

The textual dynamics of international policymaking: A new corpus of UN resolutions, 1946-2018*

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Abstract

I introduce a new dataset of all United Nations Security Council (UNSC) and United Nations General Assembly (UNGA) resolutions passed from 1946-2018, as well as machine-learning-based measures of their references to other resolutions, textual alignment, and topics. I suggest applications of this data for a variety of questions in international relations from the development of international law to the influence of state power in international organizations. I illustrate the utility of this dataset by investigating why policymakers employ references in the drafting of legal documents, and how the inclusion of these references affects political outcomes. I draw on theories of international lawmaking to argue that for states deciding whether to vote in favor of a resolution, these references, by signaling ideological consistency with a state's foreign policy goals and existing consensus amongst negotiators, serve as a strategy to obtain support for resolutions. I find that the inclusion of references does increase political support for resolutions, using my measure of textual alignment to hold resolution text constant while isolating variation in the inclusion of references. I find that even accounting for foreign aid flows as a canonical alternative explanation of vote choice, reference dynamics are an important predictor of state support for resolutions.

Word Count: 5,932

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Introduction

To shed light on the dynamics of policymaking and politics in multilateral legislative settings, I construct a novel dataset of all 17,324 resolutions adopted by the United Nations General Assembly (UNGA) and the United Nations Security Council (UNSC) from 1946-2018. While individual resolution texts are available for public access, I process these texts to create a functional corpus that allows researchers to access all resolutions at once. In addition to constructing this corpus, I extract several key features—references, topics, and similarity—that researchers can use to address important questions in international policymaking and cooperation. From the resolution corpus, I extract 132,881 references to UN resolutions, construct measures of textual similarity between resolutions, and identify resolutions by topic areas.

By examining features of legal texts in the multi-issue context of the UN and leveraging differences between sub-institutional units, scholars can examine the effects of these features on the development and adoption of law, as well as how the political dynamics of multilateral negotiations between state actors affect policymaking. This data contribution will enable future scholars to address a variety of questions about legislative practices in international organizations (IOs) and intervene in important debates in the field, such as how the design of international law affects compliance (e.g., [Johns 2015](#)), how power influences the creation of law (e.g., [Krasner 1991](#)), and how rational actors design international law (e.g., [Rosendorff and Milner 2001](#)).

While I suggest that insights drawn from this corpus can illuminate dynamics in international policymaking and negotiation dynamics generally, my data collection focuses on the UN. I contend that this UN-specific data is an important contribution for several reasons, all of which facilitate robust empirical tests of theoretical questions in international relations and international law. First, the UN is a robust data source, allowing for fine-grained empirical analysis. States engage in repeated interaction year after year in the same institutional environment, which creates opportunities for the analysis of changes in legislative practices and protocols. Further, the UN is a multi-issue forum, which provides an opportunity to examine variation in such legislative practices

across issue areas.

Second, the matters that the UN addresses in its resolutions are of substantive importance. The UNSC is unique among IOs in its ability to compel state action through hard law, and to authorize the use of force. The UNSC develops international law through its declarative, interpretive, promotive, and enforcement functions (von Einsiedel, Malone, and Ugarte 2015). While resolutions adopted by the UNGA do not constitute hard law, they recognize international norms, call for the development of legally binding treaties, allocate development aid, and set institutional priorities across a variety of topics. Resolutions of both the UNSC and UNGA are influential in other institutional contexts (e.g., Öberg 2005). States, therefore, have substantial incentives to invest time and political capital in negotiating both types of resolutions.

Third, insights drawn from studies of UN politics and policymaking are expected to be generalizable to other contexts of interest to scholars of international relations. The UN, as one of the most prominent IOs, is likely to be a source of diffusion for other IOs through socialization, emulation, and learning (e.g., Lenz 2012; Sommerer and Tallberg 2019). Other data drawn from the UN context—including voting records (Bailey, Strezhnev, and Voeten 2017) and diplomatic speeches (Baturu, Dasandi, and Mikhaylov 2017)—have been widely and fruitfully applied to a variety of research questions in international relations. This dataset substantially extends the time period covered by previous studies of UN resolution texts, allows for the first comparison of UNGA and UNSC activity, and makes the text and its key features available for large-scale analysis.

To illustrate the utility of the resolutions corpus, I probe the question of why negotiators in IOs employ references when drafting legal texts. Previous scholarship has examined the impact of citations in a variety of international judicial settings (e.g., Voeten 2010; Charlotin 2017). Yet, multilateral legislative institutions are a vastly different context. Unlike international judges, diplomatic negotiators must cultivate direct political support—i.e., sponsorship and votes—for their proposals. Does the inclusion of references matter for political outcomes? External political considerations alone are not sufficient to explain variation in states' likelihood of supporting resolutions: we must also account

for differences in the substantive content and legal design of resolutions.

I argue that references are a political tool used by negotiators in the UN to develop support for resolution proposals. I posit that the inclusion of references serves a signaling function to negotiators of consensus among negotiators and consistency with the state's previous foreign policy positions. Using my measure of textual similarity, I can compare resolution texts that are otherwise identical to isolate the effects of the inclusion of additional references. I show systematically that across resolutions that are otherwise substantively identical, countries are more likely to sponsor and vote in favor of a resolution if it cites one or more resolutions sponsored by that country or by its allies, even after accounting for an important alternative explanation: foreign aid allocation. These findings have implications for the role of power in the politics of IOs, demonstrating that legal tools—such as strategic use of references—can gain support for policies even after accounting for external political considerations like foreign aid payments.

