

Supplementary online appendix to *Leaders in the United Nations General Assembly: Revitalization or Politicization?*

Abstract

The supplementary appendix includes additional details about the new data on attendance of UNGA session during its opening two-three weeks, the types of speakers attending, and regional representation over time, as well as summary statistics of the explanatory variables. We also provide details about the text corpus of speeches, dictionary of diplomatic terms, supplementary model specifications estimated with additional explanatory variables, and alternative dependent variables, such as based on specific themes centred on global concerns for selected sessions, and, for robustness, based on the percentage and count of global agenda terms per speech; as well as random effects and pooled specifications. We also include details regarding a structural topic model, among other. Overall, supplementary analyses support the results included in the paper.

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1 UN attendance and political leaders

At the centre of our analyses is the type of speakers—leaders or non-leaders—addressing the UN General Assembly, specifically during the first substantive item on the agenda, the United Nations General Debate. This is the most ceremonial and high-profile part of the regular UNGA session, where many national political leaders choose to appear.¹ The debate commences typically in the third week of September (in 2001 in November) and lasts between two and three weeks. Its duration depends on the number of speakers and whether other items on the agenda interrupt the proceedings, so that delegates have the opportunity to discuss them before turning back to the debate. In the early days, the General Debate was also referred to as the general

¹There are also special sessions and special emergency sessions that deal with specific issues such the HIV/AIDS or Israel-Palestinian conflict and that do not include General Debate.

debate on the report of secretary-general, or the general discussion. We retrieved the names of all speakers through the UN Bibliographic Information System (UNBIS) at the United Nations Dag Hammarskjöld Library. Then, research assistants have these names cross-checked against the known names of national leaders in *Archigos* (Goemans, Gleditsch and Chiozza, 2009), as well as Lentz (1994) and governmental web pages, among other. Altogether, 22 per cent of speakers are national political leaders, while the remainder are ministers of foreign affairs, heads of national missions to the UN, high-ranking diplomats and ambassadors, as well as other national politicians, such as vice-presidents or cabinet ministers.

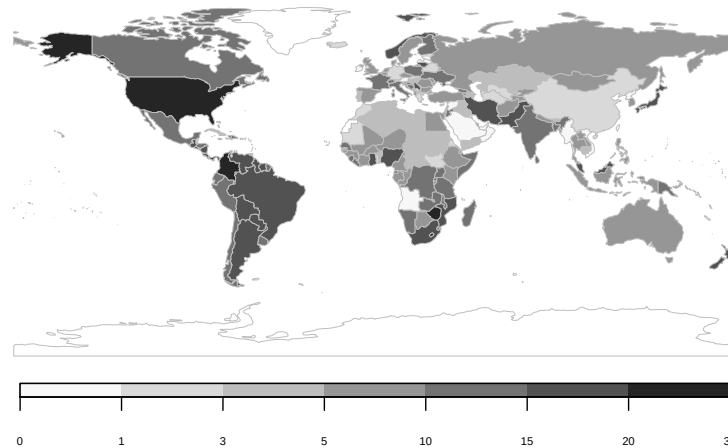


Figure 1: *Heads of State at the UN, Globally.* Note: The number of speakers from member-states who are national political leaders, 1946–2019.

Figure 1 visualises UN attendance by leaders from all member states, from 1946. Some countries never send their leaders to the UN, such as Syria, North Korea or East Germany. Other countries have a tendency to send their leaders half of the time, such as the United States, Cyprus, Colombia or Zimbabwe. There is a significant diversity, in terms of regime types and geographical representation, among the top and bottom sending countries.

In contrast to a timeline included in the paper focused on the percentage and the number of political leaders, Figure 2 plots the percentage of national political leaders, relative to other types of delegates including ministers of foreign affairs and other diplomatic representatives.

from these regimes speaking at the UNGA. The overall share of leaders speaking at the UNGA grew from a low average per year of 4 percent in the 1946–60 period, to 5 percent in the 1960–70s, to 12 percent in the 1980s, to 17 percent in the 1990s, to 35 percent in the 2000s and 43 percent from 2000. In 1960 UNGA, due to the 1960 crisis in the Congo, 21 leaders in total attended the global forum. The 1960 UNGA session did not prove to set a precedent

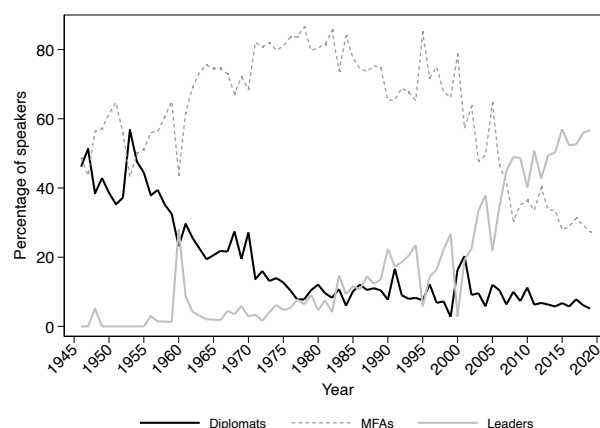


Figure 2: *Political Leaders, Ministers of Foreign Affairs, and Other Diplomatic Representatives in the UN.* Note: Percentage of speakers who are leaders, MFAs, or diplomats, to all speakers in a given session.

	Country size, $km^2(log)$	Population, mln (log)	% with pop.<500,000
MFA or other	874,337 (5.16)	3.55 (15.94)	3.7
Leader	799,673 (4.96)	3.46 (16.02)	3.0

Table 1: *Small Countries and Leaders in the UN* Note:

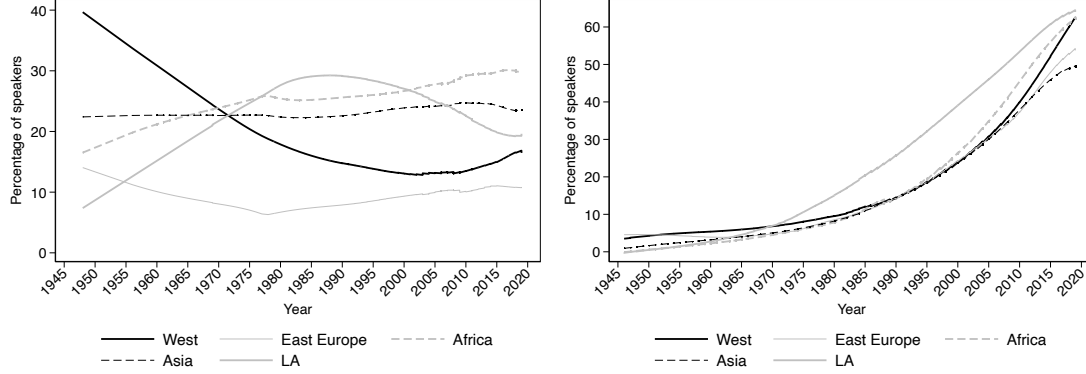


Figure 3: *Percentage of Regional to Total Leaders (Left); Leaders to Others, Per Region (Right).*

for leader attendance. Although Hammarskjöld had an ambitious vision for a more active and interventionist UN, his untimely death cut short that vision’s implementation, and subsequent UNGA sessions did not see the type of leader attendance as in that pivotal meeting—consistent with our argument about the presence of other leaders motivating leaders’ attendance. From 2014 onward, over half of all speakers were national leaders, as seen from Figure 2. It can also be seen that the increased attendance of national political leaders tends to be at the expense of their nations’ ministers of foreign affairs who also have to travel to New York City to attend the United Nations session, not of their nations’ permanent representatives at the UN or ambassadors who are already based in either New York City or Washington, DC, depending on whether such diplomats are also the ambassadors to the US.

