Multilateralism of the Marginal: Least Developed Countries and International Climate Negotiations, 1995–2016[1]

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Multilateral deliberations are important sites for structuring political relations between countries from the Global North and the Global South. While outcomes of deliberations often reaffirm relations of hegemony and dependence, recent studies demonstrate that marginal actors sometimes leverage international rules and norms to thwart dominant political rationales. Using summary reports of the United Nations Framework Convention on Climate Change meetings from 1995 to 2016, the authors leverage computational techniques to examine shifts in national delegates' positionality and policy preoccupations in these negotiations. After talks briefly collapsed in 2009, traditionally weak nations emerged as subtle but influential players in setting the international climate agenda. The authors claim this surprising outcome is possible because marginal actors cultivated a specific style of deliberation that the authors call "persuading from the periphery." Building from textual traces, the authors identify a repertoire of relational and discursive strategies these countries use to reconfigure the social and symbolic structure of negotiations.

Prevailing social theories of international relations rarely consider the preferences and rationales of weak nation-states to be important factors in creating global norms or rules. World society scholarship, perhaps the dominant

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sociological perspective in this domain, indicates that the diffusion of institutional models or "scripts" of governance flow from modern liberal states to less modern, less liberal states and not the other way around (Meyer, Boli, et al. 1997; Boli 2005; Schofer et al. 2012). However, evidence from negotiations under the United Nations Framework Convention on Climate Change (UNFCCC) presents a surprising challenge to this perspective. Contrary to expectations from scholarship in world society and the sociology of international relations, the most subordinate members of the UNFCCC—the least developed countries (LDCs)—have increased, over time, their capacity to speak out and shape the multilateral climate agenda. They do so, as we argue in this article, by cultivating specific negotiating techniques, a set of social and symbolic practices that we call a "deliberative style."

The LDCs constitute the poorest and most materially dependent members of the United Nations. Despite their marginal status, this group has recently made numerous successful interventions at the annual meetings of the UNFCCC, the primary venue dedicated to "prevent[ing] dangerous anthropogenic interference with the climate system" (UNFCCC 1992).[2] These interventions include (1) introducing a new concept of international burden sharing centered around the notion that high emitting countries should bear responsibility for climate-induced damages suffered by poorer nations, a concept called "loss and damages" (UNFCCC 2013, decision 2/CP.19; 2015*a*, art. 8), and (2) lobbying to change the global temperature target from 2°C (as preferred by many developed and emerging economy countries) to "well below 2° C compared to pre-industrial levels *and pursuing efforts to limit the temperature increase to 1.5° C*" (UNFCCC 2015*a*, art. 2/1(a); emphasis added).[3]

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[2] The category of LDCs, which includes countries such as Bangladesh, Sudan, and Malawi, was proposed by the United Nations in 1971 to refer to countries with low levels of socioeconomic development and weak institutional and human capacity. The category is intended to identify countries deserving of special forms of external support (i.e., humanitarian and development aid). These countries are also generally considered among those most vulnerable to the negative effects of climate change. There are currently 46 members of the UN LDC group, with a total population of nearly 1 billion people. For a list of these countries, see the online supplement.

[3] Lowering the temperature target requires that countries reduce greenhouse gases more quickly than if the target is set higher. The 1.5°C target means that "global net anthropogenic CO2 emissions [must] decline by about 45% from 2010 levels by 2030 . . . reaching net zero by 2050" (IPCC 2018, p. 12). This translates into a more rapid transition from fossil fuels, particularly for developed countries. For summaries of these and other key interventions by the LDCs post-2009, see Jarju (2016) and Monzani (2018).