UN resolution corpus

The quantitative analysis of legal texts in previous work has primarily relied on manual hand-coding. Though studies based on hand-coding have produced valuable insights, such methods are labor-intensive. Relying on manual coding limits the number of agreements that can be examined by researchers, or forces the researcher to simplify their measure to one that can be more objectively and quickly evaluated. The development of text-as-data methodologies and their increasing popularity in political science applications presents an opportunity to broaden the horizon of quantitative analysis of legal instruments. I apply these methodologies to examine variation in legislative practices on a large scale at the UN.

Data collection

I constructed an original corpus consisting of all UNGA and UNSC resolutions passed since the establishment of the UN. These data are summarized in Table 1. My data collection work proceeded as follows. First, I scraped all UNGA and UNSC resolutions

posted on their respective official websites.¹ These resolutions—one of the key legislative outputs of the UN— are negotiated principally by state representatives at the UN, in consultation with officials in state capitals and the UN Secretariat (Smith 2006). The negotiation process encompasses both formal meetings of all member states and informal meetings, which are often based on regional groupings.

Second, since older resolutions are posted as scanned images, I then used optical character recognition (OCR) software to convert each document into a plain-text format. As shown in Figure 1, resolution formats changed substantially over time. To address this challenge, I used a series of period-specific regular expressions to remove extraneous text and isolate the actual resolution from the image on each page.² This process yielded a cross-validated corpus consisting of 14,993 UNGA resolutions and 2,331 UNSC resolutions, spanning the time period from 1946-2018.

Feature extraction

To study patterns of resolution drafting strategies in this corpus, I extracted three types of features from each document: references, topics, and textual similarity. For more technical details on the procedures for feature extraction, see Section 1 of the Appendix. I briefly summarize the methodology for extracting each feature type below, as well as their relevance for studies of international cooperation and policymaking.

First, I extracted all *references* to other UNGA and UNSC resolutions from each text. Using regular expressions, I extract 114,943 references from the UNGA and 17,938 references from the UNSC. References are highlighted in blue in Figure 1. These references are analogous to citations—explicit invocations of previous decisions or legal texts. Citation networks have been studied to reveal institutional practices in the World Trade

¹See the [UNGA](#) and [UNSC](#) indices for details. I am only able to observe the final resolution texts—not earlier draft versions.

²For example, headers and footers, parallel translation text, or trailing language from other documents. Regular expressions identifying header text were also employed to separate multiple resolutions contained in the same pages of text.

Figure 1: Examples of changing resolution formats in the UNGA.

Resolutions adopted on the reports of the Fourth Committee 75

teries and at the creation by the administering Powers of military bases and installations in contravention of the relevant resolutions of the General Assembly.

Deplores the refusal of some administering Powers to allow visiting missions of the United Nations to visit these Territories.

Conscious that these situations require the continued attention and the assistance of the United Nations in the achievement by the peoples of these Territories of their objectives, as embodied in the Charter of the United Nations and in the Declaration on the Granting of Independence to Colonial Countries and Peoples.

Aware of the special circumstances of geographical location and economic conditions concerning some of these Territories.

1. *Approves* the chapters of the report of the Special Committee on the Situation with regard to the Implementation of the Declaration on the Granting of Independence to Colonial Countries and Peoples relating to these Territories;
2. *Reaffirms* the inalienable right of the peoples of these Territories to self-determination and independence;
3. *Calls upon* the administering Powers to implement without delay the relevant resolutions of the General Assembly;
4. *Reiterates* its declaration that any attempt aimed at the partial or total disruption of the national unity and the territorial integrity of colonial Territories and the establishment of military bases and installations in these Territories is incompatible with the purposes and principles of the Charter of the United Nations and of General Assembly resolution 1514 (XV);
5. *Urges* the administering Powers to allow United Nations visiting missions to visit the Territories, and to extend to them full co-operation and assistance;
6. *Decides* that the United Nations should render all help to the peoples of these Territories in their efforts freely to decide their future status;
7. *Requests* the Special Committee to continue to pay special attention to these Territories and to report on the implementation of the present resolution to the General Assembly at its twenty-second session;
8. *Requests* the Secretary-General to continue to provide all possible assistance in the implementation of the present resolution.

*1500th plenary meeting,
20 December 1966.*

2233 (XXI). Information from Non-Self-Governing Territories transmitted under Article 73 e of the Charter of the United Nations

The General Assembly,

Recalling its resolution 1970 (XVIII) of 16 December 1963, in which it requested the Special Committee on the Situation with regard to the Implementation of the Declaration on the Granting of Independence to Colonial Countries and Peoples to study the information transmitted to the Secretary-General in accordance with Article 73 e of the Charter of the United Nations and to take it fully into account in examining the situation with regard to the implementation of the Declaration.

Recalling also its resolution 2109 (XX) of 21 December 1965, in which it approved the procedures adopted by the Special Committee for the discharge of the func-

tions entrusted to it under resolution 1970 (XVIII)⁴¹ and requested the Committee to continue to discharge those functions in accordance with the said procedures.

