

Everything New is Old Again: Textual Recycling in UN Resolutions

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Abstract

Why do negotiators recycle previous texts in the drafting of legal documents in international organizations? We engage with theories of international lawmaking to understand how the unique context of IOs leads to different expectations of textual recycling compared to previously studied contexts, primarily treaty negotiations. We argue that textual recycling is an efficiency-enhancing strategy which negotiators are particularly likely to use when confronted by demanding policy agendas and when addressing low-salience issues. To assess this theory, we deploy a machine learning approach to measure textual recycling across all UN resolutions passed from 1946-2018. In line with our expectations, we find that rates of textual recycling are higher in the UNGA—which has an extensive agenda—than the UNSC—which has a narrower agenda. We further find that recycling is more likely to be used within chambers compared to across chambers, and on lower salience issues than on security matters. These findings suggest that negotiators weigh the benefits of efficiency against the importance of specificity when choosing to recycle texts.

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Introduction

In September of 2018, the United Nations General Assembly (UNGA) adopted [Resolution 73/108](#) on the “Question of American Samoa” with respect to self-determination. Shortly afterwards, it adopted a nearly identical resolution—[Resolution 73/110](#)—on the “Question of the British Virgin Islands.” Despite the substantive differences between the two cases—including their levels of development and their colonial histories—the texts of the two resolutions were practically interchangeable. In the same year, the United Nations Security Council (UNSC) adopted Resolutions [2449 \(2018\)](#) and [2450 \(2018\)](#), both on the topic of violence in Syria. However, unlike the UNGA, the UNSC employed completely new language in each resolution.

Why did delegates in these two bodies adopt such different strategies with respect to recycling previous texts? Existing international relations scholarship has examined patterns in textual recycling in bilateral agreements (e.g. [Allee and Peinhardt 2010](#); [Poulsen 2015](#)), yet we lack a theoretical framework to explain the variation in recycling (or lack of recycling) in multilateral diplomacy, and in particular, how can institutional features help to explain variation in recycling practices? When and why do negotiators choose to selectively recycle language from previous texts in international organizations (IOs)?

We argue that variation in institutional remit and rules can explain variation in drafting strategies. In institutions with wide-ranging policy agendas, negotiators are likely to face resource constraints that make it more difficult to craft bespoke language on every issue area ([Jones and Baumgartner 2005](#); [Panke 2013](#); [Allee and Elsig 2019](#)). Recycling offers efficiency gains at the cost of specificity, and should be adopted more frequently by delegates in IOs with wide-ranging scope and extensive agendas. However, in high-salience cases, specificity may be preferable compared to efficiency, as negotiators take their time to address the minutiae of a particular situation.

In this paper, we apply the theory to the UNGA and UNSC, though our theoretical logic is generalizable to many multilateral policymaking processes. While previous studies of textual recycling have generated important insights in bilateral contexts and multilateral treaties, we extend these insights to a multilateral organizational setting,

where the political dynamics of negotiations are likely to be very different. By focusing on the multi-issue context of the UN and leveraging differences between sub-institutional units, we can illuminate how institutional rules and norms affect textual recycling in multilateral politics.

To test our expectations, we examine all resolutions passed by the UNGA and UNSC from 1946-2018 ([Arias and Shaffer N.d.](#)). We find that the UNGA, where efficiency concerns are primary in confronting a large agenda, employs recycling to a greater degree than the UNSC. Both the UNGA and UNSC are more likely to recycle texts that they themselves produce compared to drawing from their counterpart's canon. Finally, we show that recycling is employed more frequently on low-salience, non-security questions compared to matters that are related to international peace and security. These findings suggest that drafting strategies such as textual recycling are strategically deployed by negotiators as they confront an increasingly complex and demanding legislative agenda in IOs, shaped by the unique institutional rules and practices of their environment.

Examining the dynamics of textual recycling in the UN reveals important insights into the processes of international policymaking. Leveraging within-institutional differences illustrates the importance of institutional rules and norms, agenda dynamics, and topical remit on textual recycling in international lawmaking. These findings have implications for the study of IO design and the development of international law, and the politics of international cooperation more generally. We demonstrate that institutional design—specifically, issue specialization—has downstream impacts on the process of creating legislation and the content of policy outputs.