These seemingly small additions to the debates within the UNFCCC were actively resisted by more powerful nations (e.g., McNamara 2014; Ciplet, Roberts, and Khan 2015; Tschakert 2015; Biniaz 2016; Guillemot 2017; Falzon et al. 2022). Thus, accounting for their inclusion in official negotiation decisions and, as we will demonstrate, their successful circulation as scripts for climate action outside the UN negotiations open up two intersecting lines of theoretical inquiry. The first line of inquiry speaks to theories of diplomacy. These sanctioned texts are important not only in their substance but also in how they were brought about (i.e., via changes wrought in the social and practical dynamics of the negotiations). Tracking these changes supports recent views of multilateral agency as an emergent and relational phenomenon, which unfolds within actual sites of diplomacy (Adler-Nissen and Pouillot 2014; Pouliot 2016*a*; Sending 2016; Braun, Schindler, and Wille 2019). The second line of inquiry picks up on theories about the production of institutional scripts. Not only do these peripheral issues become adopted within multilateral texts, but their adoption creates conditions for other weak actors (e.g., citizen groups) to hold more powerful actors (e.g., national governments) accountable for climate inaction. In other words, we show that these marginal scripts travel beyond the confines of the UNFCCC and are influencing how some dominant UN states administer their internal polities—a surprising outcome from the perspective of world society theory.

To make sense of this unexpected influence, we look both upstream and downstream of these diplomatic decisions. First, to explain their provenance, we model interactions between delegates to the UNFCCC via a unique textual corpus that summarizes actual deliberations spanning the negotiations from 1995 to 2016. This corpus then allows us to track how countries' methods of debate and persuasion change over time, particularly ahead of marginal actors' success in getting preferred policy initiatives accepted by other delegates. Finally, we overlay these shifts in multilateral practice with evidence from outside the UNFCCC of how other marginal actors (e.g., civil society groups) use these scripts to pursue their own climate-oriented actions in differing national contexts. By connecting the outcomes of international politics to the microinteractions they are composed of, our approach links moments of ephemeral negotiations to the more enduring institutional forms they (re)produce.

Our findings suggest that to understand sources of innovation and change in the world society, we must open up top-down theories of cultural diffusion popularized by world society scholarship and make room for a more bottom-up, practice-oriented perspective of cultural influence. Doing so will help us account for how marginal actors contribute to the production of institutional scripts. At the same time, this approach also expands our notions of how such scripts circulate, which may occur not just via hierarchical channels but also through more horizontal, conjunctural, or "rhizomatic" trajectories (Wimmer 2021). By making these interventions, we contribute to sociological theories

about the sources and modes of institutional change in international politics, particularly in response to the growing climate crisis.

CONCEPTUAL FRAMEWORK

Sources of Institutional Innovation in International Politics

World society scholars have long studied relations between nation-states as a means for understanding processes of institutional change. Multilateral forums and international organizations (IOs), where nation-states mingle, are of keen interest to these scholars because they serve as sites for the diffusion of scripts that influence how states are internally structured (Meyer, Boli, et al. 1997; Boli 2005). Particular templates of governance circulate more successfully than others, according to this literature, not because they are superior by design per se but because they often confer symbolic legitimacy on the actors who adopt them (Meyer and Rowan 1977; DiMaggio and Powell 1983). When newly decolonized countries, for instance, sought to demonstrate their adherence to modern ideas of democratic and economic governance, IOs provided them precooked "institutional models," that is, articulated, universalistic, rational schema of administration, law, and science, with which to do so (Schofer et al. 2012; Bromley and Meyer 2015). As this research shows, the global spread of rules covering everything from trade and fiscal policies to education and the protection of the environment is strongly correlated with the rise of IOs during the post–World War II period (Boli and Thomas 1997; Meyer, Frank, et al. 1997; Frank, Hironaka, and Schofer 2000; Babb 2009; Hironaka 2014; Longhofer et al. 2016).

IOs in this accounting are foregrounded as pass-through structures, vessels through which powerful (principally Western) states—the promulgators of institutional models—exert isomorphic pressure on newer members of the world polity (Chorev 2013). By favoring a top-down notion of cultural diffusion, however, this literature tends to obfuscate how dynamics of interaction within sites of international relations play a crucial role in creating scripts that may deviate from existing world society hierarchies. Interest in these more contingent drivers of institutional change has drawn the attention of a new generation of sociologists whose work examines how scripts and models are constructed in the first place. This research has led to a growing set of studies demonstrating how actors within IOs actively craft scripts, sometimes in opposition to the preferences of powerful patron states (Chorev 2012*b*; Block-Lieb and Halliday 2017; Kentikelenis and Seabrooke 2017; Finnemore 2021).