We can also plot regional representation over time. Figure 1 (right) reveals an upward trend in leader representation from five UN Regional Groups of Member States: African, Asia-Pacific, Eastern European, Latin American and Caribbean, and Western European and Others Groups. Regional caucusing groups play an important role in the UNGA politics, and we count the percentage of leaders among speakers in five UN Regional Groups of Member States, excluding an observation if an individual regional leader is attending herself (Peterson, 2006, 45–47). As explained by the Department for General Assembly and Conference Management, <https://www.un.org/Depts/DGACM/RegionalGroups.shtml>, we recode the special cases of Turkey, Israel and the USA accordingly. Overall, for the whole period from 1946, the regions that are responsible for the largest representation of leaders in the UN are Latin America and Africa, with 28 and 22 percent of all leaders attending the UNGA being from these regions. In turn, 20 percent of all leaders are from Eastern Europe and Asian groups each, and the Western group has the fifth representation at the world stage, at 19 percent. In contrast, the right subplot of Figure 1 plots leaders’ representation within regions, in terms of their percentage to other speakers from their own regions. This Figure reveals the increasing percentage of leaders relative to other types of speakers in the same UN regional groups, over time. On average over time, however, all regions reveal a similar time trend in an increasing representation of leaders in the global forum.

2 Text analyses: Further details and descriptive statistics

President of GA (PGA): As explained in the paper, we further expand the UNGD corpus, sourced from Baturo, Dasandi and Mikhaylov (2017), by adding the statements of non-country delegates, such as the assembly presidents (PGA) and the UN Secretary-General (from 1997). The texts of the General Debate are stored at the United Nations Dag Hammarskjöld Library and can be accessed using the UN Bibliographic Information System (UNBIS). Most of the

	<i>Leaders</i>			<i>Nonleaders</i>			<i>PGA</i>		
	types	tokens	sentences	types	tokens	sentences	types	tokens	sentences
All Texts	849	2,554	97	1,004	3,231	119	899	2,887	108
Cold war	1,231	4,246	164	1,215	4,191	160	1,195	4,064	161
Post Cold war	797	2,321	88.2	848	2,517	88.9	684	2,017	70
Democracy	838	2,488	96.3	962	2,984	116			
Nondemocracy	871	2,683	99.7	1,034	3,404	121			

Table 2: *Text Corpus* Note: *Types*: average frequency of unique forms of words (per text); *Tokens*: average frequency of words (per text). *Sentences*: average number of sentences (per text).

texts are stored as poor-quality image copies of typewritten documents and require optical character recognition. Each GA meeting has a set of defined priorities and agenda items, and these tend to be outlined by the PGA, who rotates by region on an annual basis. PGAs are usually ministers of foreign affairs or diplomats, and attendantly their speech is both stylistically and topically closer to the language of international diplomacy and the goals of the UN. Because of agenda shifts, membership changes, realignments, member-states that occupy the middle on resolutions vary from year to year. Instead, we utilise the fact that the chief assembly officer—the assembly president—who “speaks for the assembly” (Peterson, 2006, 55), has annual statements on record. The Secretary-General who represents the organisation, makes the first ever address to the assembly only in 1997 and therefore is not used in the majority of analyses.

Every year the assembly elects the president and other officers of the assembly for a one-year term. Even though the PGA is chosen among nation-state delegates, he or she (as of 2020 there were four women in this role) always vacates the task of representing their own country to another diplomat and serves the time in office as an individual (Peterson, 2006, 50). Generally speaking, the PGA keeps a relatively low profile in presiding over the assembly meetings, informal consultations, and representing the assembly as a whole. Keeping a low profile also preserves their ability to act as “honest broker” in the informal consultations (Peterson, 2006, 54). Because presidency rotates annually between five main regional groups, the region’s delegations which turn it is to nominate the presidency resolve the candidacy in advance, so that the election—until 2002 on the first day of the session, and from 2002 onwards about three months in advance of the forthcoming session (GA resolution 56/509)—is merely a formality.

Text corpus summary: Table 2 provides basic summary statistics about the text corpus, for three main groups of speakers: national political leaders, nonleaders, and the presidents of GA. Texts are longer during the Cold War period, than during the post Cold War period. In the late 1940s and 1950s a formal limitations on the number or length of speeches did not exist, yet as the number of UN members increased from 51 in 1946 to 82 in 1959, the delegates agreed to limit themselves. A limit of 30 minutes was agreed upon in 1963, then down to 15 minutes in 2003 (Peterson, 2006, 80–81). Prior to 2003, the debate lasted around three weeks. Resolution 57/301 (13 March 2003) required nine uninterrupted working days for a General Debate. On average, speeches by political leaders and the presidents of the General Assembly are slightly shorter than speeches by other types of speakers.

accord	agrement	aide memoire	alternat	attache	belligerency
resolution	demarche	protocol	casus belli	communique	conciliation
treaty	envoy	rapprochement	ceteris paribus	consulate general	dispatch
plenipotentiary	modus	nota verbale	de jure	entente	exequatur
compromise	modus vivendi	excellency	ex officio	ex gracia	extraterritoriality
ratification	pact	interim	force majeure	high commissioner	legation
convention	non grata	bona fide	pro tempore	precedence	rapporteur

Table 3: *Diplomatic Dictionary*. Note: Drawn from Berridge and James (2003) and glossary of diplomatic terms at <http://www.ediplomat.com/nd/glossary.htm>, accessed 17 March 2020.

The text corpus was preprocessed using the Quanteda package (version 1.5.1) in R (Benoit et al., 2013). Pre-processing included the removal of stop words, symbols, numbers, non-

Latin1 characters, url and hyphens, and punctuation; converting words to lower-case letters; and stemming (Lucas et al., 2015). For the majority of analyses, we also used bigrams (word collocations). For all the analyses but the keyness and readability, the corpus was further reduced by removing country-specific and rare words, i.e., all words that appear fewer than 50 times in the text corpus, and in fewer than 25 documents. Because keyness is fitted to a smaller number of documents, and because word rarity is intrinsic for the readability score estimation, we forsake corpus reduction for those tests. For cosine similarity and dictionary analyses the corpus was likewise further reduced by removing all words that appear fewer than 50 times in the text corpus, and in less than 25 documents. For the named-entity recognition (NER) process, we remove punctuations and stopwords, but do not remove rare words and do not implement word conversion to lower-case letters.

Diplomatic dictionary: Table 3 lists the terms used in constructing this dictionary. The terms are drawn from Berridge and James (2003) as well as online glossary of diplomatic terms, as explained at the bottom of the table.

Description of Variables: Table 4 reports the average, standard deviation, minimum and maximum values, and the total number of observations for the dependent variable(s) and the explanatory variables employed throughout the paper and in the supplementary analyses. The explanatory variables appearing in the paper are as follows.

