You Had Me at Citation: The Political Dynamics of Citation in United Nations Resolutions

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Abstract

We introduce a new dataset of all United Nations (UN) resolutions passed from 1946-2018, as well as machine-learning based measures of their citations, textual alignment, and topics. We use this dataset to understand why policymakers employ citations in the drafting of legal documents, and how the inclusion of these citations affect political outcomes. We draw on theories of international lawmaking to argue that citation, by signaling ideological consistency with a states' foreign policy goals, serves as a strategy to obtain support for resolutions. We find that citation does increase political support for resolutions, and find that even accounting for foreign aid flows, citation dynamics are an important predictor of state support for resolutions.

Introduction

Why do negotiators in political institutions employ citations when drafting legal texts? Previous scholarship has examined the impact of citations in a variety of judicial settings (e.g. Voeten 2010; Charlotin 2017; Fowler et al. 2007). Yet, multilateral legislative institutions are a fundamentally different context. Unlike international judges, diplomatic negotiators must cultivate direct political support—i.e., sponsorship and votes—for their proposals. What strategic logic can explain a negotiator's choice to selectively invoke previous texts, and why does the adoption of such strategies vary across different institutions and topic areas? Does the inclusion of citations matter for political outcomes? While the relationship between external political considerations—such as foreign aid—and support for multilateral resolutions has been extensively studied (e.g. Dreher, Nunnenkamp, and Thiele 2008; Carter and Stone 2015), we know much less about the relationship between the *content* of resolutions and their subsequent outcomes.

To shed light onto the dynamics of citation in multilateral legislative settings, we 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. From these resultion texts, we extract 132,881 citations to UN resolutions, construct measures of textual similarity between resolutions, and identify resolutions by topic areas. While previous studies of citation practices have focused on specific topical and institutional settings (e.g. Lupu and Voeten 2012; Charlotin 2017; Alschner and Charlotin 2018), our dataset extends these insights by allowing topical and institutional features to vary. 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 and expand the temporal and topical frontiers of previous work. Our data contribution will enable future scholars to address a variety of questions about legislative practices in international organizations (IOs) and intervene into 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 in designing international law (e.g.

Rosendorff and Milner 2001).

Our data collection focuses on the the UN, which we contend is a valuable institution to examine for several reasons, all of which facilitate robust empirical tests of important theoretical questions in international relations and international law. First, the UN is a robust data source, documenting resolutions over the course of seventy-five years, allowing for fine-grained empirical analysis of the corpus. Second, the UN is the most representative of any IO, with the longest serving membership. States engage in repeated interaction year after year in the same institutional environment, which creats opportunities for the analysis of changes in legislative practices and protocols over time.

Third, 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 General Assembly do not constitute hard law, they are substantively important. UNGA resolutions recognize international norms, call for the development of legally binding treaties, allocate development aid, and set institutional priorities across a variety of topics. States, therefore, have substantial incentives to invest time and political capital in negotiating both types of resolutions. Fourth, and most importantly, the UN is a multi-issue forum. While previous work on legislative drafting strategies has extensively examined their development in particular issue areas, the UN provides an opportunity to examine variation in such legislative practices across issue areas.

Illustrating the utility of the resolution dataset, we argue and show that citations are a political tool used by negotiators in the UN to develop support for resolution proposals. For example, in December 2007, the UNGA adopted Resolution 62/215 on "Oceans and the law of the sea." The next year, it adopted a nearly identical resolution. Despite the substantive similarity of the texts, the 2008 resolution obtained 9 additional votes in favor. Another pair of highly similar resolutions on "The total elimination of racism, racial discrimination, xenophobia, and related intolerance" were adopted in 2010

and 2011, and again, the later resolution obtained 34 additional yes votes—despite nearly no substantive changes to the language of the text. What accounts for these changes in political support for substantively identical texts? On what grounds could states change their committed foreign policy position on the resolution?

We argue that citation dynamics can help to understand how these substantively identical resolutions obtained very different 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. Including citations to resolutions previously supported by a country or its allies can signal ideological consistency with their preferred foreign policies and increases the likelihood that a state will support the measure currently under consideration. In both examples highlighted above, the number of citations from the earlier text to the later text increased. More generally, we 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 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 citation—can gain support for policies even after accounting for external political considerations like foreign aid payments.

Examining the dynamics of citation practices and their political implications reveals important insights into the politics of multilateral diplomacy. By leveraging within-institutional differences, the UN resolutions data will allow researchers to use a textual lens to draw additional inferences about the dynamics of international policymaking, and on the relationship between these legislative practices and political decision-making. These findings are substantively relevant for scholarship in international law, international cooperation, and legal design generally. These findings can shed light on variation in drafting strategies across institutional contexts, and help to understand how and why different institutions develop—or fail to develop—robust legal canons.