Recycling in International Law

International law has long been studied as an important influence over state behavior, yet there is substantial variation in the content and form of international law. For example, some international agreements are codified in informal, ad hoc documents and may hold only normative power over states, while others are represented in formalized resolutions or treaties that impose binding obligations ([Abbott and Snidal 1998](#); [Koremenos](#)

2016). In some domains, international agreements extensively reproduce the content from earlier texts, while in other areas, dense networks of legal precedent are developed. Individual negotiating actors employ different strategies—influenced by institutional rules and norms—that create this extensive variation in international law.

One such drafting strategy is *textual recycling*—the use of the same language in a legal document as that employed in earlier legal documents. Examining recycling practices has provided fruitful insight into the development of bodies of law by many institutions. Recycling of text across agreements has been examined in the context of PTAs (Allee and Elsig 2019; Allee, Elsig, and Lugg 2017a; Peacock, Milewicz, and Snidal 2019), economic treaties (Clark and Pratt N.d.), as well as in American law (Wilkerson, Smith, and Stramp 2015; Linder et al. 2020). Within issue areas, the amount of recycling varies. Allee and Elsig (2019), for example, find that within PTAs, rates of text recycling are greater in more established areas such as antidumping, and less in newer areas like environmental protection (Allee and Elsig 2019, 609).

However, because such research has been unable to examine variation in recycling across institutional domains, we have been unable to understand the effects of institutional rules and norms on the development of bodies of law. Furthermore, the dynamics of textual recycling in a multilateral policymaking organization—like the UN—may be distinct from other contexts for several reasons. First, unlike treaty negotiations, which are generally one-shot games, negotiating policy documents in an IO takes place in an iterative structure, where actors engage with each other in multiple rounds within the same institutional context. This allows for the development of norms related to drafting strategies, which may enhance—or diminish—the appropriateness of recycling. Second, the complexity of negotiations in an IO compared to a treaty negotiation can often be greater. The number of negotiating actors and the number of topics to be negotiated over are generally higher in multilateral policy negotiations compared to treaties. Even multilateral treaties are rarely negotiated by the number of state actors that participate in negotiations over UN resolutions, and in the UN case, these actors negotiate over hundreds of different issues in a yearly session. As the number of actors and topics under

consideration increases, the importance of recycling as an efficiency tool increases.

We develop a theory about the influence of institutional remit, rules, and agenda dynamics on the adoption of drafting strategies in IOs—particularly on citation and recycling—and test this theory in a unique institutional context in which we can examine the effects of institutional rules on drafting strategies and policy outputs.

Why Recycle?

Drawing on existing theories (e.g. Poulsen 2015; Allee, Elsig, and Lugg 2017b; Peacock, Milewicz, and Snidal 2019), we suggest that textual recycling principally serves as an efficiency-enhancing strategy for negotiators. However, as we will show, the unique institutional dynamics of multilateral organizations shape our expectations about *when* and *why* such efficiency gains are more or less desirable for negotiators.

Recycling previously negotiated text can facilitate agreements in contested areas and create efficiencies for resource-limited negotiators. First, recycling reduces the costs of creating and implementing law. By reusing the same language developed in previous agreements, actors can draw on their understanding of the prior legal document, easing the burden of implementation and facilitating compliance. Recycled policy arrangements are also low-cost to produce and provide consistency across instruments (Allee, Elsig, and Lugg 2017b, 338). Recycling text can be used as a tool for incrementally developing norms, for achieving symbolic goals, and to avoid creating controversy (Panke 2014).

Second, recycling reduces costs in reaching agreement over law. References to well-developed precedent can facilitate agreement among heterogeneous actors by highlighting previously agreed upon principles, making negotiations more efficient by reducing transaction costs and minimizing the number of veto points (Abbott and Snidal 1998; Mansfield, Milner, and Pevehouse 2007). For example, highly similar resolutions on the Israel-Palestine conflict are adopted by the General Assembly every year, reflecting an intensely negotiated statement of principles with sufficient backing to achieve majority support. These negotiated principles serve as a focal point to facilitate agreement (Garrett and Weingast 1993; McAdams 2000). If the specific language is changed, these changes

can “blow up” the settled text, requiring intensive negotiation to achieve consensus.