Having studied the chapter of the report of the Special Committee dealing with the transmittal of information under Article 73 e of the Charter and the action taken by it in respect of that information.⁴²

Having also examined the report of the Secretary-General on this information.⁴³

1. *Approves* the chapter of the report of the Special Committee on the Situation with regard to the Implementation of the Declaration on the Granting of Independence to Colonial Countries and Peoples relating to the information from Non-Self-Governing Territories transmitted under Article 73 e of the Charter of the United Nations;
2. *Expresses its profound regret* that, despite the repeated recommendations of the General Assembly, including the most recent recommendation contained in resolution 2109 (XX), some Member States having responsibilities for the administration of Non-Self-Governing Territories have not seen fit to transmit information under Article 73 e of the Charter or have done so insufficiently or too late;
3. *Once again urges* all Member States which have or which assume responsibilities for the administration of Territories whose peoples have not yet attained a full measure of self-government to transmit, or continue to transmit, to the Secretary-General the information prescribed in Article 73 e of the Charter, as well as the fullest possible information on political and constitutional development;
4. *Requests* the Special Committee to continue to discharge the functions entrusted to it under General Assembly resolution 1970 (XVIII) in accordance with the procedures referred to above.

*1500th plenary meeting,
20 December 1966.*

2234 (XXI). Offers by Member States of study and training facilities for inhabitants of Non-Self-Governing Territories

The General Assembly,

Recalling its resolution 2110 (XX) of 21 December 1965,

Having examined the report of the Secretary-General on offers by Member States of study and training facilities for inhabitants of Non-Self-Governing Territories under General Assembly resolution 845 (IX) of 22 November 1954,⁴⁴

1. *Takes note* of the report of the Secretary-General;
2. *Urges* Member States to continue to offer scholarships to the inhabitants of the Non-Self-Governing Territories;
3. *Requests* Member States to facilitate the travel of students from Non-Self-Governing Territories seeking to avail themselves of the educational opportunities which are offered to them;
4. *Requests* the Member States offering scholarships to take into account the necessity of furnishing com-


⁴¹ *Ibid.*, Nineteenth Session, Annexes, annex No. 8 (part I) (A/5900/Rev.1), chapter II, appendix I.

⁴² *Ibid.*, Twenty-first Session, Annexes, addendum to agenda item 23 (A/6300/Rev.1), chapter XXIII.

⁴³ *Ibid.*, agenda items 64 and 71, document A/6455.

⁴⁴ *Ibid.*, document A/6503.

United Nations A/RES/59/127

 **General Assembly**

Distr.: General
25 January 2005

Fifty-ninth session
Agenda item 79

Resolution adopted by the General Assembly on 10 December 2004

*[on the report of the Special Political and Decolonization Committee
(Fourth Committee) (A/59/474)]*

59/127. Information from Non-Self-Governing Territories transmitted under Article 73 e of the Charter of the United Nations

The General Assembly,

Recalling its resolution 1970 (XVIII) of 16 December 1963, in which it requested the Special Committee on the Situation with regard to the Implementation of the Declaration on the Granting of Independence to Colonial Countries and Peoples to study the information transmitted to the Secretary-General in accordance with Article 73 e of the Charter of the United Nations and to take such information fully into account in examining the situation with regard to the implementation of the Declaration, contained in General Assembly resolution 1514 (XV) of 14 December 1960.

Recalling also its resolution 58102 of 9 December 2003, in which it requested the Special Committee to continue to discharge the functions entrusted to it under resolution 1970 (XVIII).

Strucing the importance of timely transmission by the administering Powers of adequate information under Article 73 e of the Charter, in particular in relation to the preparation by the Secretariat of the working papers on the Territories concerned.

Having examined the report of the Secretary-General.¹

1. *Reaffirms* that, in the absence of a decision by the General Assembly itself that a Non-Self-Governing Territory has attained a full measure of self-government in terms of Chapter XI of the Charter of the United Nations, the administering Power concerned should continue to transmit information under Article 73 e of the Charter with respect to that Territory;
2. *Requests* the administering Powers concerned to transmit or continue to transmit to the Secretary-General the information prescribed in Article 73 e of the Charter, as well as the fullest possible information on political and constitutional

¹ A/59/71.

Note: Sample resolutions from the UNGA, from 1966 and 2005. Alignments are highlighted in yellow/light shading, while references are highlighted in blue/dark shading.

Organization (e.g., [Pelc 2014](#); [Charlotin 2017](#); [Busch and Pelc 2019](#)), the courts of the European Union (e.g., [Lupu and Voeten 2012](#)), and the International Court of Justice (e.g., [Alschner and Charlotin 2018](#)). Compared to international courts, though, references in international policymaking organizations like the UN are somewhat distinct. While references and citations may both serve to enhance the legitimacy of the document, illustrating its relationship to previously adopted texts, references in international policy documents do not invoke the legal weight of precedent, as do citations in international courts. Nevertheless, even in non-binding contexts, precedent creates informal authority ([Pelc 2014](#), 547).

Second, I identify the topic of each resolution in the database. Unfortunately, the UN does not provide consistent content labels for resolutions across time. As a result, I fit a structural topic model [Roberts et al. \(2014\)](#) to the combined resolution corpus to summarize the broad themes present in the dataset.