By highlighting how localized practices and perspectives within IOs influence institutional models, this approach productively parts ways with world society's view of a single world culture tending toward global homogeneity.

This research shows, for instance, how intermediary groups, such as the World Health Organization (WHO), the World Trade Organization (WTO), or the International Monetary Fund (IMF), sometimes succeed in quietly resisting imperatives of dominant nation-state members on whom they depend for resources and legitimacy.[4] These "successes" arise, according to this literature, when IOs (and their staff) enjoy conditions of epistemic authority, a favorable social position within broader networks of international relations, and socially skillful leaders (Battilana, Leca, and Boxenbaum 2009; Chorev 2012*b*). In all of these cases, IOs seize opportunities to "selectively align" with hegemonic norms (i.e., neoliberalism) while creating space to pursue alternative policies, including those supported by more marginal members of the world polity.[5]

This more agentic approach to understanding outcomes of interest to world society scholars is promising but also limited. So far, its explanations rely on the presence of very capable, well-resourced bureaucrats who can steer IOs cohesively and strategically. As a result, there is a need to widen the set of cases to consider more fundamental causes of script formation and diffusion (i.e., not just the availability of "ready-made" models or the presence of savvy bureaucrats). This article responds to this need by introducing a more bottom-up view of how models of governance form in an instance in which the rules and symbolic frames for multilateral action are still undergoing processes of "institutional settling" (Halliday 2009; see also Slez and Martin 2007). Our data on the agreements and standards emerging from international climate negotiations are crucial on both of the above counts: the set of agents considered is broader (adding in representatives of the world's most marginalized countries), and the portions of the causal chain leading to script formation are extended both backward (into the history of multilateral discussion) and forward (into their unexpected trajectories of diffusion).

Analyzing textual data on international political interaction allows us to both observe the production of unexpected institutional scripts and link these

[4] For the WHO, this has included taking more rights-based approaches to delivering global public goods (such as access to health care; Chorev 2012*a*); for the WTO, it has meant supporting differential drug pricing on international markets (Chorev 2012*b*); and for the IMF, it has meant pursuing more limited enforcement of both international bankruptcy laws and resisting stricter regulations governing the movement of capital within and across borders (Halliday and Carruthers 2007)—all positions that went against the prevailing policies advocated for by the United States, often considered the dominant member in these organizations.

[5] While we stay close here to the literature tracking how IO staff, in interaction (and sometimes collaboration) with marginal members of the world polity, advance alternative scripts, there is also a parallel set of cases we could discuss examining how highly capable nongovernmental organization (NGO) actors use symbolic devices (e.g., benchmarks) and or epistemic status (e.g., scientific capital) when trying to influence multilateral policies ranging from global tax protocols to rules on international trade (e.g., Seabrooke and Wigan 2016; Eagleton-Pierce 2018). We thank an *AJS* reviewer for drawing our attention to these additional comparative avenues.

scripts to a culturally grounded set of explanatory mechanisms. In the absence of traditional sources of multilateral influence, such as material, coercive, or normative power (Zartman and Rubin 2000; Barnett and Duvall 2005), weaker actors, we argue, must rely on a mix of other tactics to effectively participate in international politics. This includes deploying sociosemantic techniques to make themselves heard and heeded by other parties of multilateral negotiations. When sustained over time and repeatedly used by particular actors in the negotiations, we call these sets of techniques a deliberative style.

Deliberative Styles

Our concept of deliberative styles borrows from both political and cultural sociology. On the one hand, we consider the UN negotiations a site of international political deliberation (Dryzek and Stevenson 2011; Block-Lieb and Halliday 2017). By this, we mean a space where parties go beyond instrumental definitions of national interest and seek to develop a shared conception of the common good through reasoned and persuasive debate (Habermas 1974; Putnam and Henning 1989). More than mere "bargaining" (which involves clear quid pro quo between parties) "deliberation" includes mutual adjustments of actors' preferences based on an evolving understanding of the collective situation (Steiner et al. 2004).[6] Deliberative modes of interaction, while always embedded in relations of power and authority (Fraser 1990), also typically imply an outward commitment to rational argumentation (i.e., a modicum of shared language and recognition of common facts), joint-problem definition, and an effort to view the problem from the perspective of ones' interlocutors (Calhoun 1992; Risse 2000; Adut 2012).