We take an individual-centric approach to understanding the dynamics of the IO policymaking process (Arias N.d.; Clark and Zucker 2023; Clark and Dolan 2022; Heinzel and Liese 2021; Heinzel 2022). Rather than simply pass-through for states, individuals are the agents on the ground crafting the text of legal texts and policy documents. For these individuals, recycling of legislative language represents a rational response to limitations on time and negotiating capacity. Given that policymakers—including diplomats—are constrained by limited time and personnel resources (e.g. Hall 1998; Jones and Baumgartner 2005; Panke 2013; Allee and Elsig 2019), this efficiency is crucial. Cognitive biases and heuristics exhibited by boundedly rational policymakers and diplomats also encourage text recycling (Jones and Baumgartner 2005; Poulsen 2015). Previously negotiated texts provide a status quo against which negotiators anchor (Kahneman, Knetsch, and Thaler 1991). Satisficing behavior strongly encourages the reuse of existing templates rather than changes to find an optimal arrangement (Simon 1982). Empirically, early negotiation offers and treaty templates heavily influence later outcomes (e.g. Neale and Bazerman 1992; Korobkin 1998; Galinsky and Mussweiler 2001; Galbraith 2012). In the case of BITs, for example, negotiators frequently adopted the same template agreements even when these were found to be sub-optimal (Poulsen 2015).

If time-scarce negotiators can ease this burden by recycling existing texts, why not always deploy this strategy? That is, why do negotiators sometimes choose *not* to recycle? Re-using previous language necessarily involves a tradeoff between efficiency and specificity. By deploying template language, negotiators choose not to create bespoke texts that address the distinct features of a new situation. This can result in producing documents that create rules and programs that are inefficient or even inappropriate for the given context (Allee and Elsig 2019). Thus, negotiators face constraints on the situations in which it is advantageous to recycle texts. When the stakes are high, negotiators have more incentives to carefully craft specific language for the situation at hand to optimize the quality of the produced text. We explore how the unique institutional context of the UN shapes when negotiators are more or less likely to recycle.

Recycling in the UN

While previous works have argued that recycling is used for efficiency-enhancing purposes in bilateral and multilateral treaty negotiations, in the context of a multilateral policymaking organization, these efficiency incentives vary in distinct ways. We predict that recycling should be employed in institutional contexts when agendas are extensive, and when the salience of the items under consideration is lower.

First, we theorize that the efficiency gains provided by textual recycling are particularly attractive in multi-issue institutions. In such institutions, there are greater substantive and technical demands placed on negotiators. In the UN, this is particularly the case in the General Assembly. In 2021, for example, the [agenda](#) of the General Assembly covered 183 items, spanning the “Effects of atomic radiation” to the “Elimination of racism, racial discrimination, xenophobia and related intolerance,” to “Agriculture development, food security and nutrition.” Because the attention of the UNGA is more diffuse, delegates are less likely to possess the experience or staffing resources necessary to address the issues raised by a given resolution in detail. For example, [Panke \(2013, 2014\)](#) describes in detail the extensive workload for representatives in the UNGA, and notes that delegations of small states in particular struggle to keep up with the demanding pace. In such a scenario, relying on previously negotiated language can be a tool of efficiency and resource maximization ([Allee and Elsig 2019](#)). Cognitive biases such as anchoring and satisficing—all of which encourage recycling existing texts—are expected to be more prevalent for negotiators with less expertise and experience in a given topic area, which is often the case in generalist representatives in the UNGA ([Sunstein 2013](#)).¹

By contrast, because the UNSC focuses narrowly on security matters, its agenda is more constrained. For example, in 2020, the UNSC addressed only 36 topics on its [agenda](#), all of which were specific to matters of international peace and security. UNSC representatives are more likely to be experts in the topics raised by a given resolution, and

¹In general, countries assign specific staff to cover issues in either the UNGA or the UNSC, not both ([Arias N.d.](#)).

thus lack the same need for efficiency shortcuts. Accordingly, UNSC negotiators would be less likely to sacrifice the flexibility and specificity to obtain the efficiency gains that would be result from recycling preexisting legislative language. We therefore expect to observe higher rates of recycling in the UNGA than in the UNSC.

H₁: Recycling is higher in the UNGA than the UNSC.

Second, we expect to observe institutional siloing. Our theoretical logic is grounded in the assumption that differences in institutional domains and rules lead to distinct legislative practices. While the agendas of the UNGA and UNSC lead us to expect differential rates of text recycling in these two chambers, the formal mandates of these bodies should also lead to differences in the substance of their work. The UN Charter tasks the UNSC with addressing issues of global security, while allowing the UNGA to address any issue that is not being concurrently worked on by the UNSC. These differences in both substantive mandate and legislative practice are likely to result in distinct and separate legal norms and practices across the chambers. Topical focus reduces the incentives for diplomats to engage in the work of the other chamber, while differences in legal norms make such cross-chamber interaction more challenging for diplomats to conduct. We expect that this differentiation in purpose and practice should lead to the development of distinct bodies of law in the two chambers, with little cross-over between the two.