Variable	N	Mean	Std. Dev.	Min.	Max.
Global agenda (score)	8288	-.002	.998	-2.043	7.524
Similarity to PGA	8288	.583	.105	.174	.842
Similarity to UNSG	4367	.546	.08	.23	.752
Flesch-Kincaid score	8288	15.233	2.352	6.552	26.392
Diplomatic dictionary	8288	.994	.556	0	3.983
Personal pronoun (NER)	8081	.778	.547	0	5.049
Political leader	7897	.241	.428	0	1
Democratic leader	7897	.158	.365	0	1
Nondemocratic leader	7897	.085	.279	0	1
Nondemocratic, other	7897	.443	.497	0	1
Democracy	7381	.44	.496	0	1
UNSC seat	8097	.089	.285	0	1
GDP pc (log)	6192	3.769	.554	2.208	5.278
Same country as UNSG	8288	.003	.053	0	1

Table 4: *Descriptive Statistics*

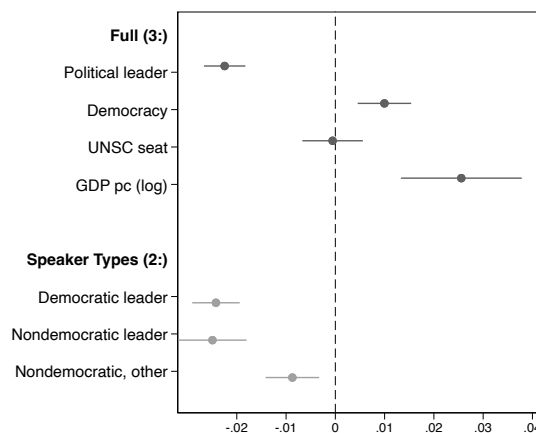


Figure 4: *Similarity with PGA*. Note: The plot displays marginal effects of world leaders' similarity with the PGA's speech, based on Models 7 and 8 (Table 2 in the paper).

	Global agenda:					Similarity with PGA:					Similarity with SG:	
	All sessions					All Sessions					after	
	1:	2:	3:	4:	5:	6:	7:	8:	9:	10:	11:	12:
Political leader	-0.082*** (0.021)		-0.092*** (0.023)	-0.036 (0.025)	-0.098** (0.030)	-0.020*** (0.002)		-0.022*** (0.002)	-0.023*** (0.003)	-0.020*** (0.003)	-0.005** (0.002)	-0.010*** (0.002)
Africa	-0.251** (0.088)	-0.154+ (0.085)	0.073 (0.106)	-0.115** (0.044)	0.004 (0.144)	0.005 (0.006)	0.010 (0.006)	0.017** (0.007)	0.011 (0.008)	0.025*** (0.011)	-0.015** (0.006)	0.001 (0.008)
Asia	-0.173** (0.087)	-0.097 (0.083)	-0.058 (0.104)	-0.037 (0.044)	-0.013 (0.139)	-0.007 (0.006)	-0.004 (0.006)	-0.003 (0.007)	-0.004 (0.007)	0.004 (0.010)	-0.011+ (0.006)	-0.002 (0.007)
Eastern Europe	-0.185 (0.115)	-0.165 (0.109)	-0.145 (0.127)	-0.034 (0.087)	-0.126 (0.167)	0.004 (0.008)	0.005 (0.008)	0.014 (0.009)	0.021** (0.009)	0.011 (0.012)	0.011 (0.008)	0.013 (0.009)
West	-0.154 (0.102)	-0.209** (0.097)	-0.331** (0.120)	-0.061 (0.052)	-0.238 (0.163)	0.015** (0.007)	0.012+ (0.007)	0.010 (0.008)	0.011 (0.009)	0.014 (0.012)	0.047*** (0.007)	0.043*** (0.009)
Democratic leader		-0.103*** (0.027)					-0.024*** (0.002)					
Nondemocratic leader		-0.291*** (0.038)					-0.027*** (0.003)					
Nondemocratic, other		-0.204*** (0.029)					-0.011*** (0.003)					
Democracy			0.211*** (0.029)	0.020 (0.030)	0.294*** (0.045)			0.011*** (0.003)	0.004 (0.003)	0.017** (0.005)		0.013*** (0.004)
UNSC seat			-0.010 (0.034)	0.021 (0.026)	-0.000 (0.048)			-0.001 (0.003)	0.001 (0.004)	-0.010+ (0.006)		0.007+ (0.004)
GDP pc (log)			0.274*** (0.054)	0.023 (0.033)	0.094 (0.087)			0.008+ (0.004)	0.012** (0.005)	-0.000 (0.008)		0.012** (0.006)
Same country as PGA								0.032** (0.010)	0.034** (0.012)	0.031 (0.019)		
Same country as UNSG											0.015 (0.015)	
Constant	1.142*** (0.085)	1.212*** (0.083)	-0.165 (0.241)	-0.848*** (0.135)	0.497 (0.371)	0.538*** (0.007)	0.542*** (0.007)	0.485*** (0.019)	0.579*** (0.021)	0.000 (.)	0.586*** (0.006)	0.520*** (0.023)
Annual fixed effects	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
p	0.246	0.225	0.262	0.160	0.329	0.159	0.150	0.154	0.166	0.224	0.193	0.176
N	7631	7631	6105	2207	3898	7631	7631	6105	4100	2005	3869	3050
N countries	189	189	155	129	155	189	189	155	153	155	189	155

Table 5: *Global Agenda and Similarity to PGA and UNSG*: Regional Groups Note: Models 1–5 have LSS scores of global agenda as the dependent variable; 6–10 have cosine similarity to PGA that year as the dependent variable; Model 9 on the sample prior to 2004, and 10 from 2004; Models 11–12 have cosine similarity to UNSG that year as the dependent variable. All models are estimated as random effects, with year fixed effects. Significant + $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

3 Text analyses: Additional analyses

Additional Analyses with UNGA regional groups: In the main text, we evaluated the differences in rhetoric using the minimum number of control covariates. For robustness, we re-estimate both tables with additional predictors for UNGA regional groups, with Latin American group omitted as a baseline category. Because groups are time-invariant, model specifications are random effects. Table 5 includes the same model specifications as in Table 2 the paper, for each of these dependent variables. Results revealed in Table 5 underline that leaders have lower propensity to speak on global agenda, they also have a lower similarity to either PGAs or UNSGs. The effects of speakers from different regional groups are not consistent, with a possible exception of speakers from Western countries who have a higher similarity with the UN Secretary-General.

In turn, Table 6 replicates with the results for Table 4 in the paper that examines the quality of communication in the UN. There does not appear to be any consistent regional patterns across model specifications, however. In summary, results revealed through model specifications with additional covariates are very similar to simpler specifications in the paper.

Marginal effects (Similarity to PGA): In the paper we reported marginal effects estimated for specifications with the global agenda as the dependent variable. As revealed in Figure 4 that plots marginal effects (similarity with the PGA) following the seventh and eighth model specifications (Table 2 in the paper), on average political leaders, whether democratic or non-democratic, are more distant from PGAs, than other delegates, by about a quarter of a standard deviation of this measure, or, in relation to one standard deviation of 0.103, by 0.023, 0.024 and 0.025 respectively, and the difference is statistically significant.

