usage in the US increased between 2018 and 2020, with Twitter experiencing the largest growth (Activate Consulting 2021). In the wake of COVID-19, Twitter is increasingly being used to disseminate medical (mis)information, including by health organizations (Wong et al. 2021) and policymakers (Wang, Croucher, and Pearson 2021). This suggests that Twitter may have been influential in COVID-19 policymaking, in part because it was one of the few spaces left for public communication during the height of COVID-19. Indeed, debate on the TRIPS waiver has appeared on mediums as diverse as newspapers (Prabhala, Jayadev, and Baker 2020), academic journals (Mercurio 2021b), and social media (Gonsalves 2021). The TRIPS waiver has been linked to online campaigns around vaccine equity, such as the #PeoplesVaccine (Peoples Vaccine n.d.), #Vaccines4All (CONCORD n.d.), and #FreetheVaccine (People's Vaccine Alliance n.d.).

In general, the internet has made information far more accessible, including information about international issues. It has been suggested that online media has increased awareness of climate change (Mavrodieva et al. 2019) and foreign humanitarian crises (Shearing 2013).

Additionally, social media platforms such as Facebook or Twitter provide novel opportunities for individuals and groups to influence policy through the construction and spreading of narratives that can become highly visible or even 'go viral'. This is particularly the case in the United States, wherein official Twitter accounts have been created for political representatives ranging from congressmembers (Golbeck, Grimes, and Rogers 2010) to senators (Russell 2021) to departments within the Executive Branch (Mergel 2013), creating direct paths for a Twitter narrative to reach a US policymaker. There is a growing body of work on the use of Twitter by advocacy groups and nonprofits to engage with the public and influence policy (e.g., Auger 2013; Mazid 2020; Seelig et al. 2019; Lovejoy and Saxton 2012; Mcnutt and Boland 1999). This includes advocacy on global problems, not only for general issues such as climate change (Barrios-O'Neill 2021; Kirilenko and Stepchenkova 2014) but also for specific events such as the Global Frackdown (Hopke 2015), Occupy Wall Street (Hammond 2019), or the Arab Spring, which has controversially been termed 'The Twitter Revolution' (Robert J. Pekkanen, Steven Rathgeb Smith, and Yutaka Tsujinaka 2014). Thus, there is a robust body of work showing that Twitter is used as a forum for influencing policymaking around global problems and GPG provision.

Multiple NPF studies have identified and analyzed policy narratives within tweets, suggesting that the influence of Twitter narratives on the policymaking process can be empirically studied. The first NPF study to look at tweets, Merry (2016), found that US gun policy organizations not only construct policy narratives using tweets, but also used social media for narrative construction more often than other purposes such as requesting action or donations. Another study examined tweets on US nuclear energy policy, which relates to the GPG of climate change mitigation, and found that over half of their sampled tweets contained sufficient narrativity to meet the NPF's definition of a policy narrative. (Gupta, Ripberger, and Wehde 2018)

More recently, two studies have analyzed Twitter narratives on the same two areas of gun policy and climate policy: Lin and Chung (2020) and Boscarino (2020) respectively. Altogether, these four NPF studies suggest that Twitter is a viable forum for finding and analyzing policy narratives.

The combination of globalization and online communication has vastly increased the opportunities for domestic actors to learn and communicate about foreign or global issues, potentially influencing the corresponding policymaking process. The potential for US Twitter actors to influence policymaking around global problems has primarily been discussed in the context of domestic environmental policy, such as nuclear energy (Gupta, Ripberger, and Wehde 2018) or the Keystone XL Pipeline (Hodges and Stocking 2016). Some research has been done on the relationship between Twitter and international policy, such as the impact of the Trump Administration's withdrawal from the Paris Agreement on Twitter discourse (Kim and Cooke 2018) and the use of Twitter for foreign diplomacy (Collins, DeWitt, and LeFebvre 2019). However, there is little on the impact of Twitter narratives on the domestic *policymaking process* for international policy. There exists literature on the impact of narratives on domestic policymaking for international policy, ranging from environmental initiatives (Noort and Colley 2021) to nuclear war (Hubbard 1998), but not specifically on Twitter or global health.

Furthermore, while there has been explosive interest in Twitter communication during COVID-19, research has thus far centered around COVID-19 misinformation rather than communication about COVID-19 policymaking (Kouzy et al. 2020; Shahi, Dirkson, and Majchrzak 2021; Yang, Torres-Lugo, and Menczer 2020; Loomba et al. 2021). Thus, this paper aimed to contribute to a gap in the existing literature around COVID-19 Twitter usage: rather than investigating the impact of Twitter narratives on the general public's behavior, this paper

investigated the impact of Twitter narratives on *policymakers'* behavior. Specifically, this research examined the impact of Twitter on US policymaking for GPG provision. Existing literature on Twitter's impact on GPG provision focuses on climate change. Therefore, this research also contributed to literature gaps regarding the provision of public health security as a GPG.

Context: Themes within Existing GPG Discourse

Several themes are both prominent in the TRIPS waiver debate and also broadly relevant to GPG provision: private vs public provision, competition, cooperation, nationalism, apartheid, equity, and justice.

A key debate for GPG provision revolves around private versus public provision. As Kaul (2005) explains, GPGs can be provided both privately and publicly. For example, vaccines are private goods that contribute to the GPG of public health security, but the state must ensure the adequate provision of public health security and the public consumption of health services. This raises the question of whether GPGs may be better provided publicly or privately. Seo (2016), for instance, examines this question in the context of climate change and suggests that the most feasible means for providing the GPG of climate change mitigation may stem from private-public partnerships. The question of public versus private provision also manifests in the TRIPS debate. Scholars opposed to the TRIPS waiver have argued that the waiver would interfere with private-sector incentives to provide COVID-19 vaccines and stymie innovation (Mercurio 2021b; 2021a; Mešević 2021), while proponents of the waiver have suggested that the current intellectual property regime and free market is ill-suited to provide the GPG of COVID-19 vaccines and exacerbates inequality (Legge and Kim 2021; Sekalala et al. 2021; Sariola 2021). This same dynamic arises among advocacy organizations such as Public Citizen (Public Citizen 2021) and the

Biotechnology Innovation Organization (BIO) (Dr. Michelle McMurry 2021), which respectively advocate for and against the waiver.

Relatedly, there is debate around whether competition (which typically suggests private provision) or cooperation (which typically suggests public provision) would best secure public health security. Ney (2012) describes two meta-narratives about the global health crisis that represent each side: the Choice narrative, which trusts in markets and competition, and the Rights narrative, which trusts in social norms and the “inherent good of people” (Ney 2012, 287). Proponents of the Choice narrative encourage increased privatization and competition to improve health care provision, whereas proponents of the Rights narrative view global institutions such as the WHO as necessary to coordinate international cooperation and instate global health equity (Ney 2012, 265-267).

The theme of cooperation also intersects with themes of nationalism, apartheid, equity, and justice. On May 17, 2021, WHO Director-General Tedros Adhanom Ghebreyesus called the inequitable state of COVID-19 vaccine distribution a ‘vaccine apartheid’ (Reuters 2021). This call has been taken up by supporters of the TRIPS waiver, such as President Cyril Rampahosa of South Africa (Sarkar 2021) and Public Citizen (Zain Rizvi and Peter Maybarduk 2020). Similarly, scholars have called COVID-19 vaccine inequity an example of ‘vaccine nationalism’ (Zhou 2021; Rimmer 2021) or, more implicitly, of overemphasis on “national boundaries and narrow interests” (Figueroa et al. 2021, 2). Resolving the inequitable provision of COVID-19 vaccines, then, requires solidarity and cooperation—to which the TRIPS waiver can contribute, if not singlehandedly provide (Obinna 2021; Gonsalves and Yamey 2021; Figueroa et al. 2021; Yonette Felicity Thomas et al. 2020). Thus, the TRIPS waiver represents a step towards global justice. Interestingly, the themes of apartheid and justice are common frames in climate change narratives

as well. On June 25, 2019, UN Special Rapporteur Philip Alston labeled the climate change crisis as potentially causing 'climate apartheid' (2019). There is also some literature on the role of justice within climate narratives, and much more the area of climate justice per se (Gaard 2014; Dugard, St. Clair, and Gloppen 2013; Stapleton 2019; Yevheniya Tykhomyrova 2020). This suggests that equity may be a common concern for GPG provision, which is not surprising given that distributive justice and equity have been theorized to be GPGs (Kapstein 1999; Rao 1999).