Citation in International Law

The drafting strategies chosen by state representatives in IOs result in extensive variation in the content and form of international law. The norms and practices of legislative drafting can encourage negotiators to write precise and explicit texts, or to favor more general language (Abbott and Snidal 1998). One type of drafting strategy employed in international lawmaking has received substantial attention: *citation*. Citations—explicit invocations of previous decisions or legal texts—are well-studied from a *legal* standpoint, but the *political* rationale for such invocations to earlier texts is less understood. Citation networks reveal institutional practices in the World Trade Organization (Charlotin 2017; Kucik, Peritz, and Puig 2020), the courts of the European Union (Lupu and Voeten 2012; Derlén and Lindholm 2015; Larsson et al. 2017), the International Court of Justice (Alschner and Charlotin 2018) and in the US domestic context (Fowler et al. 2007).

Scholars point to legitimacy, consistency, legal ideology, and influence as explanations for the inclusion of citations by legal bodies (e.g. Fowler et al. 2007; Voeten 2010; Lupu and Voeten 2012; Charlotin 2017). Generally, jurisits include citations with the aim of increasing the effectiveness of the ruling. But how well do these explanations apply to the citation practices of multilateral fora, where the drafters of legal texts are not judges, but representatives of states? The dynamics of judicial institutions are quite different of those of multilateral policymaking organizations, where contestation over the inclusion of citation occurs between state negotiators, not judicial experts. While some of the same considerations—such as legitimacy—may hold in both contexts, diplomatic negotiators must also consider how to obtain direct political support for their proposals in the form of sponsorships and votes, which is not a hurdle that international jurists must clear. We theorize that in multilateral legislative contexts—unlike in courts or tribunals—we must take additional steps to account for political dynamics between negotiating actors.

To be clear, we do not contend that citation is the only drafting strategy available to negotiators. References to broader international principles, external organizations, recycling of previously adopted texts, and inclusion of escape clauses, flexibility clauses, or dispute resolution mechanisms can also affect the level of political support for a text.

However, citation is a readily available and impactful tool which can be used across a wide variety of contexts, and one which has received substantial attention in studies on the development of law. Citation is also substantively important to understand in the development of a framework of international law. Furthermore, citations follow a unique logic compared to previously studied features of legal design. For example, while escape clauses are included to increase compliance with trade agreements (Rosendorff and Milner 2001) and delegation of dispute settlement in BITs is included to appease domestic interest groups (Allee and Peinhardt 2010), neither of these dynamics would be likely to explain why citations are included in UN resolutions. Thus, as an important practical tool, and because of the need for theoretical logic to explain their inclusion, citations are a sensible drafting strategy on which to focus in analyzing how drafting strategies more broadly affect political support for resolutions.

Resolution Politics in the United Nations

How do states form their preferences on resolutions, and how are they influenced by the political processes at work in multilateral negotiations? Does the negotiating process of resolution writing affect countries' support for the final product? Conventional explanations of state support for UN resolutions have focused on external political considerations—in particular, foreign aid—rather than the content of the resolution itself.[1]

Conventional Explanations of Political Support

Foreign aid has been posited as a mechanism of influence on voting for more than fifty years.[2] Recipient states are found to vote more similarly to donor states when

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[1]Other sources of political influence, including formal alliances, military aid, regional, and developmental groups are also found to be predictors of voting similarity (Kim and Russett 1996; Voeten 2000), but given that foreign aid has been most widely examined by the literature, we limit our scope to this conventional explanation for strategies to gain resolution support.

[2]For a detailed summary of the literature, see Carter and Stone (2015); Dreher and Sturm (2012).

they receive bilateral foreign aid payments (Carter and Stone 2015), including on important matters (Wang 1999) and when the sources of aid are disaggregated (Dreher, Nunnenkamp, and Thiele 2008). Powerful states can also use their influence in organizations like the International Monetary Fund and the World Bank to direct benefits to states that vote as they desire (Dreher, Sturm, and Vreeland 2009; Dreher and Sturm 2012). These effects are observed on votes in both the General Assembly and in the Security Council.

We contend that to explain state support for UN resolutions, factors previously identified—including foreign aid—matter, but alone are not sufficient. The qualitative element of a resolution's content—in particular, the inclusion of citations—must also be taken into account to predict a states' likelihood of voting for or sponsoring the resolution.