Special Emergency Session Themes and Other International Events: While we account for attendees' focus on the global international agenda in several ways—in terms of propensity to refer to the global agenda and related terms, in terms of distance to the PGA, and in terms of the top session topic prevalence in speech—we can additionally examine whether leaders are also less likely to engage with more specific themes of global concern, in particular sessions. In principle, every year the world faces various challenges of international and regional security, economic crises and those arising from developmental challenges, among other. Therefore, it is difficult to reliably center on a specific global challenge that defines the agenda of a given UNGA session in a particular year, each year, and hence we have preferred to rely on a more systematic approach such as measuring differences to PGAs who define the session's agenda, in turn drawing from the main challenges facing the world. Still, as an additional test we can draw from the fact that under Resolution 377 (“Uniting for Peace”) from 1950, the UNGA may convene the emergency special session from time to time, addressing a specific, and urgent matter of international security of concern to all international actors. Altogether, the UN has held eleven emergency special sessions over the course of its lifespan. Because the UNGA text corpus covers the period from 1970, we exclude the first five emergency sessions from 1956 to 1967, and include those taking place from 1970. Also, the eleventh session, on Russian invasion of Ukraine was convened in early 2022, a year for which we do not have the text data.

The Sixth special emergency session dealt with the Soviet invasion of Afghanistan and was held in 1980; The Seventh, on Israeli-Palestinian conflict, in 1980 and 1982; the Eighth, on South Africa and Namibia, in 1981, the Ninth, on Israeli-Palestinian conflict, in 1982, and Tenth, also on Israeli-Palestinian conflict, which was the longest standing session, convened in 1997 and held almost every year for a decade since. To measure speakers' attention to urgent global issues, based on the themes as defined by emergency special sessions, we follow the same method we relied on earlier, Latent Semantic Scaling (LSS) (Watanabe, 2021), selecting different “seed words” for each theme. As seed words for the 6th special emergency session's theme, we include “afghanistan”, “amin”, “karmal”, “soviet”, “kabul”, “mujahideen”, “freedom fighter”, “guerrilla”, “mountains”, “occupation”, “Peshawar”, “displaced.” For the 7th, 9th and 10th that all dealt with the issue of the Israeli-Palestinian conflict, we include “palestine”, “palestinian”, “israel”, “jewish”, “jerusalem”, “settlement”, “zionist”, “zionism”,

	<i>Readability score</i>			<i>Diplomatic terms</i>			<i>“Me and I” (NER)</i>		
	1:	2:	3:	4:	5:	6:	7:	8:	9:
Political leader	-0.961*** (0.052)		-1.079*** (0.058)	-0.236*** (0.016)		-0.255*** (0.018)	0.355*** (0.015)		0.364*** (0.016)
Africa	0.257 (0.251)	0.195 (0.231)	-0.241 (0.280)	0.218*** (0.041)	0.231*** (0.042)	0.224*** (0.053)	0.097+ (0.051)	0.148** (0.050)	0.072 (0.057)
Asia	-0.360 (0.247)	-0.411+ (0.226)	-0.433 (0.276)	0.276*** (0.040)	0.286*** (0.041)	0.272*** (0.051)	-0.003 (0.050)	0.038 (0.049)	-0.006 (0.055)
Eastern Europe	-0.614+ (0.327)	-0.579+ (0.298)	-0.713** (0.337)	0.218*** (0.054)	0.230*** (0.054)	0.268*** (0.062)	0.034 (0.067)	0.026 (0.065)	0.103 (0.068)
West	-1.917*** (0.290)	-1.884*** (0.264)	-1.873*** (0.318)	0.117** (0.047)	0.112** (0.048)	0.179** (0.059)	0.129** (0.059)	0.100+ (0.057)	0.173** (0.064)
Democratic leader		-0.957*** (0.066)			-0.215*** (0.020)			0.344*** (0.019)	
Nondemocratic leader		-0.826*** (0.095)			-0.286*** (0.028)			0.249*** (0.026)	
Nondemocratic, other		0.126+ (0.073)			-0.013 (0.021)			-0.108*** (0.020)	
Democracy			-0.022 (0.072)			-0.011 (0.021)			0.107*** (0.020)
UNSC seat			-0.161+ (0.084)			0.003 (0.025)			-0.046+ (0.024)
GDP pc (log)			-0.764*** (0.138)			-0.040 (0.033)			-0.126*** (0.034)
Constant	15.681*** (0.231)	15.640*** (0.218)	18.745*** (0.616)	0.773*** (0.049)	0.779*** (0.049)	0.895*** (0.149)	0.730*** (0.053)	0.766*** (0.052)	1.183*** (0.150)
Annual fixed effects	yes	yes	yes	yes	yes	yes	yes	yes	yes
ρ	0.309	0.267	0.290	0.101	0.103	0.113	0.177	0.167	
N	7631	7631	6105	7631	7631	6105	7619	7619	6096
N countries	189	189	155	189	189	155	189	189	155

Table 6: *The Quality of Leaders’ Communication: Regional Groups* Note: Models 1–3 have Flesch-Kincaid score as the dependent variable; Diplomatic dictionary share to total number of tokens in 4–6; Named-entity Recognition (share of terms to total number) in Models 7–9. All models are estimated as regression models with random, effects with time period fixed effects (annual dummy variables). Significant ** $p < 0.05$, *** $p < 0.01$.

	<i>Special Emergency Session Theme</i>				<i>Other International Events</i>			
	6th	8th	7th & 9th	10th	1974 OPEC crisis	US-USSR summits	9/11	Paris agreement
	1:	2:	3:	4:	5:	6:	7:	8:
Political leader	-0.266 (0.283)	-0.417 (0.255)	-0.567** (0.278)	-0.119** (0.043)	-1.230+ (0.711)	-0.620** (0.214)	0.284 (0.173)	-0.102 (0.164)
Constant	0.314** (0.096)	1.058*** (0.087)	0.772*** (0.109)	-0.253*** (0.063)	2.091*** (0.177)	0.873*** (0.101)	1.859*** (0.105)	0.309** (0.124)
Annual fixed effects	yes	yes	yes	yes	no	yes	yes	no
N	294	292	441	2043	129	286	377	193

Table 7: *Global Agenda in Leaders’ Speech: Emergency Special Sessions and Other Events* Note: Different dependent variables in each column, as explained in text. Models are estimated as regression models with time period fixed effects (annual dummy variables). Significant ** $p < 0.05$, *** $p < 0.01$.

“arab”, “occupied”, “territory.” In turn, for the 8th, on South Africa and Namibia, we include “apartheid”, “race”, “racism”, “pretoria”, “south africa”, “namibia”, “segregation”, “bantustan”, “black”, “sanction.”

In addition to dictionaries associated with emergency special sessions' concerns at the time, for robustness we account for four more major international events of particular concern for the global community at the time. First, we account for the first OPEC oil crisis, triggered by the oil embargo from late 1973 to 1974 by the Arab members of OPEC following the Yom Kippur war between Israel and Arab states, that in turn brought about a major global economic crisis. To account for the agenda associated with this crisis, we include the following seed words: "opec", "petroleum", "oil", "embargo", "geneva", "producer", "israel", "energy", "crisis", "kippur." Second, the period of the US-Soviet Geneva and Reykjavik summits of 1985 and 1986 over nuclear disarmament, which ultimately laid the foundation for ending the Cold war, equally hold the world attention at the time as a major international development. To account for the US-Soviet summits and associated political developments, we include "gorbachev", "reagan", "coexistence", "glasnost", "geneva", "summit", "Reykjavik", "afghanistan", "ballistic", "nuclear", "perestroika", "berlin wall", "missile", "cold war", "disarmament". Third, 9/11 attacks on the US was another major inflection point in the international security, triggering the war on terror, invasion of Afghanistan and Iraq, among other. For 9/11, we include the following seed words: "terror", "terrorist", "terrorism", "osama", "fanatic", "jihad", "qaeda", "al-qaeda", "radical", "suicide", "extremist". Finally, Paris climate accords of 2015 has drawn significant attention globally, and as seed words we include "climate", "carbon", "emission", "environment", "warming", "greenhouse", "ozone", "co2", "disaster", "temperature", "ocean". For each LSS estimation, we then compute average scores for each speech, as explained in the paper, where the more positive values stand for a higher propensity to engage in rhetoric centred on specific theme.