All these themes may be understood through Cultural Theory (CT), which suggests that this study can use CT to ground the analysis and improve the generalizability of this study's findings. According to CT, sociality can be mapped along two dimensions: 'grid' and 'group'. The vertical 'grid' axis corresponds to the extent to which an individual is constrained by rules and role differentiation, while the horizontal 'group' axis corresponds to the strength of group ties (Mamadouh 1999). These dimensions give rise to four cultural frames: fatalist (high grid-low group), hierarchist (high grid-high group), individualist (low grid-low group), and egalitarian (high grid-high group) (Thompson, Ellis, and Wildavsky 1990). Fatalists withdraw from policy discussion and so are not relevant to policy narrative analysis (G. David Garson 2017). Hierarchs prefer top-down government control and seek stability; individualists prefer laissez-faire government and believe in the power of the market; egalitarians prefer cooperation and aim for an equal society (Katherine A. Daniell 2014).

The debates over private and public, competition and cooperation, and equity align with the individualist and egalitarian frames. For example, pro-waiver narratives often draw upon egalitarian beliefs: Malkin and Wildavsky (1991) suggest that egalitarians are more likely to support the idea of public goods while Daniell (2014) notes that egalitarians apply ethical arguments, which relate to the themes of justice and morality. Villains of the egalitarian frame

are profit-driven companies (e.g., 'Big Pharma), governments that enable profit-seeking behavior, and groups supporting the status quo. Anti-waiver narratives, on the other hand, commonly reference markets and innovation, which thematically align with the individualist frame. Villains include threats to intellectual property, innovation, or market freedom.

Furthermore, debates around the efficacy of the TRIPS Waiver, the need for evidence, and the intellectual property regime relate to the hierarchical frame which seeks authority, expertise, and top-down solutions. Hierarchs support increased government intervention and expert-driven solutions. They value tradition and believe that solutions can be found within, or with modifications to, existing laws and norms. Thus, hierarchical narratives are likely to oppose the TRIPS Waiver as it represents a departure from regulatory norms – although some hierarchical narratives may argue that the TRIPS Waiver is simply utilizing or improving existing laws.

Existing literature suggests the viability of combining the NPF with CT to study global and health policy narratives. CT has not only been shown to correlate well with core beliefs on international disposition – such as attitudes towards cooperation (Ripberger et al. 2014) – and align with the four ultimate values within the international political economy (Verweij 1995), but has also been applied to international environmental treaties (Rayner 1991), national cultures (Katherine A. Daniell 2014), and individual attitudes to public health (Song 2014; Kahan et al. 2010). Yet, there is no literature evaluating the efficacy of these cultural frames for increasing GPG provision, whether for COVID-19 or in general. Studying US policy narratives around the TRIPS waiver will lead to a better understanding of the usage and impact of these themes and cultural beliefs on policymaking for GPG provision. Furthermore, by drawing from existing literature on state-narratives and identity, this study aimed to explore whether authors using a cultural frame to discuss global problems are more likely to target a state's identity – contrary to the typical

expectation that targeting an individual hero may be more effective. Based on the existing literature on NPF, CT, and international relations, this study followed these expectations:

Expectation 6: Pro-waiver narratives will, more often than not, use an egalitarian cultural frame.

Expectation 7: Narratives using a cultural frame will more often reference the entity of America than an individual.

In total, this research tested seven expectations:

Expectation 1: Pro-waiver narratives (which ended up succeeding), will more often reference individuals, rather than entities, as heroes than anti-waiver narratives.

Expectation 2: Pro-waiver narratives will more often reference America or Americans as beneficiaries or victims than anti-waiver narratives.

*Expectation 3: More pro-waiver narratives will reference **both** Americans and non-Americans (as beneficiaries or victims) than anti-waiver narratives.*

Expectation 4: To contain the scope of conflict, anti-waiver narratives (which represent the 'winning' status quo) will, compared to pro-waiver narratives, more often a) reference benefits of the status quo (not supporting the waiver) and b) stress the diffusion of benefits and the concentration of costs.

Expectation 5: To expand the scope of conflict, pro-waiver narratives (which represent the 'losing' side seeking change) will, compared to anti-waiver narratives, more often a) reference costs of the status quo and b) stress the diffusion of costs and the concentration of benefits.

Expectation 6: Pro-waiver narratives will, more often than not, use an egalitarian cultural frame.

Expectation 7: Narratives using a cultural frame will more often reference the entity of America than an individual.

For this study, *pro-waiver* narratives are defined as policy narratives that posit signing onto the TRIPS waiver as the policy solution, or ‘moral’ of the story. Conversely, *anti-waiver* narratives are defined as policy narratives that posit **not** signing onto the TRIPS waiver as the moral (e.g., by requesting a hero oppose the TRIPS waiver). These are conservative definitions that ensure the policy stance is explicit within the tweet, even excluding policy narratives that do not make a call for action but suggest supporting/opposing the TRIPS waiver may have positive/negative consequences. Thus, these policy narratives should represent the most unambiguous narratives from either side. Furthermore, since signing onto the TRIPS waiver was not the status quo prior to the Biden-Harris Administration’s decision on May 5th, pro-waiver actors started ‘on the losing side’ whereas anti-waiver actors started ‘on the winning side,’ as the status quo was their desired state. Pro-waiver narratives did, however, end up succeeding: as such, this study follows the narrative journey that led pro-waiver actors to success.

Data & Methods

Increasingly, social scientists are using narrative analysis to study public policy (Czarniawska 2010). Given the robust body of work on the relationship between foreign policy and state ‘identity,’ which may be transmitted through discourse and narratives (e.g., Wæver 2001; Subotić 2016), it seems plausible that policy narratives – and corresponding analysis – may be even richer at an international level. This paper used the Narrative Policy Framework (NPF), which identifies key elements of policy narratives to empirically study the presence and impact of narratives in the policymaking process (M. D. Jones and McBeth 2010). The NPF has been used to study policy narratives in social media, including Twitter (Merry 2016). This paper examined the content of tweets published by US Twitter accounts on the TRIPS waiver using the NPF. Thus, this research will also contribute to our understanding of the utility of the NPF for studying policies around GPG provision.

The study analyzed Twitter narratives of the TRIPS waiver from all US actors by searching for relevant tweets from all US Twitter accounts. To investigate the influence of these tweets specifically on the Biden-Harris Administration’s decision to support the TRIPS waiver, this paper only used tweets posted between January 20, 2021 and May 5, 2021. January 20 was the date of President Biden’s inauguration and May 5th was the date that United States Trade Representative Katherine Tai announced the Biden-Harris Administration’s support for the TRIPS waiver (Office of the United States Trade Representative 2021).