Strategic Use of Citation

In multilateral legislative contexts like the UN, we suggest that citations function as *strategic incentives for political support*. Citations highlight the decisions that have influenced the contemporary decision-making process, and indicate commitment to a consistent underlying ideology (Voeten 2010; Charlotin 2017, 284). For an individual state, these references can demonstrate consistency with their own foreign policy in the past—if that state supported a similar agreement on the topic in the past, it would be sensible for them to support the current text. At the institutional level, the references can show that the matter at hand is within the scope of the institutional mandate, building upon previous institutional works that a state has already supported rather than expanding the scope into new domains. As a result, adding new citations to a document signals ideological alignment with the document (and its authors) being invoked. Given that policymakers—including diplomats—are constrained by limited time and personnel resources (e.g. Panke 2013; Allee and Elsig 2019), citations are a valuable heuristic for signaling this ideological consistency.

States, with an eye towards increasing support for the proposed resolution, include citations strategically. Citation is not costless and not random (Lupu and Voeten 2012; Lupu and Fowler 2013; Charlotin 2017). The inclusion of citation requires research and

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argumentation, and in the case of multilateral fora, convincing other parties that its inclusion is justified. These efforts are costly in terms of time and staffing capacity, which, while a greater concern for states with small UN Mission Staffs (e.g. Panke 2013), are equally true regardless of staff size.

Our theoretical expectations highlight the political implications of citation. Assuming that citations cannot be included in a resolution text without limit, we argue that negotiators strategically include citations to maximize their likelihood of obtaining political support for the text, specifically by highlighting its ideological consistency with a state's foreign policy. This logic suggest that if a resolution cites resolutions that a country has previously supported, that country is more likely to support the resolution currently under consideration. These expectations also hold—although to a lesser magnitude—if the citation is to a prior resolution supported by one of that country's allies. In these situations, the relationship between the country and the sponsor of the cited resolution indicate ideological congruence, and that supporting the resolution in question would further the foreign policy goals of a friendly state.

> H_1: **Countries are more likely to support resolutions that cite resolution(s) previously supported by that country.**
>
> H_2: **Countries are more likely to support resolutions that cite resolution(s) previously supported by that country's ally.**

We argue that citations themselves are drivers of political support for resolutions. In the iterative process of drafting resolution texts, an agreement may be reached among negotiators to include a citation to obtain a vote, or the implications of a citation may be pointed out to relevant parties. To isolate the effects of citation from other potential negotiation tactics, our empirical strategy will hold constant all other features of the text, allowing us to isolate cases where identical resolutions vary *only* in the inclusion of citations.

We measure support with two observable behaviors: sponsorship and voting. For a resolution to pass, a majority of states must vote in support.[3] Thus, there is a clear incentive for countries who seek to pass a measure to obtain additional votes in favor. Voting

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[3]A two-thirds majority is required on 'important questions.' See Rules of Procedure 82-95 for full voting

behaviors in the UN have been examined by decades of international relations scholarship (e.g. Keohane 1967; Kim and Russett 1996; Voeten 2000; Bailey, Strezhnev, and Voeten 2017), yet there is much less systematic analysis of sponsorship of UN resolutions than voting patterns.[4]

As in most legislative contexts, sponsorship and voting decisions in the UN are strategic. These choices require countries to expend effort evaluating resolution content and consequences, and can represent a costly position-taking signal to peer nations (e.g. Charnysh, Lloyd, and Simmons 2015).[5] However, sponsoring and voting for resolutions also allows countries to credit-claim and position themselves as constructive members of the UN, which can be useful when running for elected positions, such as agency heads or rotating seats on the UNSC.

Data and Estimation

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 (e.g. Caraway, Rickard, and Anner 2012), or forces the researcher to simplify their measure to one that can be more objectively and quickly evaluated (e.g. Jo and Namgung 2012). 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 (Alschner 2019). These tools have begun to be deployed in both international law and in domestic contexts (e.g. Allee and Elsig 2019). We apply these methodologies to examine variation in legislative practices on a large scale at the UN.

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rules in the General Assembly, and Article 27 of the Charter for voting rules in the Security Council.

[4] For more on theories of sponsorship behavior, see the Appendix.

[5] See previous sections for a fuller discussion of political incentives for sponsorship.

Data Collection

To study variation in drafting strategies of international agreements, we constructed an original dataset consisting of all UNGA and UNSC resolutions passed since the establishment of the UN. These data are summarized in Table 1. Our data collection work proceeded as follows. First, we scraped all UNGA and UNSC resolutions posted on their respective official websites.[6] 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). Second, since older resolutions are posted as scanned images, we then used optical character recognition (OCR) software to convert each document into a plain-text format.This process yielded a dataset consisting of 14,993 UNGA resolutions and 2,331 UNSC resolutions, spanning the time period from 1946-2018, which significantly extends the time period covered by previous studies (e.g. Finke 2021) and allows for the first comparison of UNGA and UNSC activity.