Finally, I identified instances of *textual alignment* in the corpus. Text alignment provides a quantitative measure of how similar two resolutions are to each other (e.g., [Wilkerson, Smith, and Stramp 2015](#); [Linder et al. 2020](#)). In this procedure, I can control for “boilerplate” text such that alignment scores reflect only substantive similarity between texts. [Figure 1](#) highlights aligned text in yellow. Alignment scores by each chamber can be seen in [Table 1](#), and topic-level alignment scores are in the Appendix, which also includes additional descriptive details about references and topics.

Descriptive patterns

Utilizing all three of the document-level features, [Figure 2](#) shows the rate of referencing and alignment grouped by the topic area of the more recent resolution. Rates of referencing vary substantially by topic area. On security-related topics—including matters such as ‘Occupation,’ ‘Conflict Africa1,’ ‘Israel,’ ‘Peacekeeping,’ and post-conflict ‘Elections’—, I observe higher rates of referencing. Procedural matters such as ‘Courts,’ ‘Membership,’ ‘Tribunals,’ and ‘Procedure,’ tend to be lowest in references. This finding hints at the utility of the reference measure: patterns in legislative practice may be obscured by examination of counts of resolutions alone, which are passed with roughly

constant frequency across different issue areas over time.

The topic labels also allow us to characterize UN agenda dynamics more broadly. For each chamber and each topic, I counted the number of resolutions from that chamber whose highest probability topic label matched the given topic. I then calculated a measure of dispersion to assess how broad or narrow the agendas of each chamber are.³ For the UNGA, these results indicate that resolutions are almost equally split across all 50 topics. By contrast, UNSC resolutions are dispersed across approximately half as many equiprobable topics. This pattern aligns with the institutional missions of the two chambers, which mandate the UNSC to focus on a narrower set of security-related topics compared with the UNGA’s broader orientation, and suggests that the topic labels are correctly picking up on these different agenda dynamics.

Table 1: Key findings by chamber

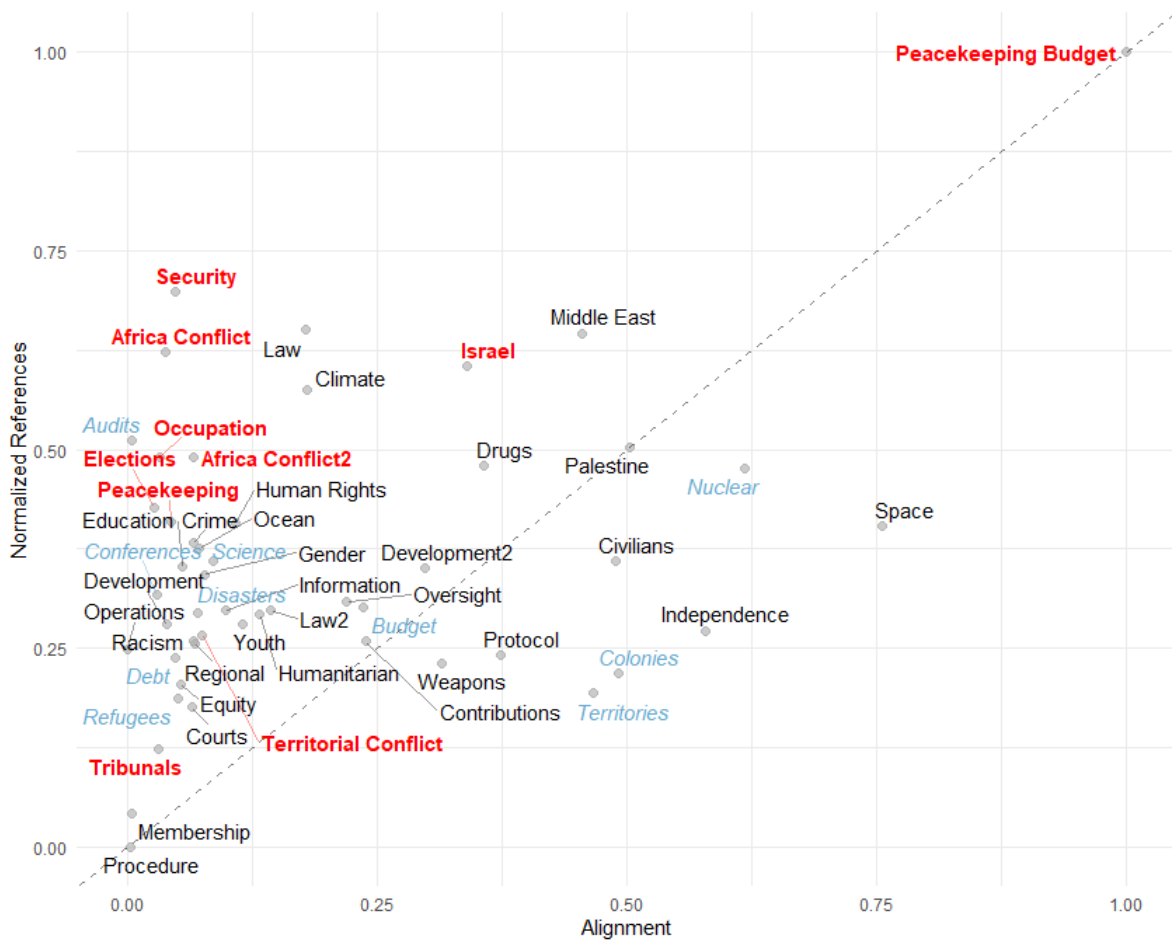
	Number Resolutions	Number references	Alignment (97.5 Percentile)
Overall	17324	132881	—
UNGA	14993	114943	139.61
UNSC	2331	17938	60.57