To collect all relevant tweets, this study used the social media scraper `snsrape`² and Python. Scrapers avoid limitations of Twitter’s standard API, such as being restricted to tweets

² <https://github.com/JustAnotherArchivist/snsrape>

within the past week (Dongo et al. 2020), without the need to purchase access to less restrictive Twitter APIs. Snscape can automate the data collection from a Twitter ‘advanced search,’ returning all tweets—including retweets—that match the search criteria. Twitter’s advanced search includes the ability to filter for tweets made near a specified location, which is notable because this research focused on tweets from US-based actors (defined as actors who reside in the US). Twitter collects two types of geographical metadata, the location of the tweet and of the account (Twitter, Inc. n.d.), creating two possible approaches for estimating the location of a Twitter user.

Twitter’s advanced search can only filter for the location of a tweet, limiting its utility for this research. Firstly, the specificity of Twitter’s geo-tagging makes it relatively harder to search for *all* tweets made in the United States, compared to all tweets made in a specific city. Secondly, using a tweet’s geotag can be misleading because a user does not have to live in the United States to post a tweet in the United States (Zohar 2021). An alternative is filtering by Twitter account location. However, snscape cannot automatically filter tweets based on the user’s location, so filtering by the account’s location must be done manually.

Both methods were tested: filtering by tweet location produced too small of a dataset (88 tweets), whereas filtering by user location produced thousands of tweets. Thus, this paper used user location to identify tweets from US actors. Without the need for a location tag within the search query, this study simply used snscape to search for all tweets that referenced COVID-19 *and* the TRIPS waiver (i.e., included “COVID-19,” “COVID,” “#COVID19,” or “vaccine” *and* “waiver,” “waive,” “TRIPS,” “#TRIPSWaiver” “#TRIPS,” “WTO,” “intellectual property,” “IP,” “#VaccineApartheid,” “#VaccineNationalism,” “#TripsWaiverNow,” or “#PeoplesVaccine”). This resulted in an initial dataset of 14,996 tweets.

To narrow the dataset only to US actors, Excel was used to manually filter for tweets made by users whose account locations indicated that they were in the United States. This included unambiguous locations in the US (e.g., “New York City, USA”) as well as ambiguous locations that suggested US residency (e.g., “#DemocratsAreDestroyingAmerica). For convenience, this study filtered based on account location without considering the profile description. It seemed less presumptive to infer a user’s location from their inputted location than from potentially relevant descriptors in their description, such as a US flag or a hashtag of a US political party (e.g., “#Democrat”). The only exception was when an account’s location was ambiguous. In those cases, the user description and tweets were examined to infer the actor’s location. For example, one user put “#VaccineEquity HQ” as their location, which seemed highly relevant although the account location did not suggest that the user was based in the US. However, their profile description mentioned an affiliation with a US organization, so this actor remained in the dataset. After location filtering, this study’s dataset consisted of 3,153 tweets.

Per standard NPF studies, this study’s research method was content analysis, with a focus on the presence or absence of narrative components as summarized in Table 1. To identify narrative components, this study used an adaptation of the NPF’s generic meso-level codebook (Shanahan, Jones, and McBeth 2018), which defines narrative elements of interest and outlines the coding process for the presence of a component. To adapt the codebook to this paper’s specific research context, several elements were excluded, such as ‘plot,’ and added, such as ‘beneficiary,’ which has previously been used to enhance the precision of NPF analysis (Weible et al. 2016). This category was added to better account for policy narratives that mention the benefits but not harms of the TRIPS waiver (see the ‘Beneficiary’ example in Table 1), which are important for understanding the narrative strategies around cost-benefit distribution.

For each category, a tweet was coded as '1' if a relevant component was present and '0' if it was absent. The unit of analysis was a single tweet. Given more time, this study would have also analyzed threads and link previews. Both are immediately visible on the Twitter interface (and so arguably part of a tweet), and the latter has not previously been studied using the NPF and would represent a novel contribution to the literature. Due to the simple nature of content analysis and limited resources, all coding was conducted by a single coder without checking for intercoder reliability.

Table 1. Codebook for Elements of Policy Narrative Form

Narrative Element	Definition	Example (Component in bold)
Characters		
Hero	Those capable of acting to achieve or oppose a policy solution.	"I urge the Biden administration to support the proposal to waive vaccine-related IP rights at the WTO to rapidly expand supplies of vaccines." bit.ly/2PD4b8F"
Villain	Those who create harm, inflicts damage or pain upon a victim or opposes the aims of the hero.	"@Reuters Pharma GREED and Biden's DONORS are repugnant. They should support the #TRIPSWaiver at the WTO. The primary issue is not sharing vaccine **IP** "
Victim	Those who are harmed by a particular action or inaction.	"@s_r_constantin we gotta smash intellectual property and put the vaccine tech into the public domain before more 100ks of people die needlessly. main conclusion"
Beneficiary	Those benefited by a particular action or inaction.	"Supporting the emergency waiver of Covid-19-related intellectual property rules will give people around the globe a chance to wake up to a world free from the virus." cdreams.news/3tlMmKb"
Policy Reference	Any reference to the public policy of interest (i.e., the TRIPS Waiver).	"@amnestyusa joins 400 groups in urging @POTUS to End the US Blockade of #COVID19 Emergency #TRIPSWaiver of @wto Rules. Most poor nations will have to wait till 2024 for mass immunization if the US blocks #WTO waiver #VaccineEquity #PeoplesVaccine"
Moral		
Pro-waiver	A proposal for a hero to solve the policy problem by supporting the TRIPS waiver.	"@SecBlinken Ending the COVID19 pandemic as quickly as possible worldwide is necessary to reboot the global economy on which so much of the US economy relies. Please lift the US Blockage of the #TRIPSWaiver . #PeoplesVaccine #VaccinesforEveryone"
Anti-waiver	A proposal for a hero to solve the policy problem by opposing or ignoring the TRIPS waiver.	"To ensure countries maintain and expand access to #COVID19 vaccines, therapeutics and diagnostics, it is critical that the U.S. government support ongoing industry collaboration and oppose well-intentioned but counterproductive efforts to waive #IP rights . https://t.co/rxD07hRDnV "

Table 2. Codebook for Elements of Policy Narrative Content

Cultural Belief	Definition	Example Tweet
Egalitarianism	References to human rights, public goods/funding, justice, apartheid, colonialism, nationalism, solidarity, and/or morality.	"@mattjorgie Honestly nationalize medicine and abolish medical intellectual property. The vaccine was funded by donations and tax dollars so why are companies profiting off of it exactly?"
Individualism	References to the need for private provision, competition, markets, innovation, individual responsibility, and/or freedom.	"@Martin_ASFL of @FMFSouthAfrica discussing South Africa's #TRIPSWaiver for COVID-19 products: "South Africa's problem is not IP and protection for IP products, but simply incompetent governance." Watch PRA's full #WorldIPDay webinar here: https://youtube.com/watch?v=4gTiS5Eocrw "
Hierarchism	References to the need for traditions, stability, institutional reform, top-down solutions, government regulation, expert opinion, and/or scientific evidence.	"Meanwhile, opponents of this waiver argue, I think persuasively, that it isn't really necessary. Developing countries can already issue a CL for a COVID. Furthermore, IP doesn't seem to be a major barrier to vaccine access. 13/ https://www.cato.org/free-trade-bulletin/unnecessary-proposal-wto-waiver-intellectual-property-rights-covid-19-vaccines "
Narrative Strategy	Definition	Example Tweet
Concentration of Costs	Narrowing the group of actors who are negatively impacted by a problem or policy solution.	"A group of House Republicans sent a letter Tuesday to Biden Administration, saying they oppose requests from a number of foreign countries that want to give up American intellectual property (IP) in regards to the COVID-19 vaccine."
Diffusion of Benefits	Expanding the group of actors who are positively impacted by a problem or policy solution.	"Republicans urge Biden to not accept India's proposal at WTO on Covid-19. As a global leader and a force for good, US can do a lot to help other countries overcome the virus. But destroying our rights to intellectual property wouldn't advance our mission"
Concentration of Benefits	Narrowing the group of actors who are positively impacted by a problem or policy solution.	"SHOCKING: Rich countries are vaccinating one person every second while the majority of the poorest nations are yet to give a single #COVID19 dose. @POTUS Suspend patents to stop Big Pharma monopolies. Support #TRIPSWaiver We need a #PeoplesVaccine"
Diffusion of Costs	Expanding the group of actors who are negatively impacted by a problem or policy solution.	"Your daily reminder that the world STILL doesn't have equal access to Covid vaccines. We need @Potus to step in and waive Covid vaccine patents now. #TRIPSWaiver #PeoplesVaccine #WorldImmunizationWeek. https://t.co/n3G2ARB7zl "