H₂: Recycling is higher within chamber than across chambers.

Third, we theorize that the efficiency-specificity tradeoff that recycling entails is more attractive in low-salience issue areas. In such contexts, the stakes for negotiators are lower, negotiators have more latitude to take advantage of the shortcut that recycling text provides. However, when the stakes are high, negotiators are subject to greater scrutiny, and therefore have more incentives to carefully craft a resolution's language. We suggest that that security-related issues in particular are likely to be higher salience than other issue types. Security matters are likely to be more controversial than other topics on the UN's agenda (such as human rights and development) for many reasons, including the allocation of greater institutional resources and political capital, as well as

the high stakes of the potential outcomes. On high-salience issues like security matters, negotiations are subject to high levels of attention by member state governments, publics, and other outside observers. On such matters, public opinion is likely to be more highly activated (Arumi and Bittle 2005; Pew Research Center 2018), and thus negotiators have a strong desire for political cover before taking a potentially dangerous position (Voeten 2005; Fang 2008).

H₃: Recycling is higher on non-security issues than on security issues.

Data and Estimation

Data Collection

We build on the data collected by Arias and Shaffer (N.d.), who follow calls to increase the application of text-as-data methodologies for the quantitative analysis of legal instruments (Alschner 2019). Arias and Shaffer (N.d.) build an original dataset consisting of all UNGA and UNSC resolutions passed since the establishment of the UN. These data are summarized in Table 1. First, the authors used the official UN website to scrape all 14,993 UNGA and 2,331 UNSC resolutions from 1946-2018, then used optical character recognition (OCR) software to convert each document into a plain-text format. Subsequently, the authors used a series of period-specific regular expressions to remove extraneous text and isolate the actual resolution from the image on each page. 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.

Feature Extraction

To study patterns of textual recycling in this dataset, we extracted two types of features from each document. First, using a structural topic model (Roberts et al. 2014),

Figure 1: Examples of resolution texts

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**

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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 58/102 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. Alightments—examples of recycled text—are highlighted in yellow/light shading.

we extracted *topic proportion vectors* for each document in our corpus.² 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.

Second, we identified instances of *text recycling* in our corpus. To measure recycling, we use an alignment algorithm to provide a quantitative measure of how similar two resolutions are to each other. 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.³ 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.⁴ Finally, we calculate an adjusted alignment score by weighting each alignment score by the distinctiveness of the tokens contained in each alignment, to

²After 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).

³SWAlign 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.

⁴Specifically, we find the optimal local alignment for each document, with alignment parameter set to 2 and mismatch/gap parameters set to -1.

downweight common, “boilerplate” recycling (Wilkerson, Smith, and Stramp 2015).⁵

Table 1: Key findings by chamber

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

Results

Before testing our key empirical expectations, we first illustrate that the scope of agenda demands are indeed greater in the UNGA than the UNSC, and thus our key assumption—that the higher demands on negotiators’ time in the UNGA creates additional incentives for recycling—is met. To test this assumption, we examine the topic labels we assigned to the resolutions, which also allow us to characterize agenda dynamics more broadly across the main bodies of the UN. For each chamber and each topic, we counted the number of resolutions from that chamber whose highest-probability topic label matched the given topic. We then calculated a normalized informational entropy value for these chamber-topic count values.⁶ Informational entropy is a standard measure of dispersion for discrete probability distributions, which ranges from 0 (least dispersed) to 1 (most dispersed) (Boydston, Bevan, and Thomas III 2014; Shaffer 2017).