Styles, on the other hand, we consider to be sociocultural practices that arrange similar symbolic or material elements into recognizable patterns. Styles can be individual (Tannen 1984), but more often than not, they signify membership within a larger group of similar pattern makers (Geertz 1972; Eliasoph and Lichterman 2003; Eliasoph and Lo 2012). Writing about dialects, for instance, sociolinguist John Gumperz describes particular styles of group talk

[6] The rhetorician Constanza Jory points to two different genres of political speech: ones that engage in "offer-making" (i.e., bargaining) and those that "propose" courses of action (i.e., deliberation; Jory 2016). In Jory's framework, "It is not thereby the presence of a conflict of interest or the presence of a set of shared interests as such, but whether the speech act is performed to solve a conflict of interest or to promote shared interests, that will define whether an offer or a proposal has been performed, and whether the exchange is an instance of negotiation or deliberation" (p. 158). Neither genre necessarily excludes the other, and the UNFCCC negotiations clearly involve the use of both. But since the problem of climate change requires cooperation around "shared interests" of risk reduction, arriving at the right course of action requires forms of deliberative interaction that go beyond mere bargaining.

(what he calls "speech communities") as "any human aggregate characterized by regular and frequent interaction using a shared body of verbal signs and set off from similar aggregates by significant differences in language usage" (Gumperz and Dil 1971, p. 114). Along these lines, we define deliberative styles as identifiable forms of interaction and argumentation practiced by particular members of the multilateral community that are distinct from those practiced by other members of that community.

What countries talk about, and how they speak, we claim, can influence processes of multilateralism by circulating shared forms of language, ideas, and identities—the symbolic substrate that determines whether particular conceptions of problems gain shared meaning between social actors (Adler-Nissen 2015; Blaxekjær and Nielsen 2015; Pouliot 2016*b*). While all delegates within the UNFCCC have a deliberative style, the importance of style, we argue, is most evident for countries that have no other means of exerting influence. Our concept partially resembles Mische's (2008) notion of "communicative styles," which she uses to explain how student activists forge new forms of political talk and action in the aftermath of Brazil's military dictatorship. Her work shows how different speaking styles are mobilized across "complex and heterogenous civic arenas" (p. 48) to contribute to concrete social movement goals, such as political outreach, coordination, and alliance building in a newly democratic Brazil.[7] Similarly, we conceive deliberative styles as ways of communicating social and cultural differences in a political forum. When exercised skillfully, such styles can strengthen the clarity and persuasive appeal of a given negotiating group's proposed course of action.

These ways of communicating, we posit, emerge from two dimensions of multilateral practices: (1) relational positioning and (2) discursive strategies. In the case of the LDCs, we identify two forms of relational positioning—(*a*) vocal magnification (augmenting the number of times the LDCs "speak" in the UNFCCC by multiplying coalition memberships) and (*b*) opposition avoidance (eschewing controversial forms of talk in favor of consensual ones)—and two discursive strategies: (*c*) moral maneuvering (transforming identities of vulnerability from passive victims of climate impacts to injured parties) and

[7] Mische emphasizes that the ways in which people talk to each other influence the types of projects, relations, and repertoires of action they are able to form. "Some kinds of talk facilitate purposeful thinking through of problems and possibilities, helping people solve organizational dilemmas and construct new understandings of their pasts and futures. Other kinds of talk close down such discussion, or wrap it in existing ideological or conventional templates. Likewise, some kinds of talk are better able to reach across divergent experiences and interests, while others are more defensive and competitive, building boundaries rather than bridges" (Mische 2008, p. 40). We also think the way delegates in multilateral negotiations talk to each other facilitate different kinds of collaboration, problem resolution, or obstruction, and these ways, or styles, of talk can be linked to the outcomes of negotiations.