Under the NPF, only policy narratives are of interest, so it is imperative to first filter out tweets that do not meet this standard. Additionally, the NPF is only useful if a significant portion of tweets are policy narratives. After all 3,153 tweets were coded for characters and policy reference, 2,440 tweets (77.4%) met the standard for a policy narrative, suggesting that the NPF could be useful for this study. To test this paper's expectations about the use of specific narrative components, every tweet was coded for each character category. By coding all hero tweets for pro- and anti-waiver morals, this study further identified policy narratives, which produced 1011 pro-waiver and 20 anti-waiver narratives. Most of this paper's analysis focused on these 1,031 policy narratives (hereafter, collectively referred to as 'moral narratives').

To test the paper's three expectations on the presence of narrative elements in pro- and anti-waiver policy narratives, all these narratives were coded for specific heroes, beneficiaries, victims, and morals. To test expectations 4 and 5, moral narratives (i.e., pro- or anti-waiver narratives) were coded for mentions of the policy's costs and benefits as per McBeth et al. (2012). After, tweets were coded based on the number of actors claimed to be impacted by the costs and/or benefits. Tweets claiming relatively few actors are negatively impacted are 'concentrating costs,' whereas tweets containing more actors are negatively impacted are 'diffusing costs.' Similarly, tweets that mention fewer actors who are positively impacted are 'concentrating benefits' whereas tweets that mention more actors who are positively impacted are 'diffusing benefits.' For example, tweets about "people around the globe" are diffuse whereas tweets about "Pharma" or the "United States" are concentrated. Finally, all 2,440 policy narratives were coded for the presence of cultural frames to test this paper's last two expectations.

Table 3. Narrative Form Elements in All Tweets

Narrative Element	Yes (%)	No (%)
Policy Reference	2830 (89.8)	323 (10.2)
Policy Reference and at least one character (Policy Narratives)	2440 (86.2)	390 (13.8)
Character	(% out of 2440 policy narratives)	
Hero	1755 (71.9)	685 (28.1)
Villain	1192 (48.9)	1248 (51.1)
Victim	690 (28.3)	1750 (71.7)
Beneficiary	474 (19.4)	1966 (80.6)
Moral	(% out of 1755 Hero tweets)	
Pro-waiver	1011 (57.6)	744 (42.4)
Anti-waiver	20 (1.1)	1735 (98.9)

Findings & Analysis

While coding, an individual tweet was the unit of analysis. However, as some tweets contained multiple references for a given narrative element, this paper analyzed data at both the tweet (e.g., distinctions between anti-waiver and pro-waiver tweets) and reference level (e.g., the types of heroes referenced in anti-waiver tweets) to fully understand these policy narratives.

On the tweet level, the starkest contrast was the quantity of pro-waiver policy narratives (1011) versus anti-waiver policy narratives (20), with anti-waiver narratives only making up 1.9% of all moral narratives and 0.8% of all policy narratives. This does not necessarily mean that there was little opposition to the waiver or that pro-waiver advocates dominated on Twitter. Since only tweets with a hero (intended actor) *and* a moral (call-to-action) can qualify as a moral narrative (i.e., anti-/pro-waiver), this disproportionality instead indicates that more policy narratives that supported the TRIPS Waiver had a clear action. It is plausible that many policy narratives that opposed the Waiver lacked a moral and so were not coded as anti-waiver, and more plausible still that many tweets that did not meet the bar of a policy narratives were opposed to the Waiver. For example, the following tweet does not contain a moral despite seeming opposed to the Waiver: *"A proposal to waive intellectual property on covid-19 vaccines "undermines the very system that produced the life-saving science in the first place", argues Michelle McMurry-Heath in The Economist econ.st/3svq2fH"*

However, these findings on cultural frames suggest that non-moral narratives were not much more likely to be in opposition to the Waiver. As shown in Table 4, anti-waiver narratives never used an Egalitarian frame and pro-waiver narratives never used an Individualist frame. This suggests a strong correlation between support for the Waiver and use of an Egalitarian frame, and opposition for the Waiver and use of an Individualist frame. Assuming that a

relationship exists, then the high usage of Egalitarian frames by tweets without morals (87.4% of no-moral tweets that used a cultural frame were Egalitarian) suggests that they supported the Waiver. Therefore, it seems like the Twitter discourse was dominated by policy narratives in support of the Waiver. It is plausible that actors opposed to the Waiver communicated their stances in some other way, such as meeting directly with the USTR Representative, instead of through Twitter. It is possible that this was a strategic choice because actors opposed to the Waiver did not see their stance as being popular amongst the general public on Twitter.

Table 4. Proportion of Cultural Belief Frame Usage by Policy Narrative Type

Policy Narrative Type	Individualist (%)	Egalitarian (%)	Hierarchical (%)
Anti-waiver	4 (7.7)	0	5 (4.3)
Pro-waiver	0	721 (40)	1 (1)
No moral	48 (92)	1098 (60)	110 (95)
Total	52 (2.6)	1819 (91.5)	116 (5.8)

Notably, 696 (68.8%) of the 1011 pro-waiver moral narratives contained the hashtag “#PeoplesVaccine,” suggesting that over half of pro-waiver moral narratives were part of the People’s Vaccine campaign. Only 857 (35.12%) of the 2440 policy narratives, however, contained “#PeoplesVaccine.” This suggests that a disproportionate amount of pro-waiver discourse, and a significant proportion (over 1/3) of the entire TRIPS Waiver discourse, was driven by the People’s Vaccine campaign. Given their outsized influence, this paper analyzed the data both with and without narratives from the People’s Vaccine.

Form

Turning now to this paper’s expectations, the first three concerned the NPF’s elements of form: heroes, victims, and beneficiaries. This paper’s findings supported two of these three expectations.

Expectation 1: Pro-waiver narratives (which ended up succeeding), will more often reference individuals, rather than entities, as heroes than anti-waiver narratives.

Beginning with heroes, this study identified a total of 1,459 references: 20 references in the anti-waiver moral narratives and 1,439 references to heroes in the pro-waiver narratives. This expectation was supported by the paper's findings, which show that 84.9% of pro-waiver narratives referenced individual heroes compared to 75% of anti-waiver narratives. However, at a Fisher's exact test statistic value of 0.2123, this difference is not significant at $p < .05$. Thus, there is no statistically significant difference in the proportion of individual hero references between the two types of moral narrative. Both sides chose to focus on individual heroes.

The hero most commonly referenced by both sides was President Joe Biden. This was particularly the case for anti-waiver narratives, which almost exclusively referenced Biden. It is possible that this was in response to pro-waiver narratives anchoring onto Biden—the People's Vaccine campaign focused their efforts on President Biden, as shown in this example tweet: "*Today, 175 former heads of state and government and Nobel laureates called on President Biden to waive intellectual property rules for COVID vaccines. Read their open letter here: peoplesvaccinealliance.medium.com/open-letter-former-heads-of-state-and-nobel-laureates-call-on-president-biden-to-waive-e0589edd5704 #PeoplesVaccine*" If one side heavily focuses on a target, it may be strategic for the other side to also focus on that target.