As shown in Figure 1, resolution formats changed substantially over time, ranging from single-column formats with one document per page, to multi-column formats with multiple documents per page, to multi-column formats with parallel French/English text. To address this challenge, we used a series of period-specific regular expressions to remove extraneous text and isolate the actual resolution from the image on each page.[7]

Feature Extraction

To study patterns of drafting strategies in this dataset, we extracted three types of features from each document. First, we extracted all *citations* to other UNGA and UNSC resolutions from each text.[8] Like other elements of document style, resolution formats and citation patterns changed substantially over the time period covered by our

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[6]See the UNGA and UNSC indices for details. We are only able to observe the final resolution texts—not earlier draft versions.

[7]For example, translation notes, headers and footers, parallel translation text, procedural language, or trailing language from other resolutions or documents.

[8]A small number of citations refer to other UN bodies such as ECOSOC, which we exclude.

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

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

corpus (for example, see Figure 1). As a result, we again used a series of period-specific regular expressions to extract citations from each text. We then cross-referenced this list of extracted citations against a master database of resolutions for each point in time, and eliminated all false positive results. We also removed all self-citations, that is, occasions when the citation refers to the current resolution. This process left us with a database of 114,943 citations from the UNGA, and 17,938 citations from the UNSC.

Second, using a structural topic model (Roberts et al. 2014), we extracted *topic proportion vectors* for each document in our corpus. Unfortunately, the UN does not provide consistent content labels for resolutions across time. As a result, we fit a topic model to the combined resolution corpus to summarize the broad themes present in our dataset.[9] To label the topics produced by our model, we read the top ten highest-probability words and the top twenty documents with the largest proportion of their content assigned to that topic and inductively constructed topic labels. We then extracted the topic label associated with the highest-probability topic for each document, which we used as the primary content label for each document in our corpus. Encouragingly, for 92.5% of citation pairs in our dataset, the topic label of the resolution matched the modal topic label for the resolutions cited by that document. Since these citations were not part of the input data for the topic model we fit, this results suggests that the topic model we estimate is identifying similar topics to those identified by the citations we extract. In the subsequent analysis, we normalize the number of citations in each topic area by the number of resolutions in the topic area to better capture the *rate* of citation within resolutions independent of the number of resolutions adopted.[10]

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[9]After testing several specifications to maximize semantic coherence and exclusivity, as well as manually evaluating the performance of the different models, we select a specification with 50 topics. We employ a spectral initialization and a 10 iteration burn-in period. Prevalence and content of topics are allowed to vary nonlinearly over time, which is critical given that topics on the UN agenda change in prevalence over time (for example, climate change gains in prevalence over time, while colonial conflicts decline).

[10]In the Appendix, we show the number of resolutions, citations, alignment, topic proportion, and age of each topic.

Finally, we identified instances of *textual alignment* in our corpus. Text alignment provides us a quantitative measure of how similar two resolutions are to each other, which will allow us to hold this constant when systematically examining the effects of citations. To identify instances of text alignment, we broadly follow the strategy employed by Linder et al. (2020). First, using the topic proportion vectors we extracted previously, we calculated pairwise Hellinger similarity values between the topic proportion vectors for each unique pair of documents. For each document, we identified the documents with the top 500 similarity values, and extracted maximally-aligned sequences of text— and corresponding alignment scores—using the Smith-Waterman alignment (SWAlign) algorithm.[11] SWAlign is a sequence alignment algorithm that allows users to identify sequences of shared elements in an ordered list, with user-defined tolerances for gaps or mismatches.[12] Finally, we calculate an adjusted alignment score by weighting each alignment score by the distinctiveness of the tokens contained in each alignment, to down-weight common, "boilerplate" recycling (Wilkerson, Smith, and Stramp 2015). Alignment scores by each chamber can be seen in Table 1, and topic level alignment scores are in the Appendix, which also includes descriptive details about citation patterns across topics and chambers, including trends over time.

Table 1: Key findings by chamber

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

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[11]SWAlign differs from standard plagiarism detection approaches in two respects. First, SWAlign is more scalable than standard plagiarism detection approaches, which is important for larger corpora. Second, due to the scoring mechanism used by the algorithm, SWAlign allows for adaptively-sized gaps and editing differences between texts.

[12]Specifically, we find the optimal local alignment for each document, with alignment parameter set to 2 and mismatch/gap parameters set to -1.