(*d*) pragmatic reversals (purchasing political capital by adjusting stated preferences). We argue that the interaction of these social and symbolic mechanisms of deliberation assist marginal actors in getting their concerns "recognized" within the negotiation agenda (Sending 2017) and seeing some of these concerns codified as legitimate international scripts for climate action.

Levels of Multilateral Agency

In considering how relational and discursive practices might influence the outcomes of negotiations, we distinguish among three levels of multilateral agency: (1) voice, (2) agenda setting, and (3) inscription. For our analysis, we define voice—often considered the most basic form of political agency (Hirschman 1970)—as speaking out in a multilateral forum. In theory, under typical UN convention rules, there are no restrictions on which countries can speak within intergovernmental negotiations; voice is distributed equally. Studies show, however, that even when poor and peripheral countries prove to be diligent attendees at multilateral meetings, they are frequently silent participants (Block-Lieb and Halliday 2017; Falzon 2023).[8] Increased outspokenness would represent an increase in our first level of multilateral agency.

Agenda setting, meanwhile, corresponds to what Lukes called "non-decision-making power," or "control over . . . the ways in which potential issues are kept out of the political process" (1974, p. 25). This level of agency can be understood as the ability to set the parameters of discussion for other actors, an ability that "is necessarily biased to the advantage of some and the disadvantage of others" (Cobb and Elder 1971, p. 905). Having one's concerns become matters of concern for other actors is an important step up in influence from voice. It is the difference between being permitted to speak and being heard. Moreover, it implies being recognized as politically relevant (Ulbig 2008; Sending 2017; Adler-Nissen and Zarakol 2021).[9] To the extent that

[8] Block-Lieb and Halliday (2017) speculate on numerous explanations for this empirical finding, suggesting that (1) delegates may approach international meetings in an explicitly educational mode, as a means of learning about the state of play of technical issues for which the country has not defined its preferences, (2) meetings may inform country delegates who participate primarily about the kinds of legislation they should avoid drafting at home (in order not to be out of step with the rest of the world polity), (3) attendance might play a primary function of socializing poorer country delegates into the circuits of international diplomacy, and finally, (4) some delegates may attend these meetings as a form of status signaling to their compatriots back home (i.e., what Block-Lieb and Halliday call a form of "UN tourism").

[9] A fruitful line of scholarship on diplomacy considers that "the very engine behind the construction and maintenance of authority [in international relations] is actors' constant search for recognition within institutional contexts that are always, already hierarchically structured" (Sending 2017, p. 317). "Deference," as Sending writes, "is produced by

other actors begin talking about topics raised by the LDCs, we consider this an increase in ability to set the agenda.

Finally, with regard to inscription, we mean the capacity of actors not just to influence the calendar of discussion but to embed the issues that matter to them into more durable diplomatic objects (e.g., into the sentences and paragraphs of official decision documents).[10] Scholars of diplomacy have been giving increasing attention to the activity of inscription, "pen-holding," and the editing of the text as a specific form of agency within multilateral talks (Riles 1998; Biniaz 2016; Pouliot 2016*a*; Adler-Nissen and Drieschova 2019). Within the UNFCCC process, the capacity of country delegates to influence final negotiation texts suggests that other countries are persuaded that these inscriptions are legitimate and must be approved. Turning propositions of action that arise in the course of deliberation into official inscriptions is a measure of this third form of multilateral agency.[11]

In accounting for the examples of inscription that we introduced at the start of this article (the institutionalization of discussion around loss and damages and the modification of the global temperature target to 1.5°C), we are interested not only in how these outcomes become composed and codified within decision texts of the UNFCCC but also in how they steer the behavior

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subordinate actors searching for recognition within parameters not of their choosing" (p. 317). By bringing new topics to the agenda, particularly topics that more powerful actors initially do not want to discuss, we show how marginal countries partially move out from the shadow of deference, thereby altering the makeup of multilateral authority in the UNFCCC.