An alternative explanation is that advocates are more likely to reference individual heroes. This paper's first expectation arose from the existing literature, which suggests that that policy narratives that focus on individual heroes tend to be more successful. Hence, this study expected pro-waiver narratives, which succeeded in this specific case study, to reference individuals more often than the 'losing' (anti-waiver) side. It may not be surprising, then, that both sides

emphasized individual heroes since that tends to be more effective. This explanation is reinforced by the fact that the overwhelming majority (81.7%) of individual references were found in tweets containing #PeoplesVaccine, whereas over half (67.7%) of group references were found in tweets without #PeoplesVaccine. It seems reasonable that an advocacy campaign would be more strategic in their narratives, which would help explain the disproportionate concentration of individual references in #PeoplesVaccine tweets. Still, across all tweets, Biden was the most referenced hero. References to Biden made up 70% of all anti-waiver hero references, 56.2% of all pro-waiver hero references, and 62.4% of all pro-waiver hero references without #PeoplesVaccine. Additionally, hero references from pro-waiver narratives *without* #PeoplesVaccine make up $\frac{1}{4}$ of all pro-waiver hero references, reinforcing the disproportionate representation of #PeoplesVaccine narratives in the pro-waiver narrative.

Table 5. Hero References in Pro-/Anti-waiver Policy Narratives

Hero	Anti-waiver (%)	Pro-waiver (%)	
		With #PeoplesVaccine	Without #PeoplesVaccine
Individual	15 (75) (% of column's individual references)	1222 (84.9)	224 (18.3) (% of pro-waiver)
Joe Biden	14 (93.3)	809 (66.2)	196 (24.2)
Katherine Tai	1 (6.7)	219 (17.9)	4 (1.8)
Ngozi Okonjo-Iweala	0	29 (2.4)	1 (3.4)
Other U.S. Government Official	0	152 (12.4)	20 (35.7)
Democrat	0	11 (0.9)	26 (74.3)
Bill Gates	0	1 (0.1)	1 (100)
You	0	1 (0.1)	1 (100)
Republican	0	0	0
Entities or Groups	5 (25) (% of column's group references)	217 (15.1)	147 (67.7) (% of pro-waiver)
U.S. Government	4 (80)	32 (14.7)	30 (93.8)
United States	1 (20)	27 (12.4)	19 (70.4)
World Trade Organization	0	56 (25.8)	20 (35.7)
Americans	0	2 (0.9)	2 (100)
The Pharmaceutical Industry	0	35 (16.1)	26 (74.3)
Wealthy Countries	0	20 (9.2)	17 (85)
World Leaders/Governments	0	14 (6.5)	7 (50)
We/Us	0	13 (6)	10 (76.9)
Political Representatives/ Policymakers	0	10 (4.6)	9 (90)
Western Countries	0	4 (1.6)	4 (100)
The World	0	2 (0.9)	2 (100)
G20	0	1 (0.5)	1 (100)
World Bank	0	1 (0.5)	0
Total	20 (1.4)	1439 (98.6)	314 (25.4)

Expectation 2: Pro-waiver narratives will more often reference America or Americans as beneficiaries or victims than anti-waiver narratives.

The paper's second expectation was not supported by its findings. As shown by Tables 6 and 7, relatively few of the narratives focused on specific non-U.S. countries and most pro-waiver narratives used universalizing language instead: 7.5% of pro-waiver references specified non-US

victims, compared to 47.3% of pro-waiver references pointing at ‘human lives’ or 44.3% of ‘the world,’ which total to 91.6%. Similarly, 20.6% of pro-waiver references were to specific non-US beneficiaries whereas 72.5% regarded ‘human lives’ or ‘the world.’ Conversely, anti-waiver narratives only presented the U.S. economy or security (hereafter, ‘U.S. interests’) or intellectual property as victims. Thus, contrary to expectation 2, pro-waiver narratives did not portray America or Americans as beneficiaries or victims more often than anti-waiver narratives. Instead, pro-waiver narratives were focused on the costs and benefits to human life worldwide, while anti-waiver narratives were focused on the costs that the TRIPS Waiver might impose on U.S. economic or security interests.

The pro-waiver side’s overwhelming emphasis on universalizing language (indiscriminate references to global impact) is driven by the #PeoplesVaccine campaign, as demonstrated by the fact that less than 2% of victim references to ‘human lives’ or ‘the world’ were found in tweets that do *not* contain #PeoplesVaccine. Conversely, the majority (2/3) of references to Americans as victims were found in non-campaign tweets. Furthermore, tweets without #PeoplesVaccine were much more likely to reference countries other than the U.S. than other pro-waiver tweets: over half of both victim and beneficiary references to less wealthy countries, India, and South Africa,³ originated from non-campaign tweets. Interestingly, nearly all pro-waiver references to the global economy were from non-campaign tweets. This suggests that the #PeoplesVaccine was specifically focused on the global humanitarian cost – rather than

³ I categorized India and South Africa separately from other ‘non-U.S. countries’ because they originated the proposal for the TRIPS Waiver, and so were more relevant and visible than most other non-U.S. countries.

the cost to the global economy – and aligns with the overwhelming use of the egalitarian frame (which tends to eschew references to the economy or money).

Overall, there were three different approaches to victim and beneficiary references. Anti-waiver narratives focused on intellectual property, innovation and vaccine manufacturers, and U.S. interests (as victims) or non-U.S. countries (as beneficiaries). Pro-waiver #PeoplesVaccine campaign narratives were focused on the costs and benefits to humans all around the world. Pro-waiver non-campaign narratives were focused on non-U.S. countries and the global economy. The difference between pro-waiver campaign and non-campaign narratives creates ambiguity over which approach led the pro-waiver side to succeed, although the fact that pro-waiver narratives more often consisted of campaign narratives suggests that the pro-waiver campaign narratives may have been more influential in the success of the pro-waiver side.

*Expectation 3: More pro-waiver narratives will reference **both** Americans and non-Americans (as beneficiaries or victims) than anti-waiver narratives.*

Tables 5 and 6 do, however, support this paper's third expectation. There were no references to non-U.S. victims or to U.S. beneficiaries in anti-waiver narratives, while a few of the pro-waiver narratives did simultaneously reference U.S. and non-U.S. beneficiaries and/or victims. Thus, pro-waiver narratives mentioned *both* Americans and non-Americans as beneficiaries or victims more than anti-waiver narratives.

Furthermore, non-campaign pro-waiver tweets largely drove these references: over half of pro-waiver references to U.S. (e.g., Americans) and non-U.S. victims were sourced from pro-waiver narratives without #PeoplesVaccine. The same holds true for beneficiary references, excepting references to less wealthy countries and to U.S. interests. Since pro-waiver narratives

were dominated by the #PeoplesVaccine campaign, this could suggest that referencing both Americans and non-Americans was not a key factor in the success of pro-waiver narratives. Rather, the narrative strategy of expanding the scope of conflict through contrasting costs and benefits—which seems to perform a similar function as referencing both domestic and non-domestic characters—was more commonly used and so may have been more influential. Curiously, the only anti-waiver victim reference was to U.S. interests, rather than American citizens—yet there were no anti-waiver beneficiary references to U.S. interests. This might, however, be explained by the starting position of the anti-waiver side. Since the status quo was aligned with the anti-waiver side (i.e., this policy issue began with the Biden-Harris Administration *not* supporting the Waiver), it might be more intuitive to frame supporting the Waiver as a *loss* to the U.S. and portray the U.S. as a victim, rather than framing *not* supporting the Waiver as a benefit to the U.S.