Table 7 reports the results of these supplementary analyses. In the interest of space, and because we estimate attention to specific global concerns during the duration of special emergency sessions (Columns 1–4) or following the major events (5 to 8), making estimation samples much smaller as a result, we fit simple specifications with political leaders as binary indicators included, as well as annual fixed effects for the estimation samples that have observations over more than year. The 7th and 9th special emergency sessions are separate sessions, on Israeli-Palestinian conflict both. However, because the 7th took place in 1980 and 1982, and the 9th in 1982, and we rely on the same seed words for both, in Column 3 we include model specification that gauges speakers' attention to the Israeli-Palestinian conflict in 1980 and 1982, in the UNGA. Because the 10th emergency special session took place over multiple years following its initial meeting in 1997, model 4 has the largest number of observations.

The results in Table 7 indicate leaders are less likely to pay attention to the issue of Palestinian-Israeli conflict in 1980 and 1982 (Column 3); they are not that interested in the same issue during the long, 10th emergency special session (Column 4); they tend to ignore the world oil crisis in their addresses to the UN in 1974, and speak less about the US-Soviet summits of 1985 and 1986, than other speakers. The coefficients on leaders in these specifications are statistically significant (In Column 5 at 0.1 level). Across all but one model specification, that of Column 7 which is centred on 9/11-related rhetoric where the coefficient is positive—leaders are consistently less likely to engage with these specific issues of concern to the world, than other speakers at the UN.

Pooled Regressions and Random Effects: To account for unobserved country variation, throughout we have relied on the fixed effects specifications. Also, while the fixed effects are generally preferred as they are able to capture various country traits from which leaders and non-leaders attend the UN, one can also argue that pooled model specifications are also useful, in particular if we are to account for leader/non-leader and democracy/nondemocracy binary indicators ("Democratic leader", "Nondemocratic leader", "Democratic other" and "Nondemocratic Other"), included in some specifications. If we rely on the fixed effects for this specification, the results may be sensitive, in case of the coefficient "nondemocratic leader", for instance, on only those countries that have been represented by both democratic diplomats and

nondemocratic leaders at some point in time.²

For robustness therefore, Table 9 includes the results of pooled regressions. Columns 1 to 4 include pooled regression with the Global Agenda as the dependent variable, 5 to 8 —with the distance to the PGA as the dependent variable, and 9 to 12 – distance to the UNSG. The first two models in each group are specified with the same controls as in the main specifications. To account for the UN politics and the influence of the powerful members of the Security Council, each third model in each group includes the per cent of resolutions that a member-state agrees with the USA, USSR/Russia, and China, from (Bailey, Strezhnev and Voeten, 2017). Finally, as additional controls, each fourth model also includes the logarithm of the population size from World Development Indicators.³, as well as *distcap* from Mayer and Zignago (N.d.) to account for the geographic distance between national capitals and the NYC where the UNGA sessions take place. The results in relation to all leaders, as well as democratic and nondemocratic leaders specifically, from pooled regressions, remain substantially the same to those from the fixed effects, suggesting they are not sensitive to the modelling choice. Countries that vote similarly to the US tend to have a lower similarity to the PGA texts, and lower emphasis on the global agenda, while those voting closer to China have are closer to the global agenda, and those aligned with USSR/Russia — have lower distance to the PGA. In turn, more populous countries have more emphasis on the global agenda and closer in speech to both PGA and UNSG, while more distant countries tend to emphasize global agenda more, but they are not different in terms of distances to the PGA. Further research may investigate how additional country factors may influence the contents of the UN speeches in more detail.

Additionally, for robustness, Table 10 includes the results of random effects model specifications. The results remain substantially the same as those from the fixed effects, which suggest they are not sensitive to the modelling choice.

Share and Count of *Global Agenda*: Throughout the analyses, we have found that political leaders are less likely to emphasize global agenda in their speeches. However, because we rely on the Latent Semantic Scaling, an approach which estimates similarity between selected “seed words” and all other terms, on a unidimensional scale, the substantive interpretation of coefficients is not intuitive. Therefore, we have discussed the substantive significance in relative terms, that is, in terms of the difference in standard deviations from the average. We have followed standard approach in political science when scholars rely on, for instance, a latent variable model to estimate unobservable phenomena, such as in the democracy analysis in Treier and Jackman (2008) or bureaucratic loyalty in Krause and O’Connell (2019).

However, we can also construct alternative measures, related to latent scores of global agenda in speech, based on the share of “seed words” related to global agenda, to the total number of words, per speech (that is, percentage of terms), as well as the number of such terms in each speech. Thus, on average political leaders use 29 words that relate to the global agenda per speech, in contrast to non-leaders who use 36 such words. The measure based on percentage will be robust to changes in text length over time, as the United Nations addresses get somewhat shorter from late 1990s due to voluntary time limits per speech (Baturu, Dasandi and Mikhaylov, 2017). With this goal in mind, we turn to the dictionary approach, and estimate the number, and the percentage of *Global agenda* terms, per speech. Figure 5 shows strong positive relationship between the measures based on latent scores, and based on shares of terms per speech, with the correlation coefficient of 0.47, statistically significant at 0.000.

We now specify linear model with country fixed effects, as well as the count model (Poisson) with country fixed effects, both with annual year dummies, including the same predictor variables as in the main estimations, and report our findings in Table 8. The results in Table 8 are in line with the results estimated through the Latent Semantic Scaling (LSS): political leaders, whether democratic or non-democratic, tend to have lower shares of global agenda terms (irrespective of the text length), and tend to use fewer such terms whether they speeches are

²We thank an anonymous referee for making this point.

³<https://datacatalog.worldbank.org/dataset/world-development-indicators>

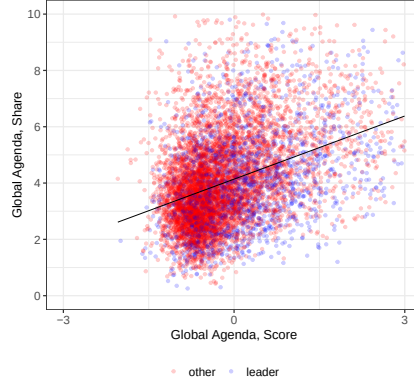


Figure 5: *Global Agenda: Scores versus Shares per Text.*

longer or shorter than average—than other speakers. However, now we can also interpret the substantive effects in a more intuitive manner. That is, controlling for other factors, leaders’ share of global agenda terms is lower by about ten per cent, in contrast to the share of such terms used by other UN speakers, or by 0.1 per cent of total speech, which on average includes 2,800 words in total. The difference is statistically significant, and it is more substantive in the post-Cold war period, than during the Cold war. Because the LSS also accounts for all other terms, related to the “seed words”, by estimating based on a raw number of *Global agenda* terms we are likely under reporting the true difference in speech.