[10] We chose the word "inscription" to capture this agency, echoing approaches from the social studies of science, which have long identified the importance of inscriptions and inscriptive devices in the construction and maintenance of scientific authority (Latour and Woolgar 1979; Latour 1986, 2005). As Latour emphasizes, inscription (in the laboratory setting) is both a process and product whose impacts depend on the networks that maintain and diffuse them. Yet, the effects of scientific inscription are not always predictable because other scientists may mobilize such traces, texts, and imagery in ways that do not correspond to the intent of the original author. This contingency and indeterminacy of inscriptions echoes our analysis of the uncertain influence that diplomatic texts have even after they are adopted.

[11] We might ask whether inscription constitutes a form of persuasion or might be described as something else, such as recognition, compromise, expediency, or merely cooptation. For instance, what harm is there in including textual reference to a party's pet issues if, by doing so, you get much more consequential issues of your own adopted? Or even better, if a reference neither compels nor constrains specific actions, why not appease another party by codifying a symbolic position? These distinctions are not unimportant, but for this article, we lean toward a capacious meaning of persuasion. In other words, if actors manage to inscribe their issues of concern into official diplomatic documents, we assume adoption of the text implies that other parties were, at some level, persuaded, i.e., "urged successfully" to do so. See *Oxford English Dictionary Online*, s.v. "persuade (*v.*),"; accessed January 14, 2023, https://www.oed.com/view/Entry/141561).

of actors beyond the arena of climate negotiations. World society literature usually anticipates high rates of "decoupling" between the adoption of institutional scripts and their actual diffusion and implementation (Bromley and Powell 2012). However, some studies have shown how the adoption of institutional models, even when loosely coupled, can still create powerful constraints on the actions of state and nonstate actors (Schofer and Hironaka 2005; Shorette et al. 2017). In providing additional analysis of the circulation of marginal scripts, we show how the LDCs' textual gains translate into traceable political effects.

Interpreting Interactive Political Traces

Before turning to the specifics of our case, we want to emphasize a last point about our conceptual framework. We consider the UNFCCC, with its specific rules governing multilateral speech, to be a communicative space in which different modes of talk are formed and sustained through their joint interaction with the institutional environment (Mische 2003). As such, if we want to identify emergent configurations in multilateral agency we must track how both things—modes of talk and the institutional environment—change over time. Our analytical task, in other words, is to tease out and interpret how different sociocultural practices of deliberation intersect with the emergence of specific institutional scripts. We do this by leveraging recent advances in the computational study of political discourse.

Over the past decade, cultural sociologists have taken a keen interest in how political rationalities become encoded in textual objects (Breiger 2004; DiMaggio 2011). Documents produced by political and administrative actors at regular intervals, such as policy briefs (Miller 2013; Shim, Park, and Wilding 2015), bureaucratic reports (Mohr et al. 2013; Moretti and Pestre 2015), and speeches (Rule, Cointet, and Bearman 2015; Kentikelenis and Voeten 2021), permit scholars to identify evolutions in the logics of modern governance. While much of this research has relied on written documents (Mohr and Bogdanov 2013; Mische 2014; Vasi et al. 2015), a growing group of cultural scholars is turning toward the computational analysis of interactive political traces (e.g., Schoots et al. 2020). Examples from this work include the use of roll call data to identify the creation of protopolitical parties at the 1787 US Constitutional Convention (Slez and Martin 2007), analysis of the book-borrowing practices of different networks of revolutionary-era Americans as a means for indexing the social foundations of emergent political affiliations (Hoffman 2018), and two recent studies that rely on verbatim transcripts of speeches made, respectively, during political proceedings of the first French National Assembly (Barron et al. 2018) and the Weimar Republic (Fuhse et al. 2020), to demonstrate how innovation in

political language is coconstitutive of ideological stances within parliamentary settings.[12]