Table 5. Victim References in Pro-/Anti-waiver Moral Narratives

Victim	Anti-waiver (% of all references)	Pro-waiver	
		With #PeoplesVaccine (% of all references)	Without #PeoplesVaccine (% of pro-waiver references)
Human Lives	0	391 (47.3)	7 (1.8)
The World	0	366 (44.3)	7 (1.9)
Less affluent/Developing Countries	0	44 (5.3)	24 (54.5)
India/South Africa	0	14 (1.7)	14 (100)
Global South	0	4 (0.5)	3 (75)
Us (Americans)	0	3 (0.4)	2 (66.7)
Countries other than the U.S.	0	2 (0.2)	2 (100)
Intellectual Property	2 (100)	0	0
U.S. Economy/Security	2 (100)	0	0
Equity/Justice	0	1 (0.1)	0
Global Economy	0	1 (0.1)	1 (100)
Total	2 (.2)	826 (99.8)	316 (38.3)

Table 6. Beneficiary References in Pro-/Anti-waiver Moral Narratives

Beneficiary	Anti-waiver (% of all references)	Pro-waiver	
		With #PeoplesVaccine (% of all references)	Without #PeoplesVaccine (% of pro-waiver references)
Human Lives	0	221 (37)	9 (4.1)
The World	0	212 (35.5)	42 (19.8)
Less affluent/Developing Countries	0	80 (13.4)	9 (11.3)
U.S. Economy/Security	0	22 (3.7)	1 (4.5)
Countries other than the U.S.	2 (3.3)	20 (3.3)	11 (55)
Global South	1 (16.7)	16 (2.7)	0
Equity/Justice	0	10 (1.7)	4 (40)
India/South Africa	0	7 (1.2)	4 (57.1)
Global Economy	0	6 (1)	5 (83.3)
Vaccine Manufacturers	2 (33.3)	0	0
Elections	0	2 (0.3)	0
Innovation	1 (16.7)	0	0
Human Rights	0	1 (0.2)	0
Researchers	0	1 (0.2)	1 (100)
Total	6 (1)	598 (99)	69 (11.5)

Overall, the difference in hero, victim, and beneficiary references between pro- and anti-waiver narratives suggests that pro-waiver narratives more commonly addressed the global scope of this policy debate. Although the policymaking process only involves the U.S., the policy issues of COVID-19 and vaccine access are global. By using universalizing language as well as simultaneously referencing Americans and non-Americans, pro-waiver advocates may have signaled to U.S. policymakers that they understood the nature of the issue by recognizing the global scope of the TRIPS Waiver. Conversely, anti-waiver advocates focused on domestic heroes and costs, as well as foreign beneficiaries, without integrating the two into a global frame. Thus, pro-waiver advocates were more able to recognize that this TRIPS Waiver case involved GPGs (namely, global public health and COVID-19 vaccines).

Content

The paper's remaining four expectations concerned the content of policy narratives. Three of these four expectations were supported by the findings.

Expectation 4: To contain the scope of conflict, anti-waiver narratives (which represent the 'winning' status quo) will, compared to pro-waiver narratives, more often a) reference benefits of the status quo (not supporting the waiver) and b) stress the diffusion of benefits and the concentration of costs.

Expectation 5: To expand the scope of conflict, pro-waiver narratives (which represent the 'losing' side seeking change) will, compared to anti-waiver narratives, more often a) reference costs of the status quo and b) stress the diffusion of costs and the concentration of benefits.

Expectations 4 and 5 collectively predict that anti-waiver tweets will emphasize the benefits of the status quo (i.e., not supporting the TRIPS Waiver) whereas pro-waiver tweets will emphasize the costs of the status quo, and that anti-waiver tweets will present the benefits of the status quo as diffuse but the costs as concentrated while pro-waiver narratives will do the converse. As shown by Table 7, both expectations were largely supported. Anti-waiver tweets not only emphasized the benefits of the status quo over the costs of breaking it (i.e., supporting the TRIPS Waiver), but pro-waiver tweets also emphasized the costs of the status quo over the benefits of breaking it. Similarly, anti-waiver tweets more often portrayed the status quo's benefits costs as concentrated, whereas pro-waiver tweets more often portrayed the benefits of the status quo as concentrated and its costs as diffused. However, anti-waiver tweets did not more often present benefits as diffused: rather, half of the narratives presented the benefits as diffused and half presented the benefits as concentrated.

Table 7. Narrative Strategies Used in Pro-/Anti-waiver Moral Narratives

Moral Narrative Type	Yes (%)	No (%)
Anti-Waiver ('Winning')		
Identification of Costs	1 (5)	19 (95)
Concentrated?	1 (100)	0
Identification of Benefits	6 (30)	14 (70)
Diffused?	3 (50)	3 (50)
Pro-Waiver ('Losing')		
Identification of Costs	603 (59.6)	408 (40.4)
Diffused?	586 (97.2)	17 (2.8)
Identification of Benefits	125 (12.4)	886 (87.6)
Concentrated?	125 (100)	0
<i>Pro-Waiver without #TRIPSWaiver</i>	<i>% of pro-waiver tweets</i>	
Identification of Costs	72 (11.9)	0
Diffused?	72 (12.3)	0
Identification of Benefits	10 (8)	0
Concentrated?	10 (8)	0

Unlike with the narrative elements of form, pro-waiver campaign and non-campaign tweets that used narrative strategies ended up looking very similar. *All* non-campaign tweets identified diffuse costs and concentrated benefits, even though they made up only a small portion of the pro-waiver tweets that used this narrative strategy. Additionally, relatively more non-campaign tweets identified costs and benefits compared to campaign tweets, possibly suggesting that the use of this narrative strategy (i.e., identifying costs and benefits) might not be as crucial as using it strategically (i.e., the choice to portray the costs as diffuse and benefits as concentrated) to manipulate the scope of conflict. This is supported by how all the moral narratives that diffused the costs *also* concentrated the benefits.

This data may further explain why this paper's second expectation was not supported. Using universalistic language that references the entirety of humanity or the world expands the scope of conflict more than only referencing non-U.S. countries or U.S. interests. Combined with the data on narrative form elements, however, the anti-waiver findings are quite surprising. Despite anti-waiver narratives focusing on the *benefits* of the status quo, they did not specify America or Americans as beneficiaries. Given that the policymaking process in this case is domestic, it seems counterintuitive for anti-waiver advocates to focus on the benefits of their preferred solution to non-constituents.

Expectation 6: Pro-waiver narratives will, more often than not, use an egalitarian cultural frame.

The data in Table 8 supports expectation 6: 71.4% of all pro-waiver narratives used an egalitarian cultural frame. Furthermore, 99.9% of cultural frames in pro-waiver narratives were egalitarian. Not only did pro-waiver narratives that used a cultural frame almost exclusively use the egalitarian frame, but anti-waiver narratives also never used an egalitarian frame. This is partly because many tweets lacked a moral and so did not count as pro- or anti-waiver tweets. Some narratives that opposed the waiver mentioned equity, which is a primary concern in egalitarianism, but did not count as anti-waiver tweets. For example, the following tweet contested the need for the TRIPS Waiver, "[@jdcmedlock @TheOmniLiberal](#) *Equitable distribution is a real issue, production is an issue, materials is an issue, but specifically waiving Covid vaccine intellectual property has not been. Whether vaccine IP is waived or not is not going to produce more doses anytime soon. investors.modernatx.com/news-releases.*" However, the tweet did not reference a hero or call to action, but only disputes the problem. These kinds of narrative lack morals and cannot be considered anti-waiver (or pro-waiver) narratives.

Unsurprisingly, pro-waiver narratives rarely used hierarchical frames. Since hierarchists prefer tradition and authority, they may be less likely to advocate a departure from the status quo. While it is possible to frame pro-waiver morals as part of or an improvement upon existing norms, as evidenced by the single pro-waiver hierarchy narrative, the vast majority of moral narratives portrayed the TRIPS Waiver as a break from the status quo. Furthermore, the single use of a hierarchical frame on the pro-waiver side came from a non-campaign tweet, which may suggest that the use of this frame was less strategic.