	<i>Proportion of speech:</i>					<i>Count of terms:</i>				
	1:	2:	3:	4:	5:	6:	7:	8:	9:	10:
Political leader	-0.220*** (0.043)		-0.244*** (0.049)	-0.120 (0.080)	-0.261*** (0.061)	-0.098*** (0.004)		-0.126*** (0.004)	-0.052*** (0.009)	-0.141*** (0.005)
Democratic leader		-0.284*** (0.055)					-0.104*** (0.005)			
Nondem. leader		-0.378*** (0.079)					-0.086*** (0.007)			
Nondem., other		-0.219*** (0.062)					0.004 (0.005)			
Democracy			0.165** (0.063)	-0.053 (0.114)	0.238** (0.097)			0.001 (0.005)	-0.040** (0.013)	0.039*** (0.008)
UNSC seat			0.000 (0.071)	0.050 (0.084)	-0.028 (0.100)			0.014** (0.006)	0.037*** (0.009)	-0.017** (0.008)
GDP pc (log)			0.444** (0.143)	0.243 (0.291)	-0.665** (0.255)			0.147*** (0.012)	0.170*** (0.032)	-0.047** (0.020)
Constant	4.374*** (0.101)	4.491*** (0.106)	2.501*** (0.574)	2.382** (1.088)	6.906*** (1.006)					
Year fixed effects	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
$\sigma(u)$	0.893	0.876	0.882	0.763	1.209					
$\sigma(e)$	1.373	1.372	1.364	0.985	1.467					
ρ	0.297	0.290	0.295	0.375	0.404					
N	7897	7897	6173	2241	3932	7897	7897	6173	2238	3932
N countries	200	200	157	131	157	200	200	157	128	157

Table 8: *Global Agenda: Percentage of Speech and Word Counts* Note: Models 1–5 have proportion of speech with *Global agenda* terms as the dependent variable; 6–10 have the count of *Global agenda* terms; Models 4 and 9 on the sample prior to 2004, 5 and 10 from 2004; Models 1–5 are linear regression with country fixed effects; 6–10 are count (Poisson) models with country fixed effects. All specifications include year fixed effects. Significant + $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

	Global agenda:				Similarity with PGA:				Similarity with SG:			
	1:	2:	3:	4:	5:	6:	7:	8:	9:	10:	11:	12:
Political leader	-0.048** (0.024)	-0.054** (0.024)	-0.056** (0.025)	-0.056** (0.025)	-0.022*** (0.002)	-0.022*** (0.002)	-0.022*** (0.002)	-0.022*** (0.002)	-0.010*** (0.002)	-0.009*** (0.002)	-0.009*** (0.002)	-0.010*** (0.003)
Democracy	0.297*** (0.022)	0.354*** (0.023)	0.385*** (0.025)	0.385*** (0.025)	0.018*** (0.002)	0.020*** (0.002)	0.020*** (0.002)	0.023*** (0.002)	0.027*** (0.002)	0.022*** (0.003)	0.022*** (0.003)	0.026*** (0.003)
UNSC seat	-0.008 (0.032)	0.033 (0.032)	-0.037 (0.034)	-0.037 (0.034)	-0.003 (0.003)	-0.002 (0.003)	-0.002 (0.003)	-0.003 (0.003)	0.014*** (0.004)	0.010** (0.004)	0.010** (0.004)	0.005 (0.004)
GDP pc (log)	-0.088*** (0.019)	-0.006 (0.022)	0.029 (0.022)	0.029 (0.022)	-0.005** (0.002)	-0.002 (0.002)	-0.002 (0.002)	-0.001 (0.002)	0.022*** (0.002)	0.018*** (0.002)	0.018*** (0.002)	0.021*** (0.003)
Democratic leader		-0.089** (0.027)				-0.025*** (0.002)				-0.017*** (0.003)		
Nondemocratic leader		-0.315*** (0.034)				-0.031*** (0.003)				-0.041*** (0.003)		
Nondemocratic, other		-0.311*** (0.020)				-0.021*** (0.002)				-0.044*** (0.002)		
PctAgree US			-0.283+ (0.167)	-0.451** (0.196)			-0.015 (0.015)	-0.042** (0.018)		0.042+ (0.022)	0.042+ (0.022)	0.004 (0.025)
PctAgree RUSSIA			-0.048 (0.097)	-0.012 (0.101)		0.032*** (0.009)	0.032*** (0.009)	0.032*** (0.009)		0.055** (0.017)	0.055** (0.017)	0.063*** (0.018)
PctAgree China			0.352** (0.131)	0.259+ (0.140)		-0.005 (0.012)	-0.005 (0.012)	-0.014 (0.013)		-0.022 (0.018)	-0.022 (0.018)	-0.043** (0.019)
Geographic distance				0.211*** (0.048)			0.007 (0.004)	0.007 (0.004)				0.009 (0.006)
Population size (logged)				0.039*** (0.006)				0.001+ (0.001)				0.002** (0.001)
Same country as UNSG									0.006 (0.013)			
Constant	-0.718*** (0.104)	-0.560*** (0.092)	-0.875*** (0.189)	-2.531*** (0.304)	0.643*** (0.009)	0.633*** (0.008)	0.646*** (0.017)	0.596*** (0.027)	0.457*** (0.010)	0.525*** (0.005)	0.472*** (0.022)	0.407*** (0.035)
Annual fixed effects	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
r^2	0.39	0.41	0.38	0.39	0.60	0.57	0.61	0.61	0.48	0.45	0.50	0.50
N	6173	7897	5795	5486	6173	7897	5795	5486	3075	3976	2810	2671

Table 9: *Global Agenda and Similarity to PGA and UN Secretary-General: Pooled Regressions* Note: Models 1–4 have LSS scores of global agenda, as the dependent variable; 5–8 have cosine similarity to PGA that year as the dependent variable; Model 9 on the sample prior to 2004, and 10 from 2004; Models 11–12 have cosine similarity to UNSG that year as the dependent variable, estimated on the 1997–2019 sample. All models are estimated as random effects, with year fixed effects included. Significant + $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