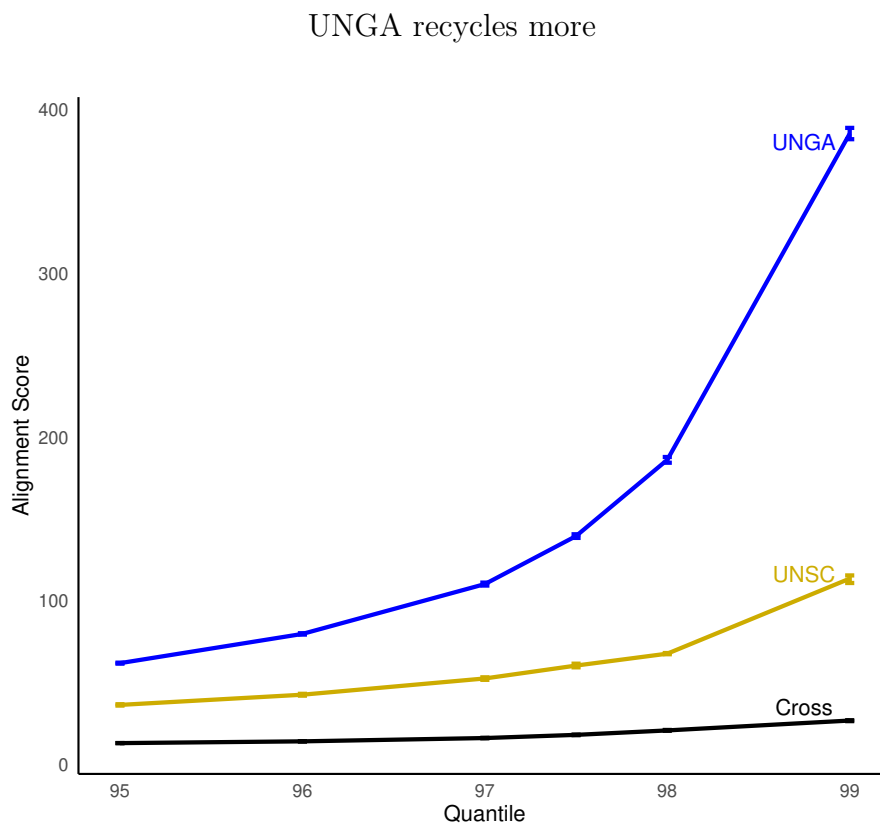
We observe an informational entropy value of 0.95 for UNGA resolutions, compared with an informational entropy value of 0.75 for UNSC resolutions. Since informational entropy is on a non-linear scale, interpreting the difference between these values is difficult. One way to ease interpretation is to use the “effective topics” transformation, which represents the number of equiprobable topics needed to produce a given entropy value

⁵While Panke (2014) considers repetition of UNGA resolutions, our text-based approach provides greater nuance in examining patterns of qualitative repetition at scale.

⁶Normalized informational entropy is defined as $H(X) = -\frac{1}{\ln(n)} \sum_{i=1}^n X_i \log(X_i)$.

(Shaffer 2017).⁷ For the UNGA, this transformation returns a value of 41.1, indicating that UNGA resolutions are almost equally split across all topics. By contrast, UNSC resolutions contain 18.8 effective topics, indicating that a topic proportion vector containing approximately half the number of equiprobable topics would produce an equivalent entropy value to the one observed. 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 our topic labels are correctly picking up on these different agenda dynamics. These findings support our assumption that the agenda of the UNGA is more diffuse than that of the UNSC, and thus that the scope of the demands on negotiators attention are higher.

Figure 2: UNSC, UNGA infrequently borrow text cross-chamber;



Note: Dots represent quantile values, and lines represent asymptotic 95% confidence intervals derived from a normal approximation of the order statistic confidence intervals.

⁷Specifically, the “effective topics” for a topic proportion vector of length n with entropy η is $k = n^\eta$.

Turning, then, to our first empirical expectation, [Hypothesis 1](#), we predicted that rates of recycling—measured here as alignment scores—should be higher in the UNGA than the UNSC because of the higher efficiency demands for negotiators in that chamber. In line with our expectations, UNGA resolutions contain a higher rate of recycling than their UNSC counterparts. The mean adjusted alignment score for UNGA documents with non-zero alignments is 25.6, compared with 20.2 for UNSC documents.⁸ Since legal documents often contain technical language or terms of art that are frequently recycled, focusing on average alignment scores may conceal distinct patterns of recycling that emerge when focusing on documents with the highest alignment scores. However, this pattern of higher text recycling in the UNGA as compared to the UNSC remains consistent at all alignment score percentiles. As shown in [Figure 2](#), 95th percentile alignment scores are approximately 72% larger for the UNGA than the UNSC, while 99th percentile alignments - which represent those documents that recycle approximately a paragraph or more of text - are approximately four times higher for the UNGA than the UNSC. This pattern suggests that the UNGA is indeed more likely to recycle language from existing resolutions than the UNSC, as we posit in [Hypothesis 1](#).