Citation, Sponsorship, and Voting

Descriptive Evidence

As discussed, sponsorship and voting decisions in the UN are strategic, involving both costs and benefits. Across our dataset, the average country sponsors 20% of the resolutions in a given year, which suggests that countries are indeed selective with their sponsorship choices.[13] Noting these incentives and constraints, we hypothesized that countries should be more likely to support resolutions that cite resolutions previously supported by that country (Hypothesis 1), and that a similar relationship should hold for resolutions that cite resolutions previously sponsored by that country's ally (Hypothesis 2). We proposed to examine support with two behavioral measures: sponsorship and voting. Here, we focus on voting practices; our analysis of sponsorship patterns—the results of which are in line with our hypotheses—can be found in the Appendix.

To test our proposed mechanisms, we compare the relationship between citation and voting among UNGA resolutions with similar content. This approach allows us to hold the institutional context and language of the resolution constant while we vary the number of citations included in the text. Specifically, we first collect all pairs of resolutions with Smith-Waterman scores above a pre-specified cutoff.[14] For all such pairs, we then calculate a difference in the *number of citations* and *proportion of yes votes* among pair members. We then regress our citation difference measure on our voting measure, with fixed effects for the year of each resolution in the dataset. This design allows us to measure the relationship between citation and voting while keeping the text of the resolutions approximately constant.

As shown in Figure 3, our results support our expectations. For document pairs

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[13]Sponsorship data are obtained through the UNGA Digital Library and cover the period from 2000 onwards. See the Appendix.

[14]The maximum Smith-Waterman alignment score for documents A and B and per-token match score of 2 is $2 * len(A) * len(B)$. For all document pairs, we normalize all documents by this maximum score, and retain documents that are above the pre-specified cutoff. We vary this cutoff in Figure 3 for robustness.

with similarity values of approximately 0.8-0.9, documents with more citations 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 we are most able to hold the text of the resolutions in question constant - are positive and substantively significant. In this range, we estimate that adding an additional citation to a document in the modern UN would yield approximately one additional "yes" vote.[15]

While we have demonstrated the validity of our claim that citation affects support for resolutions generally—holding the text of the resolution roughly constant—we seek to specifically demonstrate that this relationship is driven by the political dynamics we lay out in Hypothesis 1 and Hypothesis 2, namely, that a country should be expected to be more likely to vote in favor of resolutions that cite resolutions it—or its allies—have previously supported. We calculate the following statistic:

$$S_t = \frac{1}{n_t} \sum_{i}^{n_t} \frac{N_{(i,t)}(vote, cite)}{N_{(i,t)}(vote)} - \frac{N_{(i,t)}(\sim vote, cite)}{N_{(i,t)}(\sim vote)} \tag{1}$$

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

$S_{(i,t)}$ represents the average difference in country i's voting rate in year t for resolutions that cite resolutions that country previously voted for compared with those that do not. We then average this statistic average across countries and years. This statistic therefore represents the difference in country i's citation rate for resolutions that i voted for versus those it did not, averaged across year t. Our results align with our hypothesis: countries are approximately 50-75 percentage points more likely to vote for resolutions that cite resolutions that country had previously voted for, compared with those that do not (see Figure 2, left panel).

We conduct a similar comparison of ally citation and voting patterns. Specifically,

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[15]We show in the Appendix that these results do not depend on the number of total citations in the resolution pairs.

we calculate:

$$A_t = \frac{1}{|S_{(i,t)}|} \sum_{j \in S_{(i,t)}} (ally\%)_{(i,j)} \tag{3}$$

Where $S_{(i,t)}$ is the set of resolutions voted for by country i in year t, and $(ally\%)_{(i,j)}$ is the average yes-vote percentage for i's allies in resolutions cited by resolution j. A_t therefore represents the average proportion of a country's allies that voted for resolutions cited in year t. We calculate the corresponding statistic $\sim A_t$. Once again, we find support for our theoretical predictions: in Figure 2 (right panel) we show that resolutions a country votes for ('supported') are more likely to cite resolutions favored by a higher proportion of that country's allies compared with those resolutions that a country does not vote for ('not supported').

Aid as an Alternative Explanation

As we discussed previously, one prominent alternative explanation for vote choice in the UNGA is aid receipt. Plausibly, smaller states may sell their votes in exchange for material rewards from larger states, expressed through foreign aid flows. Under this scenario, we would expect states to vote in alignment with large donors. By contrast, we would expect citations and resolution content to have a limited relationship with vote choice, since we should not expect states pursue a coherent, consistent foreign policy or to pay attention to the resolutions cited in a resolution text. We leverage a regression framework to test this alternative explanation against our proposed theory that the citation practices increase a state's likelihood of supporting a resolution.