	Global agenda:					Similarity with PGA:					Similarity with SG:		
	All sessions					All Sessions					after		
	1:	2:	3:	4:	5:	6:	7:	8:	9:	10:	11:	12:	
Political leader	-0.069*** (0.021)	-0.080*** (0.023)	-0.037 (0.025)	-0.083** (0.030)		-0.019*** (0.002)	-0.022*** (0.002)	-0.023*** (0.003)	-0.019*** (0.003)		-0.006** (0.002)	-0.010*** (0.002)	
Democratic leader	-0.095*** (0.027)					-0.024*** (0.002)							
Nondemocratic leader	-0.279*** (0.037)					-0.027*** (0.003)							
Nondemocratic, other	-0.209*** (0.028)					-0.013*** (0.003)							
Democracy			0.192*** (0.028)	0.020 (0.026)	0.276*** (0.044)		0.012*** (0.003)	0.006+ (0.003)	0.017*** (0.005)			0.016*** (0.003)	
UNSC seat			-0.008 (0.033)	0.018 (0.025)	0.007 (0.048)		-0.001 (0.003)	0.002 (0.003)	-0.010+ (0.006)			0.008** (0.004)	
GDP pc (log)			0.181*** (0.046)	0.047+ (0.028)	0.037 (0.068)		0.005 (0.004)	0.011** (0.004)	-0.007 (0.006)			0.026*** (0.004)	
Same country as PGA							0.031** (0.010)	0.032** (0.011)	0.032+ (0.019)				
Same country as UNSG												0.012 (0.015)	
Constant	0.975*** (0.056)	1.095*** (0.057)	0.171 (0.191)	0.000 (.)	0.697** (0.274)	0.538*** (0.005)	0.545*** (0.005)	0.501*** (0.015)	0.000 (.)	0.000 (.)	0.586*** (0.005)	0.473*** (0.017)	
Annual fixed effects	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Country fixed effects	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
$\sigma(u)$	0.383	0.360	0.378	0.139	0.502	0.029	0.027	0.026	0.025	0.033	0.033	0.026	
$\sigma(e)$	0.668	0.666	0.645	0.312	0.726	0.061	0.061	0.060	0.057	0.061	0.053	0.052	
ρ	0.248	0.226	0.256	0.165	0.324	0.180	0.164	0.160	0.165	0.227	0.283	0.197	
N	7897	7897	6173	2241	3932	7897	7897	6173	4152	2021	3976	3075	
N countries	200	200	157	131	157	200	200	157	155	157	197	157	

Table 10: *Global Agenda and Similarity to PGA and UN Secretary-General: Random Effects* Note: Models 1–5 have LSS scores of global agenda, as explained in text, as the dependent variable; 6–10 have cosine similarity to PGA that year as the dependent variable; Model 9 on the sample prior to 2004, and 10 from 2004; Models 11–12 have cosine similarity to UNSG that year as the dependent variable, estimated on the 1997–2019 sample. All models are estimated as random effects, with year fixed effects included. Significant + $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

4 Structural Topic Model

Another way of studying text differences between leaders and nonleaders is to rely on nonsupervised machine learning analyses. The Structural Topic Model (STM) is implemented using the *stm* package (version 1.3.3) in R (Roberts, Stewart and Tingley, 2016). The STM analysis permits another approach to detect systematic differences between speeches of leaders, non-leaders, and PGAs. This enables us to examine whether not just the style, but the substance, of speech differs across delegate. If leaders are indeed motivated by personal agendas, not policy ones, we would expect the topics of their speeches to diverge from those of other delegates.

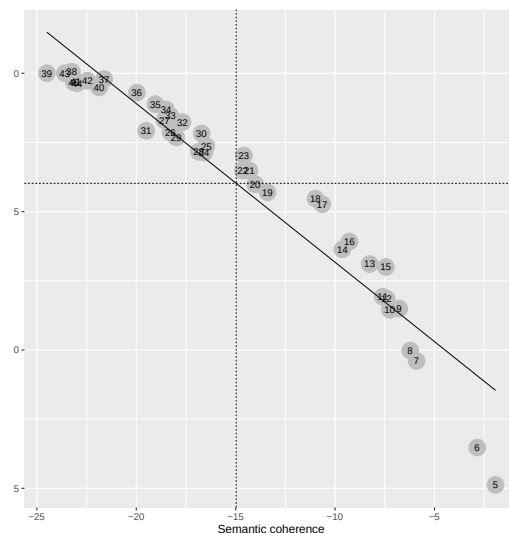


Figure 6: *Optimal Number of Topics*. Note: Estimated from STM, as described in text.

The text corpus of the UN speeches was pre-processed in the same manner as explained above. In order to reduce computational time as well as to exclude country-specific topics, i.e., classification driven by rare and name-entity specific terms, STM analysis was conducted on a reduced corpus based on removals of words that appear fewer than 150 times in the corpus, and in less than 75 documents. Following the recommendations in Roberts et al. (2013), we examine exclusivity and semantic coherence measures to evaluate topic quality. Semantic coherence measure for topic quality evaluation was proposed by Mimno et al. (2011). We estimate exclusivity scores for each topic following Bischof and Airolidi (2012). The logic behind the process is that highly frequent words in a given topic that do not appear very often in other topics render such topic exclusive. In turn, cohesive and exclusive topics are semantically useful. Specifically, we hypothesise that the following covariates need to be included in the STM model: a Cold War period indicator, an indicator for a Western block country, political leader, democracy, country size, and gender. The model also accounts for country fixed effects and a time trend. The observed metadata will affect the frequency with which each topic is discussed. This in turn will allow us to examine the degree of association between chosen covariates and the average proportion of a document discussing a topic.

First, we assess the optimal number of topics to be included in the model specification. Following the recommended procedure in Roberts, Stewart and Tingley (2016), we generate a set of candidate models ranging between 5 and 45 topics. The results displayed in Figure 6 can be used to evaluate the exclusivity and semantic coherence. As can be seen, the model with 23 topics is chosen because it has the largest positive residual in the regression fit; it also provides higher exclusivity at the same level of semantic coherence.

Next, we evaluate topic quality. Figure 7 includes a list of the main topics (as well as the highest probability words associated with each topic). In addition to the highest probability words, we equally rely on three other common measures in order to understand better how to define topics. Specifically, we examined the top words based on the FREX metric, which

STM Summary: Top Words

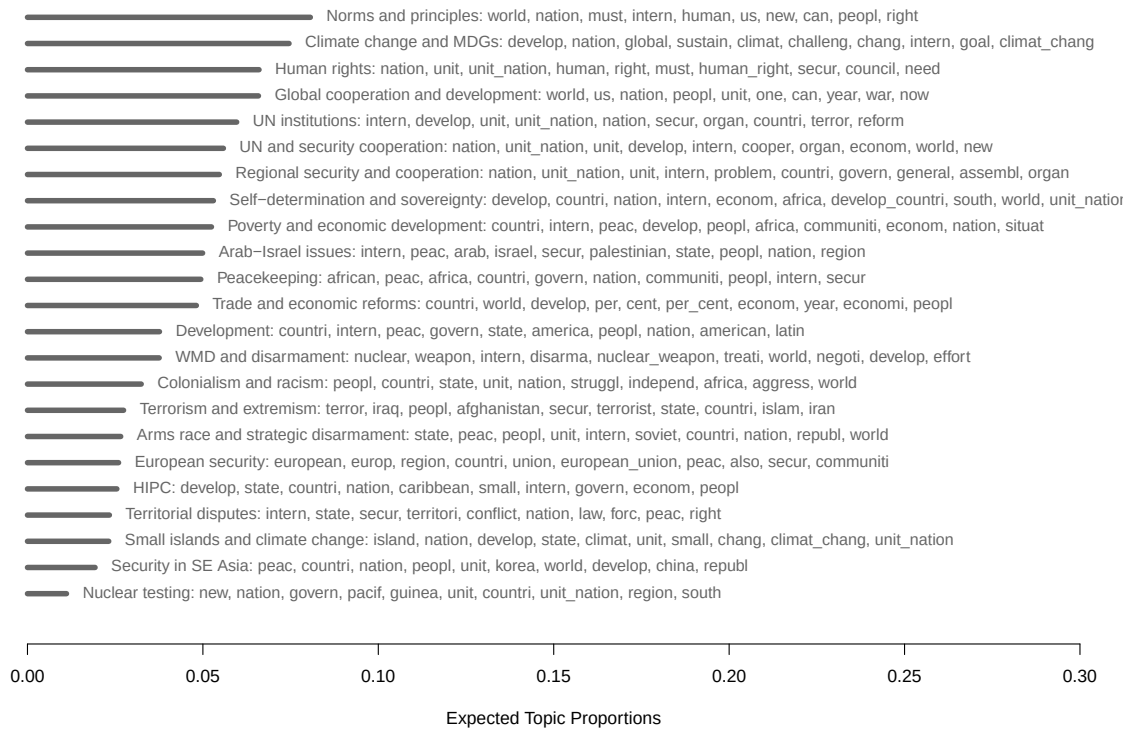


Figure 7: *Topics by Prevalence*. Note: Estimated from STM, as described in text.

combines exclusivity and word frequency; the *lift* metric, which weigh words that appear less frequently than in other topics; and the *score*, which is estimated by dividing the log frequency of the word in the topic by the log frequency of the word in other topics.