I also find that the chambers are distinct in their referencing patterns. Security-related topics are generally the topics with the highest rate of referencing. These topics tend to be ‘owned’ by the UNSC, by which I mean that they fall within the institutional remit of the UNSC, and are the topics on which the UNSC produces the majority of resolutions. The UNGA and the UNSC differ not only in the topical remits, but also in many other dimensions such as membership composition, norms, and voting rules. Bearing these differences in mind, I do find that while the UNSC does not employ references more than the UNGA, either in raw counts or at a per-resolution level (Table 1), the UNSC has employed more *references per resolution* consistently since 2001.

I also observe that the UNGA and the UNSC are highly siloed institutions based on their legislative practices, suggesting the development of distinctive norms and patterns

³For details, see Appendix Section 1.

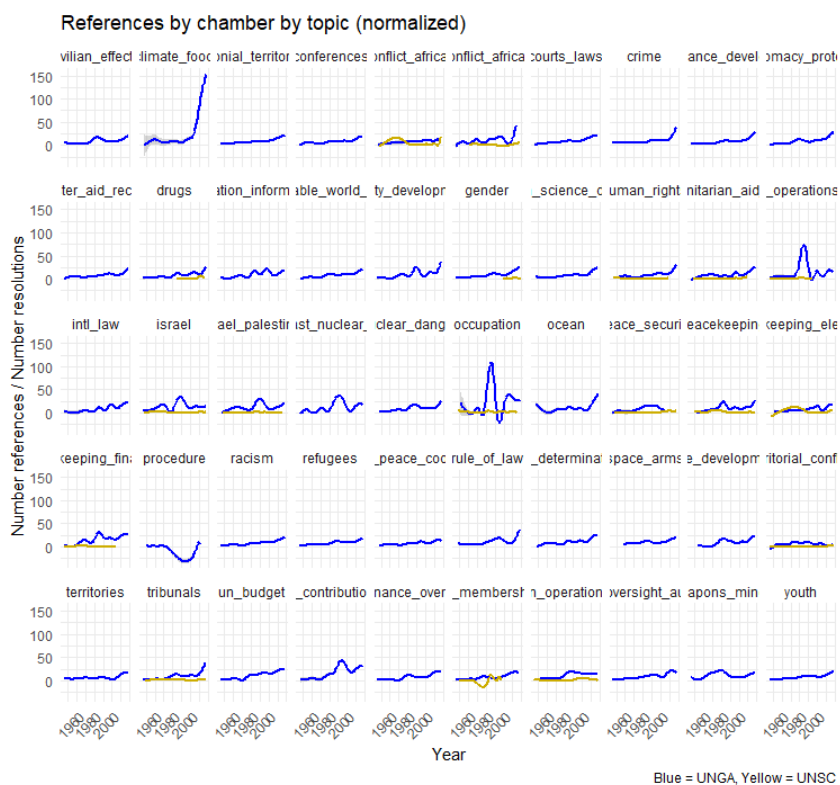
Figure 2: Alignment and references by topic area



Note: Topics indicated in red/**bold** are the ten topics on which the UNSC passes the most resolutions, while those indicated in blue/*italics* are the ten topics on which the UNGA passes the most resolutions. Normalized references and alignment at the 99th percentile are both rescaled to range 0-1.

of behavior across chambers following from their differences in size, rules, and agenda scope. I find that almost all referencing occurs within chamber. I calculate a ratio of in-chamber to out-chamber references, where 1 represents exclusive in-chamber referencing and -1 represents exclusive out-chamber referencing. For the UNGA, the reference ratio is 0.86, and for the UNSC is 0.98. On average, 95% of a resolution’s references are within-chamber. Noting the overall tendency towards within-chamber referencing, there is substantial variation in cross-chamber referencing and alignment across topic areas. For example, on the topic of “israel”, just 70% of the average resolution’s references are within-chamber. While most topics are clearly ‘owned’ by one of the chambers, on some topics, ‘ownership’ is passed back and forth between the UNGA and the UNSC over time (Figure 3).

Figure 3: Chamber-level references on different topics over time



Illustrative example

References and political support for resolutions

Does the negotiating process of resolution writing affect countries' support for the final product? To illustrate a use case of the resolutions corpus, I assess the impact of references and compare this to an important alternative explanation—foreign aid. I contend that to explain state support for UN resolutions, factors such as foreign aid matter, but the qualitative element of a resolution's content must also be taken into account. I contend that referencing can have direct political impacts on a resolution's likelihood of adoption. For example, on a resolution on synthetic drugs proposed in 2023, Mexico's delegate refused to support the draft until the “unacceptable” omission of a reference to a prior resolution on the world drug problem (A/RES/77/238) was resolved, threatening the potential consensus adoption of the text.⁴ More broadly, I suggest that references function as important signals to negotiators, which can operate through a variety of mechanisms. Given that negotiators are constrained by limited time and personnel resources (e.g., [Allee and Elsig 2019](#)), citations are valuable signals in persuading actors to support a resolution ([Busch and Pelc 2019](#)).