To test this possibility, we focus on the case of US foreign aid.[16] In particular, we focus on resolutions on which the US voted *yes*. Though restrictive, this choice focuses our attention on resolutions on which the US expressed a clear, affirmative position, which provides a stronger test of the alternative scenario we posit.

Our dependent variable in this comparison is the percentage of resolutions on which

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[16]This choice mirrors the substantive focus of the foreign aid literature, which has found that only US foreign aid—not other G7 countries—influenced voting behavior (Dreher, Nunnenkamp, and Thiele 2008).

Figure 2: Political dynamics of citation and resolution support
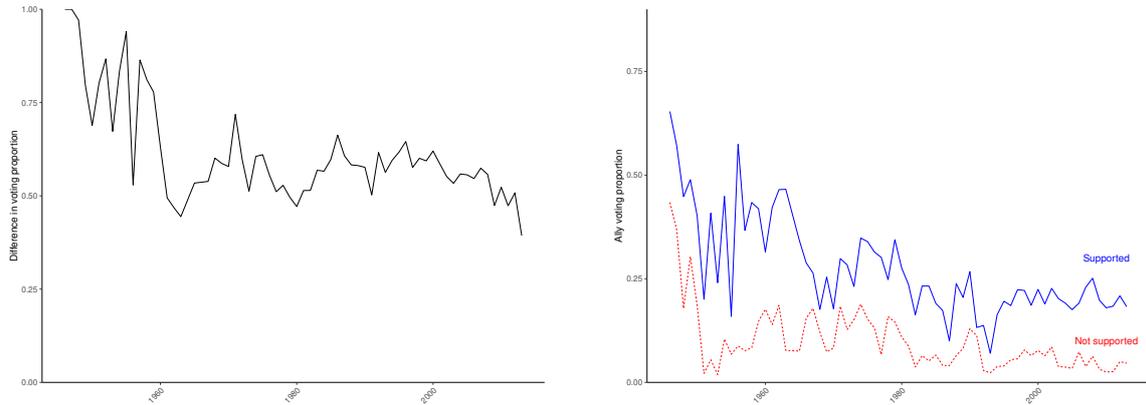
Note: Difference in voting proportions among resolutions where the state is cited vs. not-cited (left panel) and differences in ally voting proportions, among resolutions that the state votes for ('supported') vs. does not vote for ('non-supported') (right panel)

Figure 3: Increased citations increases vote share among similar resolution pairs
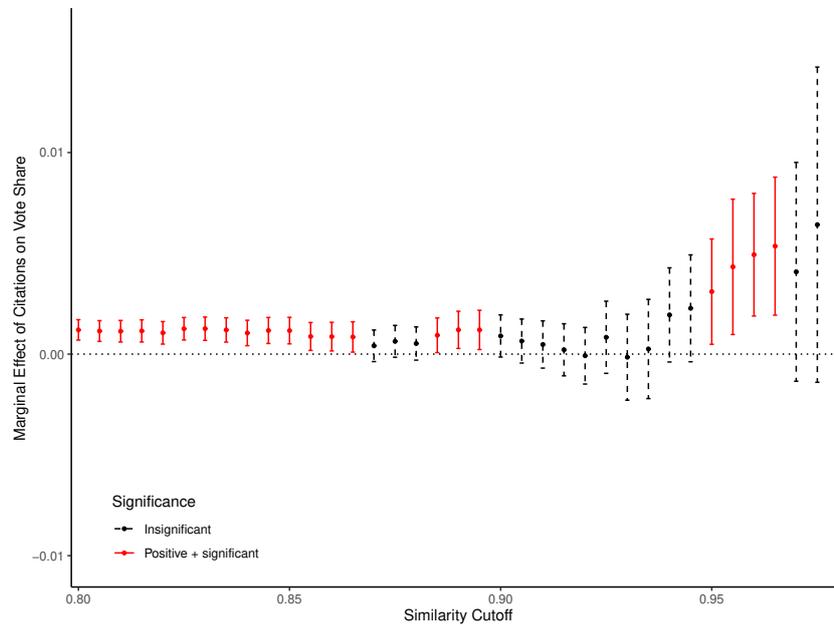
Note: OLS linear regression model. The dependent variable is the difference in proportion of yes votes between pairs of highly-aligned resolutions. The key predictor variable is the difference in the number of citations for each resolution. Each point represents a model fit with all pairs with similarity scores above a given cutoff. Fixed effects included for the year of each resolution in the pair.

a given country voted yes in a given year. Since we restrict our attention to the set of resolutions on which the US voted *yes*, this comparison is equivalent the percentage of cases on which a given country voted in the same way as the United States in a given year. Our key predictor variable is the proportion of resolutions in the same year that cite 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 cite other resolutions that the country under consideration has previously supported. Our key alternative variable is the amount of foreign aid provided by the US to a given country in a given year. To model the relationship between these variables, we employ an OLS linear model, with country- and year-fixed effects included to control for unobserved time- and country-constant factors.