We further observe that the UNSC and UNGA exhibit contrasting legislative patterns and develop largely separate bodies of law. Per [Hypothesis 2](#), we should observe higher rates of recycling *within* chambers than *across* chambers. That is, a given resolution in the UNGA should be more likely to recycle text from previous UNGA resolutions than from UNSC resolutions. As [Figure 2](#) shows, cross-chamber adjusted alignment scores are significantly lower across all quantiles than either set of within-chamber scores.

Finally, we seek to understand how recycling rates vary across topical domains. In [Hypothesis 3](#), we predicted that rates of recycling should be higher on non-security related issues compared to security matters, which would be of higher salience and therefore situations in which negotiators would be more likely to value specificity over efficiency. Our evidence supports this expectation. First, we identify the issues most associated

⁸This comparison excludes pairs of resolutions whose alignment scores are fixed at zero due to the topic model-based pre-filtering step we describe above.

with ‘security’ as the ten topic areas on which the UNSC passes the most resolutions, which we illustrate in Figure 3 with red/bold topic labels. Because security matters are expressly the core of the UNSC’s ambit, the topics that it ‘owns’ to the greatest extent are most likely to be clearly within the security domain. Figure 3 illustrates that these topic areas generally have larger textual canons—that is, there are more resolutions adopted on security topics than others. Ostensibly, this should provide more relevant texts from which negotiators could copy, and thus facilitate recycling. In fact, however, we observe that security-related topics are characterized by lower rates of recycling than other topics. Specifically, we can see that topics on security-related matters—including matters such as ‘Security,’ ‘Africa Conflict,’ ‘Territorial Conflict,’ ‘Occupation,’ ‘Peacekeeping,’ and post-conflict ‘Elections’—we observe low rates of recycling. Non-security matters, including topics such as ‘Space,’ ‘Racism,’ ‘Oversight,’ and ‘Civilians,’ tend to be characterized by higher rates of recycling.

The ‘Peacekeeping Budget’ topic is a notable exception, as a topic area that the UNSC ‘owns,’ yet is characterized by extremely high rates of recycling. Close readings of the relevant resolutions suggest that though the matter at hand is fundamentally related to peace and security, the financing of peacekeeping missions is a largely a technical matter, distinct from the high salience of authorizing and directing peacekeepers. Thus, unlike the substantive issues relating to peacekeeping, the financing of peacekeeping missions is a notable area in the security space in which negotiators have latitude to enact efficiency measures in their drafting. Bearing this exception in mind, the larger patterns across topics support our theoretical expectation that recycling is used less frequently in resolutions in this issue space.

Conclusion

In this paper, we build on previous work, extending arguments about textual recycling as an efficiency-enhancing tool to the multilateral policymaking context of the UN. Unlike previous studies, we are able to illustrate the importance of institutional rules and norms on the likelihood of negotiators to recycle existing texts. We develop a theoretical

framework in which the attractiveness of the efficiency gains, weighed against the importance of specificity, shape when negotiators are more likely to recycle in the drafting process. Using [Arias and Shaffer \(N.d.\)](#)'s data of UN resolutions and a machine learning approach to measure textual recycling, we show that rates of recycling are higher in the UNGA than in the UNSC, where efficiency gains are the most appealing given the extensive scope of the UNGA's agenda. Because of the distinctive rules and norms in each chamber, as well as their different agenda demands, we observe that recycling is more likely to occur within-chamber than across chamber. Finally, we show that recycling is less likely to occur on issues that are related to security matters, where specificity takes precedence over efficiency.

Our theoretical contributions help to understand *when* and *why* recycling is employed in different contexts. We expect that these findings would hold in other institutional contexts. Generally, legislative outputs should recycle existing texts more often in institutions with wide-ranging agendas, and particularly when the issues under consideration are low-salience. Drawing on negotiation theory, we can also posit that recycling would be more likely in institutions that have more member states, that produce long and complex agreements, and that address the same issues year after year ([Allee and Elsig 2019](#)). The European Parliament, for example, is an institution where these conditions are met, and one in which we would expect to observe higher rates of recycling.

Our analysis of drafting strategies in the UN has illuminated areas in which the member states have successfully developed a set of norms and practices to facilitate the creation of international law. More broadly, we assess the relationship between the *design* of legal institutions and the *content* of law. Understanding variation in the adoption of such strategies can help to predict future developments in the creation of international law.

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