Leaders v non-leaders: USSR and Libya In the paper we include an illustrative table with examples of differences in speech between several leaders and non-leaders (Table 1). We also included the results of keyness analyses comparing speeches of Abdelaziz Bouteflika while as the foreign minister of Algeria in the 1970s and as the PGA (in 1974).

While a detailed case study of the differences in rhetoric between leaders and nonleaders is beyond the scope, as a further robustness test and an additional illustration we include the results of the keyness analyses for the two leaders whose attendance of the UN we referred to in the main body of the paper. Specifically, on the left of Figure 8 we compare speeches made by Nikita Khrushchev in 1959–60 in the United Nations, contrast with other Soviet representatives in the UN in 1956–64 period, when Khrushchev has consolidated his power following the fall of the “anti-party” opposition and until his ouster in 1964. On the right of the same figure we compare Muammar Gaddafi’s speech in 2009 with speeches made by other Libyan representatives, for 2000–2010. To account for possible agenda shifts, we only focus on one decade of Libya’s speeches.

The keyness approach isolates words that frequently appear in a given text(s), capturing the degree to which a given word is “key” overall, in contrast to another text(s). That is, we want to show whether there is evidence that leaders tend to invoke terms that are different from the most common terms used by their foreign ministers or the ambassadors to the UN, and whether the latter are more likely to include global agenda terms in their speeches. In the right sub-plot of Figure 8 we can see that while the Soviet MFA Gromyko and other speakers (in grey) tended to center on questions of security (‘weapon’, ‘hydrogen’, ‘test’, ‘atom’, ‘militari’) and the Middle East affairs (‘israel’, ‘arab’, ‘egypt’, ‘jordan’), as well as PRC’s UN membership (‘china’), Nikita Khrushchev, as discussed in the paper, firmly centred his speeches in his appeals

to the newly independent nations, particularly in relation to the Congo crisis and decolonization ('coloni', 'congo', 'welcom', 'colonialist', 'congoles'). Notably, he spent a considerable part of his speech devoted to domestic politics and policy, not the global agenda of the organization ('electr', 'educ', 'cultur', 'work', 'worker', 'kazakhstan'), with a 'kazakhstan' reference indicating his signature domestic policy, that of the Virgin Lands campaign in Kazakhstan.⁴

In turn, while Libyan representatives in the 2000s did not significantly deviate from the organizational agenda ('develop', 'reform', 'session', 'cooper', 'organ'), and still covered the required policy of Gaddafi's concern, focused on the Middle East affairs ('occup', 'terror', 'destruct', 'libya'), Muammar Gaddafi used his 2009 address to attack the United States ('US', 'america', 'super-pow', 'taliban', 'afghanistan'), and to criticise the existing structure of the UN Security Council, proposing his own reform initiative of the whole UN system from the point of view from Libya, as seen from distinct and frequent references to 'preambl' and 'seat' (as in the UNSC seat).⁵ While the results displayed in Figure 8 are illustrative, they are however representative of the general pattern of differences in how leaders and nonleaders tend to address the UNGA over time.

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⁴'The peoples of the Soviet Union are engaged in peaceful constructive labour to achieve the targets of the seven-year plan for the development of the national economy. As a result of the fulfilment of this plan, the total industrial production of the USSR will approximately double during the seven-year period. The output of electric power will be more than doubled, and in Central Asia almost tripled. ... The industrial production per caput of Kazakhstan, a once backward country, is equal to that of Italy, and its per caput electric power output, for example, is higher than that of Italy and equal to that of Japan.'

⁵'The Preamble is very appealing, and no one objects to it, but all the provisions that follow it completely contradict the Preamble. We reject such provisions, and we will never uphold them; they ended with the Second World War. The Preamble says that all nations, small or large, are equal. Are we equal when it comes to the permanent seats? No, we are not equal. ... We joined the United Nations because we thought we were equals, only to find that one country can object to all the decisions we make. Who gave the permanent members their status in the Security Council? Four of them granted this status to themselves. The only country that this Assembly elected to permanent member status in the Security Council is China. This was done democratically, but the other seats were imposed upon us undemocratically through a dictatorial procedure carried out against our will, and we should not accept it.'

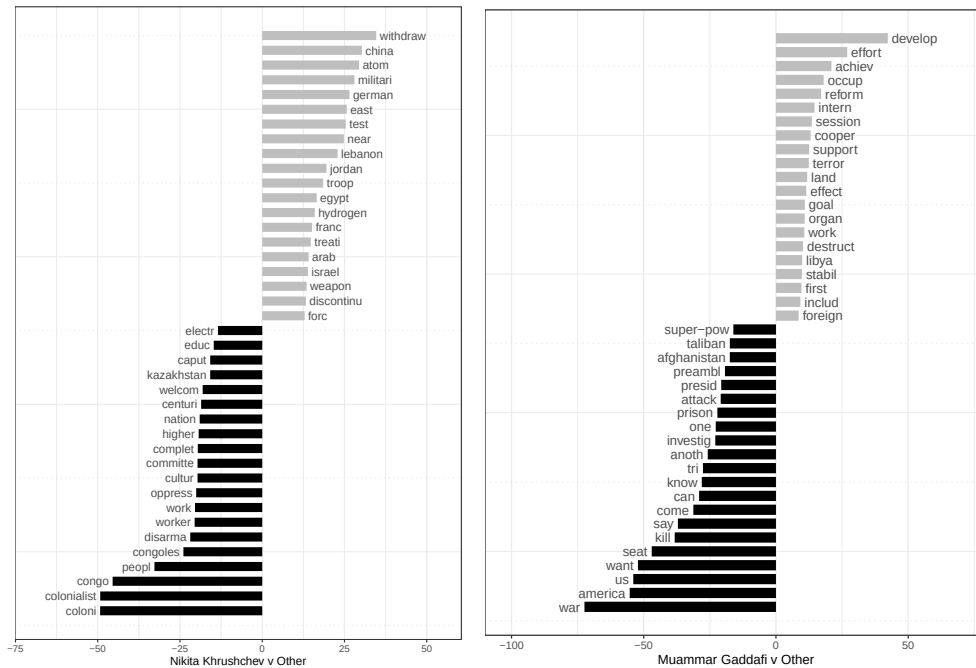


Figure 8: *Lexical Differences: Khrushchev and Gaddafi v Others*. Note: Left subplot compares Nikita Khrushchev in 1959–60 with other Soviet representatives in the UN in 1956–64 period; Right subplot compares speeches of Muammar Gaddafi in 2009 to other Libyan representatives addressing the UN in 2000–2010 period.

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