For example, references highlight the resolutions that have influenced the contemporary decision-making process and indicate a commitment to a consistent underlying ideology ([Voeten 2010](#); [Charlotin 2017](#), 284). For a state deciding whether to vote in favor of a resolution, these references can demonstrate consistency with their foreign policy in the past or with their beliefs about what types of issues the IO should be working on: if that state supported a similar agreement on the topic in the past, it would be contradictory for them to not support the current text, and the state could open itself to criticism of being a ‘flip-flopper.’ As a result, the addition of new references to a document signals ideological alignment with the older document (and its authors) being invoked. This logic suggests that if a resolution cites resolutions that a country has previously supported, that country is more likely to support the resolution currently under

⁴[UN Meeting](#), 18 December 2023.

consideration. These expectations also hold—although to a lesser magnitude—if the reference is to a prior resolution supported by one of that country’s allies, as allies are likely to share similar ideological preferences over resolutions.

References can also serve as signals of existing consensus, generating support through normative channels. Moving toward consensus is an important goal for diplomatic negotiators in IOs (Novak 2013; Mikulaschek 2021). Even though the votes of the most powerful member states carry additional weight in IOs (e.g., O’Neill 1996), a consensus outcome conveys “broad international acceptance” (Finke 2021, 7). Individual states may seek to avoid being left out of a majority coalition, as this would suggest that they were out of step with the preference of most members (Pouliot 2016). While negotiators—especially those with robust social ties to other negotiators—may already have a sense of whether a consensus outcome is likely (e.g., Arias 2023), the inclusion of references can make this more salient and can be particularly informative for less-networked and less-experienced diplomats. Thus, I expect that resolutions with more citations can also be more effective at attracting new states to vote in favor by suggesting the existence of consensus.

Referencing is not costless and not random, as scholars of international courts have noted (Lupu and Voeten 2012; Lupu and Fowler 2013; Charlotin 2017; Busch and Pelc 2019). Even in the context of the UNGA, where there are no specific legal ramifications of their inclusion, referencing requires research and argumentation, convincing other parties that the inclusion of the reference is justified. This implies that references are not ‘cheap talk’—their inclusion is strategic, and constrained by the effort that must be undertaken to justify their inclusion.

Because my empirical tests rely on observational data, I cannot manipulate these mechanisms to directly adjudicate between the channels by which references influence the decisions of negotiators. However, my evidence provides initial support for the presence of both mechanisms: I show that resolutions obtain additional votes in favor when they include additional references (*consensus-building*) and countries are more likely to support later resolutions that reference earlier resolutions that they or their allies supported

(*consistency*). Further disentangling these mechanisms could pose a fruitful avenue for future research.

Results

To isolate the effects of referencing on political support, I hold constant all other features of the text, focusing on cases where nearly identical resolutions vary *only* in the inclusion of references. For example, in 2010, the UNGA adopted [Resolution 65/219](#) on “The Right to Development.” Two years later, it adopted a nearly identical [text](#), differing only in the included references. Despite the substantive similarity of the texts, the 2012 resolution obtained 21 additional votes in favor and 20 fewer no votes.⁵ Though imperfect, this methodology hones in on the specific impact of references on political support. While external negotiations or other outside factors may have contributed to the increased level of state support, I expect that such negotiations would be unlikely to influence voting through other channels, given that no other textual changes were rendered. Instead, I attribute much of the increased support for the 9 additional citations that A/RES/67/171 contained compared to A/RES/65/219, which related the text to new agreements such as resolutions on non-communicable diseases and sustainable development.⁶ I measure support with voting, and show in the appendix that these results are robust to an alternative measure of support—sponsorship.

For the first test of these expectations, I compare the relationship between references and voting among UNGA resolutions with similar content. Specifically, I collect all pairs of highly aligned resolutions to generate comparison pairs that are substantively as matched as possible.⁷ I then calculate a difference in the *number of references* and

⁵There were no changes in the numbers of absences or abstentions.

⁶A/RES/66/2; A/RES/66/288.

⁷The maximum alignment score used as a similarity cutoff for documents A and B and per-token match score of 2 is $2 * len(A) * len(B)$. For all document pairs, I normalize all documents by this maximum score and retain documents that are above the pre-specified cutoff. I vary this cutoff in Figure 4 for robustness. Because references are included in both the preambulatory and operative clauses of resolutions, I retain

proportion of yes votes among pair members. I then regress the reference difference measure on the voting measure, with fixed effects for the year of each resolution in the dyad, which controls for the number of UN members in a given year, which varies over time as membership is enlarged.

These increases in votes could come from vote-switching (changing votes from nay to yay) or from states that abstained or did not vote. While the former is a more obvious example of preference change, the latter can also be an important strategic decision: abstaining and non-voting allow diplomats to avoid taking a potentially controversial stand in a recorded vote that is highly visible to relevant audiences, especially when the outcome of the vote is uncertain (e.g., [Coggins and Morse 2024](#)). By signaling the existence of a consensus on the issue area, the inclusion of references could potentially mitigate these concerns and induce wavering states to participate in voting.⁸

As shown in Figure 4, the results support my expectations. For document pairs with similarity values of approximately 0.8-0.9—or in other words, resolutions that are highly similar in their substantive content—documents with more references are significantly more likely to receive additional positive votes. Document pairs with similarity scores above 0.9 are rarer, which limits explanatory power. However, coefficient estimates at essentially all similarity cutoffs are positive, and coefficient estimates above 0.95—where I am most able to hold the text of the resolutions in question constant—are positive and substantively significant. In this range, I estimate that adding an additional reference to a document in the modern UN would yield approximately one additional “yes” vote.⁹ Resolutions are not simply supported by the same group of states every year: *more* states vote for them as more references are included, illustrating that references are not merely artifacts of existing support. This result provides suggestive evidence for the consensus-

both in the analysis.