Table 2: Aid and Vote Comparison

	Dependent variable:
	yes
Citation 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)
Note:	*p<0.05

As shown in Table 2, both explanations are supported. However, the association between citations and vote choice is particularly potent. In a year in which 100% of the resolutions under consideration cited a resolution on which a country had previously voted yes, we 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 United States. As a

result, though both aid and citations likely affect vote choice, alignment with resolutions that a country previously supported appears to be a particularly important determinant of vote choice in the UNGA. This finding suggests that while power does matter in UN politics, it does not determine outcomes. While only large, wealthy states have the capacity to use foreign aid as a source of leverage in obtaining support for their favored resolutions, any state regardless of size has the capacity to pursue a strategic citation strategy. While this is far from an exhaustive test of alternative explanations for state support of UN resolutions, it does illustrate that even when considering the most prominent alternative found in existing literature—US foreign aid—the inclusion of citations is still a meaningful predictor of resolution support.

Conclusion

Our novel data contribution of resolution citations and alignments in the UN offer insights that simple resolution counts cannot show. 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 citations 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. citation, delegation, and dispute settlement mechanisms. These data could also shed light on other political outcomes including compliance, conflict resolution, and funding allocations.

To illustrate an application of the data, we develop and test a theoretical argument about the strategic use of citation to achieve political support for UN resolutions. We show that the inclusion of citations in resolutions corresponds to increased levels of political support in terms of sponsorship and votes in favor, even when the text of the resolution is held constant. Further, we demonstrate and that countries are specifically more likely to support resolutions that cite resolutions previously endorsed by themselves

and their allies. Finally, we compare our theoretical logic to the conventional explanation that foreign aid flows shape UN voting behaviors, demonstrating that while foreign aid is related to voting outcomes, even controlling for this measure, the inclusion of citations matters to a large degree in explaining vote choice. We show that legal strategies matter in the success of resolutions, even compared to power-based strategies like foreign aid payouts. If states can do even slightly as well by using a legal strategy than a power-based strategy, this implies that there is much more room for equity and skill in shaping political outcomes in the UN than previous work would suggest.

References

Abbott, Kenneth W, and Duncan Snidal. 1998. "Why States Act Through Formal International Organizations." *Journal of Conflict Resolution* 42(1): 3–32.

Allee, Todd, and Clint Peinhardt. 2010. "Delegating Differences: Bilateral Investment Treaties and Bargaining over Dispute Resolution Provisions." *International Studies Quarterly* 54(1): 1–26.

Allee, Todd, and Manfred Elsig. 2019. "Are the Contents of International Treaties Copied and Pasted? Evidence from Preferential Trade Agreements." *International Studies Quarterly* 63(3): 603–613.

Alschner, Wolfgang. 2019. "The Computational Analysis of International Law." In *Research Methods in International Law: A Handbook*. Northampton, Massachusetts: Edward Elgar Publishing.

Alschner, Wolfgang, and Damien Charlotin. 2018. "The Growing Complexity of the International Court of Justice's Self-Citation network." *European Journal of International Law* 29(1): 83–112.

Bailey, Michael A, Anton Strezhnev, and Erik Voeten. 2017. "Estimating Dynamic State Preferences from United Nations Voting Data." *Journal of Conflict Resolution* 61(2): 430–456.

Caraway, Teri L, Stephanie J Rickard, and Mark S Anner. 2012. "International Negotiations and Domestic Politics: The Case of IMF Labor Market Conditionality." *International Organization*: Forthcoming.

Carter, David B, and Randall W Stone. 2015. "Democracy and Multilateralism: The Case of Vote Buying in the UN General Assembly." *International Organization* 69(1): 1–33.

Charlotin, Damien. 2017. "The Place of Investment Awards and WTO Decisions in International Law: A Citation Analysis." *Journal of International Economic Law* 20(2): 279–299.

Charnysh, Volha, Paulette Lloyd, and Beth A Simmons. 2015. "Frames and consensus formation in international relations: The case of trafficking in persons." *European Journal of International Relations* 21(42): 323–351.