Table 8. Cultural Beliefs in All Policy Narratives

Policy Narrative Type	Yes (%)	No (%)
Anti-Waiver ('Winning')	9 (45)	11 (55)
Individualist	4 (44.4)	5 (55.6)
Egalitarian	0	9 (100)
Hierarchical	5 (55.6)	4 (44.4)
Pro-Waiver ('Losing')	722 (71.4)	289 (28.6)
Individualist	0	722 (100)
Egalitarian	721 (99.9)	1 (0.1)
<i>Without #PeoplesVaccine</i>	74 (10.3)	241 (89.7)
Hierarchical	1 (0.1)	721 (99.9)
<i>Without #PeoplesVaccine</i>	1 (100)	
No Moral	1256 (89.1)	153 (10.9)
Individualist	48 (3.8)	1208 (96.2)
Egalitarian	1098 (87.4)	158 (12.6)
Hierarchical	110 (8.8)	1146 (91.2)

Expectation 7: Narratives using a cultural frame will more often reference the entity of America than an individual.

This paper’s final expectation was that narratives using a cultural frame will more often reference the entity of America than an individual. As shown in Table 9, this was overwhelmingly contradicted. Instead, the character of the US was almost never referenced in either type of narrative. Originally, this expectation was constructed in an attempt to combine international relations literature on strategic narratives and country identity with past NPF findings. However, these findings instead only reinforce the past NPF findings, which is that references to individual heroes are more common and perhaps more effective. This may suggest that the distinction between policy narratives around domestic policy and global policy are not large, provided that the policymaking stays at the domestic level. Alternatively, this contradiction could imply that the NPF’s predictions may hold for both domestic and global policy contexts.

Table 9. Hero References in Cultural Frames⁴

	<i>Individualist</i>	<i>Egalitarian</i>	<i>Hierarchical</i>	
	Anti-	Pro-	Anti-	Pro-
America	0	10 (1)	0	0
Individual	1 (100)	978 (99)	2 (100)	4 (100)

Though the overwhelming majority of narratives with cultural frames referenced individual heroes, only egalitarian narratives referenced America as a hero. This means that anti-waiver narratives using cultural frames did not portray America as a hero, which omits the opportunity to leverage the state-narrative in an anti-waiver narrative. Conversely, any potential

⁴ The number of hero references in egalitarian narratives exceeds the number of policy narratives that used egalitarian frames because some narratives referenced more than one hero.

influence on America's state-narrative will have come from pro-waiver egalitarian narratives, which may have increased the efficacy of pro-waiver and/or egalitarian narratives overall.

Overall, pro-waiver narratives were largely shaped by the #PeoplesVaccine campaign. A majority of pro-waiver narratives portrayed Joe Biden as a hero, and human lives and/or the entire world as victims and beneficiaries. Thus, many pro-waiver narratives took the form of narrowly targeting an individual potential actor with a huge range of costs [of not passing the Waiver] and/or benefits [of passing the Waiver]. This is supported by the content of pro-waiver narratives: a majority of pro-waiver narratives focused on the diffuse costs of *not* passing the Waiver, and nearly all pro-waiver narratives with a cultural frame used an egalitarian frame. While egalitarian frames are not inherently universalizing, unlike the narrative strategy of expanding the scope of conflict, egalitarian frames focus on the equality of everybody which complements universalizing language (particularly when compared to individualist frames). Additionally, the moral narratives with a cultural frame that referenced America as a hero were egalitarian pro-waiver narratives. This means that the likeliest influence on the U.S.'s state-narrative comes from these tweets, reinforcing the importance of egalitarian frames in this case.

Anti-waiver narratives also portrayed Joe Biden as a hero – even more so than pro-waiver narratives – but only made reference to the humanitarian and global *benefits* of supporting the Waiver. Thus, the main divergence in the form of pro-waiver narratives compared to anti-waiver narratives was through the emphasis on costs to human life worldwide. The content of anti-waiver narratives, on the other hand, was much more dissimilar to the content of pro-waiver narratives. Anti-waiver narratives tended to focus on the benefits of the status quo and attempted to contract the scope of conflict. Furthermore, not as many anti-waiver narratives identified either

costs or benefits. Finally, anti-waiver narratives eschewed the egalitarian cultural frame, with a slight majority of anti-waiver narratives with cultural frames using a hierarchical frame.

Since the pro-waiver side ended up successful, this may suggest that the form and content elements that distinguished pro-waiver narratives from anti-waiver narratives were the most effective in this TRIPS Waiver case. The key differences lay in the tendency for pro-waiver narratives to reference global beneficiaries and victims, expand the scope of the conflict, and use an egalitarian cultural frame. Even policy narratives lacking a moral tended to use an egalitarian frame, suggesting that this was the most important cultural belief in this case.

However, these distinguishing elements may not be the only (or even primary) reason for the apparent success of these pro-waiver narratives. For example, it may be that these pro-waiver narratives may not have been effective had they not targeted Joe Biden, but this is obscured by the fact that this focus was common to both pro- and anti-waiver narratives. Finally, it is important to recognize that these policy narratives are but one small part of this case of U.S. policymaking on the TRIPS Waiver. This is especially worth recalling given that the #PeoplesVaccine campaign was so prominent in the Twitter discourse and that campaigns tend to exert influence in other ways (e.g., by meeting directly with policymakers).

Overall, inferring from the apparent success of the pro-waiver side—which may have largely derived from the #PeoplesVaccine campaign, the most effective narrative strategies in this case of U.S. policymaking over the TRIPS Waiver involved a) targeting a specific hero; b) aligning victim and beneficiary references with the global scope of the problem; c) manipulating the scope of the problem; and using egalitarian cultural frames. This provides a starting point for investigating whether these strategies would be effective for other instances of domestic

policymaking for GPG provision, such as instances of policymaking over the TRIPS Waiver that occurred during the same time but in different countries.

Policy Implications

This research may have implications for three types of policy stakeholders: advocates, policymakers, and researchers. These can likely be extended to research for similar policy cases, such as cases concerning GPGs related to public health, but it is unclear whether these implications will hold true in other GPGs. Thus, more research should be done to see if these implications hold for non-health GPGs or other types of global policy.

For Advocates

Inferring from the most common strategies used by pro-waiver advocates, one implication is that advocates for public health GPGs may see more success with universalizing language. Since this study only aimed to describe the factors that may have affected the Biden-Harris Administration's decision on the TRIPS Waiver, understanding the reasons behind the efficacy of the pro-waiver narratives is out of scope for this research. However, it seems plausible that congruence between the global scope of the policy issue (a GPG) and the language (universalizing) increases the efficacy of a policy narrative, similar to the micro-level hypothesis around the efficacy of congruence put forward by M. D. Jones and McBeth (2010).

In terms of character references, portraying specific individuals as heroes may be more effective than abstract groups or entities like the US. Additionally, pro-waiver narratives ended up being successful despite largely not referencing domestic constituents. Thus, it seems that referencing a country's constituents is not a prerequisite for narrative success when trying to persuade that country's government to provide GPGs. However, more research needs to be done to explore whether referencing domestic constituents *increases* the efficacy of narratives, even if it is not essential for the success of pro-GPG advocacy.