⁸There are certainly cases where absenteeism is simply that, rather than a strategic choice.

⁹I show in the Appendix that these results do not depend on the number of total references in the resolution pairs, are robust when only considering changes from negative votes to support, and hold in estimations with dyad-robust clustered standard errors and year-pair fixed effects.

building mechanism of referencing.

While I have demonstrated the validity of my claim that referencing affects support for resolutions generally, I seek to specifically demonstrate that a country should be expected to be more likely to vote in favor of resolutions that reference resolutions it—or its allies—have previously supported to demonstrate the ideological consistency mechanism of referencing. Therefore, for the second test, I calculate the following statistic:

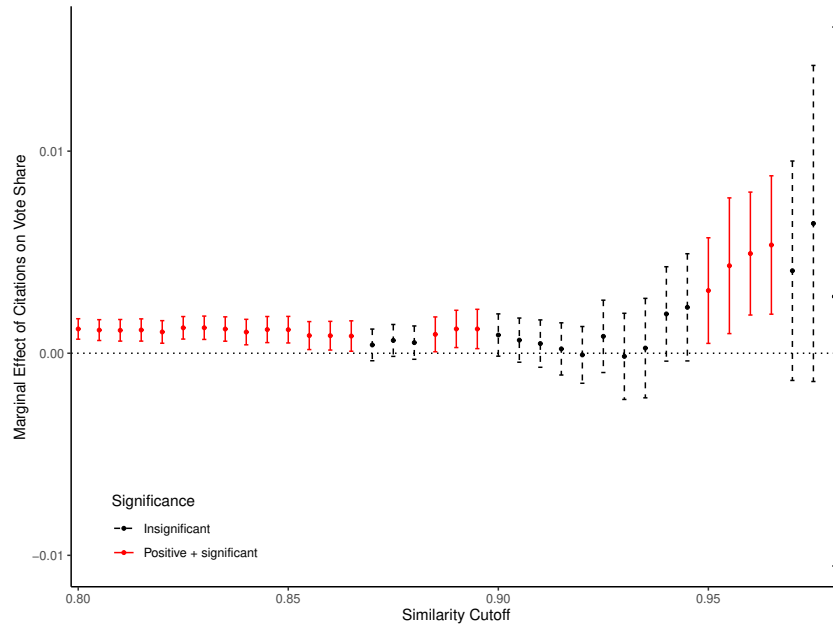
$$S_t = \frac{1}{n_t} \sum_i^{n_t} \frac{N_{(i,t)}(\text{vote}, \text{reference})}{N_{(i,t)}(\text{vote})} - \frac{N_{(i,t)}(\sim \text{vote}, \text{reference})}{N_{(i,t)}(\sim \text{vote})} \quad (1)$$

$$= \frac{1}{n_t} \sum_i^{n_t} S_{(i,t)} \quad (2)$$

$S_{(i,t)}$ represents the average difference in country i 's voting rate in year t for resolutions that reference resolutions that the country previously voted for compared with those that do not. I then average this statistic average across countries and years. This statistic therefore represents the difference in country i 's referencing rate for resolutions that i voted for versus those it did not, averaged across year t . The resolutions need not be substantively similar in this test, or in other words, these results would not simply show countries voting for the same substantive resolutions that they previously supported—this analysis is not restricted to the pairs of substantively similar resolutions examined above. The results align with my expectations: countries are approximately 50-75 percentage points more likely to vote for resolutions that reference resolutions that the country had previously voted for, compared with those that do not (see Figure 5, left panel). I conduct a similar comparison of ally referencing and voting patterns and find that resolutions a country votes for are more likely to reference resolutions favored by a higher proportion of that country's allies compared with those resolutions that a country does not vote for (Figure 5, right panel). This result provides suggestive evidence for the consistency mechanism.