Derlén, Mattias, and Johan Lindholm. 2015. "Characteristics of Precedent: the Case Caw of the European Court of Justice in Three Dimensions." *German Law Journal* 16(5): 1073–1098.

Dreher, Axel, and Jan-Egbert Sturm. 2012. "Do the IMF and the World Bank influence voting in the UN General Assembly?" *Public Choice* 151(1): 363–397.

Dreher, Axel, Jan-Egbert Sturm, and James Raymond Vreeland. 2009. "Global horse trading: IMF loans for votes in the United Nations Security Council." *European Economic Review* 53(7): 742–757.

Dreher, Axel, Peter Nunnenkamp, and Rainer Thiele. 2008. "Does US aid buy UN general assembly votes? A disaggregated analysis." *Public Choice* 136(1): 139–164.

Finke, Daniel. 2021. "Regime type and co-sponsorship in the UN General Assembly." *International Interactions* 47(3): 559–578.

Fowler, James H, Timothy R Johnson, James F Spriggs, Sangick Jeon, and Paul J Wahlbeck. 2007. "Network Analysis and the Law: Measuring the Legal Importance of Precedents at the US Supreme Court." *Political Analysis* 15: 324–346.

Jo, Hyeran, and Hyun Namgung. 2012. "Dispute Settlement Mechanisms in Preferential Trade Agreements: Democracy, Boilerplates, and the Multilateral Trade Regime." *Journal of Conflict Resolution* 56(6): 1041–1068.

Johns, Leslie. 2015. *Strengthening International Courts: The Hidden Costs of Legalization.* University of Michigan Press.

Keohane, Robert O. 1967. "The Study of Political Influence in the General Assembly." *International Organization* 21(2): 221–237.

Kim, Soo Yeon, and Bruce Russett. 1996. "The New Politics of Voting Alignments in the United Nations General Assembly." *International Organization* 50(4): 629–652.

Krasner, Stephen D. 1991. "Global Communications and National Power: Life on the Pareto Frontier." *World Politics* 43(3): 336–366.

Kucik, Jeffrey, Lauren Peritz, and Sergio Puig. 2020. "Legalization and Compliance: How Judicial Activity Undercuts the Global Trade Regime." *British Journal of Political Science*: Forthcoming.

Larsson, Olof, Daniel Naurin, Mattias Derlén, and Johan Lindholm. 2017. "Speaking Law to Power: The Strategic Use of Precedent of the Court of Justice of the European Union." *Comparative Political Studies* 50(7): 879–907.

Linder, Fridolin, Bruce Desmarais, Matthew Burgess, and Eugenia Giraudy. 2020. "Text as Policy: Measuring Policy Similarity Through Bill Text Reuse." *Policy Studies Journal* 48(2): 546–574.

Lupu, Yonatan, and Erik Voeten. 2012. "Precedent in International Courts: A Network Analysis of Case Citations by the European Court of Human Rights." *British Journal of Political Science* 42(2): 413–439.

Lupu, Yonatan, and James H Fowler. 2013. "Strategic Citations to Precedent on the U.S. Supreme Court." *The Journal of Legal Studies* 42(1): 151–186.

Panke, Diana. 2013. *Unequal Actors in Equalising Institutions: Negotiations in the United Nations General Assembly.* Springer.

Roberts, Margaret E, Brandon M Stewart, Dustin Tingley et al. 2014. "stm: R Package for Structural Topic Models." *Journal of Statistical Software* 10(2): 1–40.

Rosendorff, B Peter, and Helen V Milner. 2001. "The Optimal Design of International Trade Institutions: Uncertainty and Escape." *International Organization* 55(4): 829–857.

Smith, Courtney B. 2006. *Politics and Process at the United Nations: the Global Dance.* Lynne Rienner Boulder, CO.

Voeten, Erik. 2000. "Clashes in the Assembly." *International Organization* 54(2): 185–215.

Voeten, Erik. 2010. "Borrowing and Nonborrowing Among International Courts." *The Journal of Legal Studies* 39(2): 547–576.

von Einsiedel, Sebastian, David M Malone, and Bruno Stagno Ugarte. 2015. *The UN Security Council in the 21st Century.* Lynne Rienner.

Wang, Te-Yu. 1999. "U.S. Foreign Aid and UN Voting: An Analysis of Important Issues." *International Studies Quarterly* 43(1): 199–210.

Wilkerson, John, David Smith, and Nicholas Stramp. 2015. "Tracing the Flow of Policy Ideas in Legislatures: a Text Reuse Approach." *American Journal of Political Science* 59(4): 943–956.