The implications of the near-exclusive use of egalitarian cultural frames by pro-waiver advocates are unclear, so this research raises several possibilities for further exploration. Unlike pro-waiver advocates, the ‘failed’ anti-waiver narratives used a mix of individualist and hierarchical cultural frames. Thus, one possible implication is that sticking to a single cultural frame—rather than trying several different frames—leads to more effective advocacy. Alternatively, it may be that pro-waiver narratives were more dominant at the beginning and established the egalitarian frame as the ‘correct’ cultural frame for the debate, leading any narratives that did not use an egalitarian frame to be less effective. To test this, this study could have constructed a timeline and see how the policy narratives of this debate evolved over time. Overall, the differences in the way that pro-waiver and anti-waiver advocates used cultural frames suggest that advocates may wish to tailor policy narratives to factor in culture, as well as traditional political or economic costs and benefits.

For Policymakers

The disparity between the prevalence of pro-waiver and anti-waiver morals suggests that, at least for issues that may be considered humanitarian crises, those opposed to a potentially life-saving policy may communicate their opposition indirectly, such as highlighting the policy’s negative consequences, rather than directly calling for a policymaker to reject the policy. Thus, policymakers should be cognizant of the different ways in which advocates communicate preferences that may otherwise appear less socially acceptable.

Furthermore, many policy-relevant tweets contested narratives but did not contain both a moral and character, and so did not meet the bar for a policy narrative under the NPF. Most tweets that requested more information or expressed uncertainty about the TRIPS waiver fell in this category. This suggests that in cases of public health GPG provision policymakers may wish

to pay attention to actors without strong policy preferences to achieve a more nuanced understanding of a situation. Similarly, a lot of policy narratives lacked a moral (call-to-action) but still contributed information, including academic research, to the debate over the TRIPS waiver. Thus, policymakers may benefit from considering tweets that do not directly target them or lack a call-to-action, as they could still provide useful information. These implications may be especially important for cases where there is debate and there is ambiguity over the most appropriate policy outcome.

The use of cultural beliefs may provide insight into how US actors view the identity of the US. This may be useful for policymakers to not only glean how US residents view the US state narrative, but also how US residents hope to see it evolve. Drawing from literature on state-narratives, the way in which US actors use cultural frames could potentially affect the way that the US identity evolves. For example, the prevalence of egalitarian frames within pro-waiver narratives and the corresponding shift in the US's support for the Waiver could lead to a shift in the US's state-narrative towards egalitarianism. This is important because public policy can be influenced by culture, such as the participation of governments in treaties being affected by the relative cultures in the national decision making arena (Rayner 1991). This research suggests that understanding the implications of both policy decisions and citizens' perceptions may help improve policymakers' understanding of international policymaking. Additionally, the presence of cultural frames within this policy case suggests that Twitter may be an important domain for understanding public sentiment on state-narrative and global issues. The rapidly evolving nature of social media may enable policymakers may to understand how their response to an issue affects how residents view and shape the US's state-narrative in real-time.

Finally, the diversity of policy-relevant tweets suggests that Twitter is becoming a platform for a wide range of actors, from experts to advocates, to construct narratives around policymaking in the US. This extends beyond campaign hashtags to long debate threads and jokes, which are more nuanced than simple polls such as “NEW POLL: Majority oppose proposal to temporarily waive intellectual property rights on COVID-19 vaccines” (The Hill 2021), yet more cheaply and easily accessed than detailed surveys or interviews. Thus, US policymakers may improve their understanding of an issue by considering Twitter policy narratives (e.g., investing in Twitter data analysis for an issue). For example, many of the organizations that met with Katherine Tai (e.g., Public Citizen, BIO) expressed strong policy preferences (i.e., posted pro-/anti-waiver tweets), yet there was significant debate around the TRIPS waiver from actors lacking such strong preferences. Furthermore, not all policy-relevant tweets were policy narratives (e.g., they lacked a character) and so policymakers may wish to look at all relevant tweets. Helpfully, many such tweets originate from specific Twitter accounts (e.g., research organizations), so policymakers may want only to consider policy-relevant tweets from established organizations.

For Academics

Aside from the specific research extensions outlined above, this paper further includes novel research directions that pertain to the broader question of, “in cases of U.S. policymaking for the provision of global public goods, what narratives are constructed?”

Since the paper’s expectations that were informed by International Relations (IR) literature were not supported, it would be fruitful to explore whether successful policy narratives around public health goods differ between the global and domestic levels. More broadly, it would be useful to explore how the efficacy of narrative elements change or stay the same across global

versus domestic issues. In particular, it would be interesting to see whether NPF predictions from domestic cases hold on the global stage.

As articulated above and in existing IR literature, state-narratives may be shaped by policy decisions, such as the Biden-Harris decision to sign onto the TRIPS Waiver. It would be interesting to see if this relationship goes the other way: perhaps cultural frames affect the convincingness of one's orientation towards the world. For example, egalitarian beliefs correlate to being higher on the international disposition scale (i.e., leaning towards international cooperation). Thus, if the US seeks to shift its state-narrative towards/away from international cooperation (e.g., trying to provide global public goods), then it may want to adopt more language inspired by a certain cultural belief.

Conclusion

This paper began with two research questions, “What narratives did US Twitter accounts construct around the impact of the TRIPS Waiver on the provision of the COVID-19 vaccine as a global public good?” and “Given the Executive Branch’s decision to support the TRIPS Waiver, what might have allowed pro-waiver narratives to succeed?” By using the NPF to investigate these two questions, this paper identified several factors that may have affected the Biden-Harris Administration’s decision on the TRIPS Waiver: the type of hero, victim, and beneficiary that is referenced; reframing the scope of conflict; and the use of cultural frames. This research found that the hypotheses informed by existing NPF literature were largely supported by the data, which supports the potential for the NPF to be a useful tool in analyzing domestic cases of policymaking for global policy issues. On the other hand, the hypotheses that were based on IR literature largely were not supported, which suggests a potential area for further exploration.

This research has described the different kinds of policy narratives that addressed the TRIPS Waiver on Twitter during the window of time between the inauguration of the Biden-Harris Administration and their decision to support the TRIPS Waiver (i.e., success for the pro-waiver advocates). These distinctions could represent one step towards answering the broader question, “In cases of U.S. policymaking for the provision of global public goods, what narratives are constructed?” Furthermore, by using the TRIPS Waiver decision by the Biden-Harris Administration as an example of domestic policymaking for GPG provision and applying the NPF to analyze this case, this research provides a novel contribution to NPF literature by intersecting it with existing literature around GPGs and IR to extend its application to global policy issues. While many NPF studies on the global policy issue of climate change exists, and climate change mitigation can be considered a problem of GPG provision, there is a dearth of

literature on the use of the NPF for specifically analyzing cases of GPG provision. Additionally, this thesis contributes to the nascent field of NPF research that examines Twitter narratives.

Yet, this research represents only one piece of the broader puzzle around policy narratives found in cases of domestic policymaking for GPG provision. To further understand the narratives of this specific TRIPS Waiver case, it would be illuminating to examine narratives originating from other countries such as the UK (which held similar stances to the US) and India (which was on the opposing end). Even more broadly, it would be useful to compare the narratives of the TRIPS Waiver case to other cases of public health GPG provision, such as vaccine provision for other pandemics; other types of GPG provision, such as climate change (to which COVID-19 has already been compared in policymaking literature); and issues that may not qualify as cases of GPGs (e.g., domestic humanitarian crises). The implications of this research also suggest new directions for the field of narrative research, such as the intersection of IR and the NPF.

Regardless of the many ambiguities that remain, this thesis indicates clear distinctions between pro-waiver and anti-waiver narratives in the US Twitter discourse on the provision of COVID-19 vaccines, and further suggests that the NPF can be useful for analyzing Twitter narratives on cases of domestic policymaking for global policy issues. Therefore, the NPF may be a promising tool for elucidating complex narratives that transcend borders and policy issues. As our society becomes increasingly interconnected and globalized, the NPF's potential for increasing our understanding may only grow in importance.

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