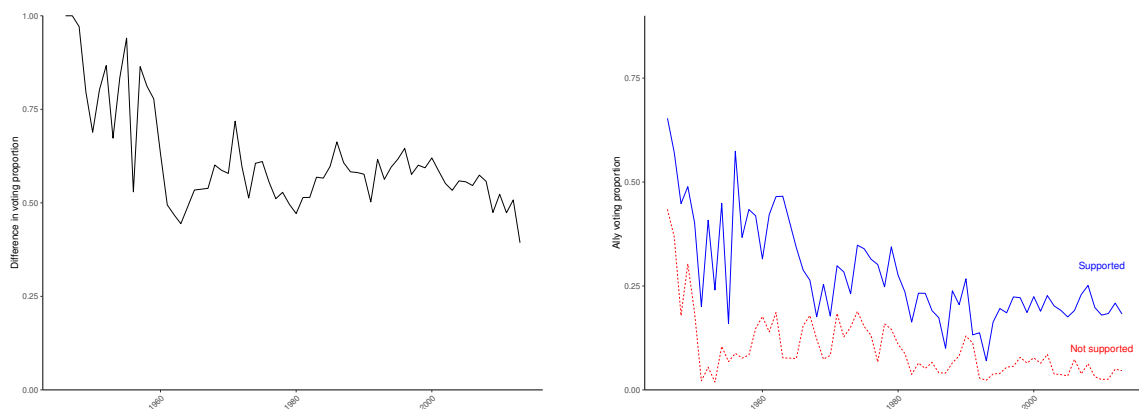
How does the substantive importance of this result compare to other major explanatory features of support for UN resolutions? One prominent alternative explanation for vote choice in the UNGA is aid receipt (e.g., [Carter and Stone 2015](#); [Dreher and Sturm](#)

Figure 4: Increased references increases vote share among similar resolution pairs



Note: OLS linear regression model. The dependent variable is the difference in the proportion of yes votes between pairs of highly aligned resolutions. The key predictor variable is the difference in the number of references for each resolution. Each point represents a model fit with all pairs with similarity scores above a given cutoff. Fixed effects are included for the year of each resolution in the pair.

Figure 5: Political dynamics of referencing and resolution support



Note: Difference in voting proportions among resolutions where the state is referenced vs. not-referenced (left panel) and differences in ally voting proportions, among resolutions that the state votes for ('supported') vs. does not vote for ('non-supported') (right panel)

2012).¹⁰ Plausibly, smaller states may sell their votes in exchange for material rewards from larger states, expressed through foreign aid flows. Under this scenario, I would expect states to vote in alignment with large donors. To test this possibility, I focus on the case of US foreign aid [Dreher, Nunnenkamp, and Thiele \(2008\)](#). In particular, I focus on resolutions on which the US voted *yes*, and the dependent variable is the percentage of resolutions on which a given country voted yes in a given year. This comparison is equivalent to the percentage of cases in which a given country voted in the same way as the US in a given year, building on the approach of [Dreher, Nunnenkamp, and Thiele \(2008\)](#). The key predictor variable is the proportion of resolutions in the same year that reference another resolution (from any prior year) on which a given country voted yes. This variable captures the extent to which the relevant set of resolutions references other resolutions that the country under consideration has previously supported. The key alternative variable is the amount of foreign aid provided by the US to a given country in a given year. I employ an OLS model with country- and year-fixed effects included to control for unobserved time- and country-constant factors.¹¹

As shown in [Table 2](#), both explanations are supported. However, the association between references and vote choice is particularly potent. In a year in which 100% of the resolutions under consideration referenced a resolution on which a country had previously voted yes, I would predict that a country would vote in the affirmative on *all* of those resolutions, even if that country received no foreign aid from the US. This finding suggests that while power does matter in UN politics, it does not determine outcomes. While only large, wealthy states can use foreign aid as a source of leverage in obtaining support for their favored resolutions, any state regardless of size can pursue a strategic referencing strategy. Though this is far from an exhaustive test of alternative explanations for state

¹⁰Other sources of political influence, including formal alliances, military aid, regional, and developmental groups are also found to be predictors of voting similarity (e.g., [Voeten 2000](#)); I limit the scope to foreign aid as one conventional explanation for resolution support.

¹¹In the appendix, I test an alternative estimation strategy predicting votes at the resolution level and include all votes; the results align with my main findings and expectations.

Table 2: Aid and vote comparison

	<i>Dependent variable:</i>
	yes
Reference Proportion	1.000* (0.010)
Aid	0.00003* (0.00001)
Constant	-0.003 (0.020)
Observations	7,612
R ²	0.761
Adjusted R ²	0.753
Residual Std. Error	0.110 (df = 7381)
F Statistic	102.032*** (df = 230; 7381)
<i>Note:</i>	*p<0.05

support of UN resolutions, it does illustrate that the inclusion of references is still a meaningful predictor of resolution support.

Conclusion

This novel data contribution of resolution texts and features in the UN offer insights that simple resolution counts cannot show. To illustrate an application of the data, I developed and tested a theoretical argument about the strategic use of references to achieve political support for UN resolutions. I suggest that references signal the ideological consistency of the resolution under question with the state's prior foreign policy, and signal the existence of consensus amongst negotiations. Supporting these expectations, I showed that the inclusion of references in resolutions corresponds to increased levels of political support, even when the text of the resolution is held constant. Further, I demonstrated that countries are specifically more likely to support resolutions that reference resolutions previously endorsed by themselves and their allies. I also demonstrated that while foreign aid is related to voting outcomes, even controlling for this measure, the inclusion

of references matters to a large degree in explaining vote choice.

By applying a machine learning approach to an extensive body of international law, researchers can examine macro-level trends in legislative practice unexplored by previous work. Future work can probe a variety of questions using this data, for example, assessing whether references to resolutions sponsored by a country's neighbors or former colonial ties increases its likelihood of supporting a resolution; examining the relationships between power, geographical proximity, and patterns of drafting strategies; and understanding the relationships between different drafting strategies—e.g. references, delegation, and dispute settlement mechanisms. These data could also shed light on other political outcomes including compliance, shaming, conflict resolution, and funding allocations.

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