These studies all claim, to one degree or another, that interactions between social networks (relational ties between delegates or artisans) and cultural forms (roll call, books, and discursive idioms) shape institutional outcomes (the emergence of political parties). Such empirical examples echo the theoretical arguments of Emirbayer and Goodwin that "all historical processes," including the production and diffusion of institutional scripts, "are structured at least in part by cultural and political discourses, as well as by networks of social interaction" (1994, p. 1443). Scripts, in other words, are not floating out there in some world cultural ether but arise from the "capacity of socially embedded actors to appropriate, reproduce, and potentially, to innovate upon received cultural categories and conditions of action by their personal and collective ideals, interests, and commitments" (p. 1443). Our concept of deliberative styles rests on a similar understanding of the reciprocal relationship between social and symbolic orders. By combining textual analysis with approaches from the sociology of IOs, this article provides a grounded interpretation of how these orders mutually format institutional scripts in the context of international climate politics, creating a subtle but impactful multilateralism of the marginal.

THE CONFERENCE OF PARTIES

The UNFCCC represents one of the world's largest ongoing efforts at international political cooperation. Launched in 1992 at the Rio Earth Summit, the convention held its first conference of parties (COP) three years later in Berlin. Hosted every year by a different country, the COPs have become megasummits attended by hundreds of national delegates from every UN member country, as well as thousands of participants from civil society, industry, and scientific groups, who assist from the sidelines. Over the course of two weeks, member states (these are the "parties") try and hash out cooperative policies for solving the climate crisis, which get enshrined in COP decisions or, more rarely, in new treaty text. Even though the COPs have resulted in neither an effective framework for greenhouse gas emissions reductions nor the creation of an IO empowered to broker such reductions (along the lines of the WTO or the WHO), they have nonetheless served as fertile grounds for building consensus about the problem of climate change

[12] There are also noncomputational examples of analyses that link in situ conversational practices occurring within a political setting to unfolding forms of political action. Gibson's (2012) magisterial study of small group national security deliberations comes to mind.

and its potential remedies.[13] As a result, they are a promising site to study international relations in action, where the exercise of multilateral influence (e.g., the ability to shape the multilateral agenda and its outcomes) is observable in the political give-and-take between delegates at the convention's annual meetings (Hughes et al. 2021).

As an instance of multilateral deliberation, the COPs embody the United Nations' universalistic approach to global problem solving, emphasizing procedural equality, transparency, a commitment to technical expertise, and a strong inclination toward political consensus (Yamin and Depledge 2004; Campbell et al. 2014).[14] While ostensibly participating in talks to prevent "dangerous anthropogenic climate change," each delegation also seeks to secure an agreement that best fits its nation's interests. These preferences are driven by a complex and evolving set of material, ideological, scientific, and moral understandings of each country's specific responsibility for, and vulnerability to, the climate problem. But negotiations, as numerous scholars have pointed out, are also laced with asymmetries of power between economically unequal nation-states. These asymmetries create significant opportunities for powerful countries to subvert the independence of poorer countries' policy preferences (Kim and Russett 1996; Voeten 2000; Roberts and Parks 2006).[15]

Over the last couple decades, a voluminous body of social science research has emerged concerning the problem of governing global climate change (Fisher 2004; Keohane and Victor 2011; Bulkeley and Newell 2015; Jordan et al. 2015). Within sociology, much of the scholarly attention has been on nondiplomatic aspects of the climate problem (e.g., Dunlap and Brulle 2015). This has included research into social factors influencing the adoption of emissions reduction and clean energy policies at the local and

[13] The creation of a climate-specific IO is the focus of a recent science fiction book by the author Kim Stanley Robinson (2020), who proposes exactly such an entity, called the Ministry for the Future (also the title of his book). Set in 2040, the ministry is an executive body under the UNFCCC, with a sizable annual budget ($60 billion) and a modest staff tasked with pushing countries to implement the 2015 Paris Agreement. The fact that this thought experiment plays out as the premise of a work of science fiction points to how far away we are from seeing the creation of such a climate-focused IO.

[14] Theoretically, since the UNFCCC never formalized its voting procedures (due to resistance primarily from oil producing members), a single dissenting voice can block adoption of COP texts and decisions (Barnett 2008). In practice, COP presidents (frequently ministers from hosting countries) have exercised workarounds in moments of extreme contention.

[15] As an example of these asymmetries, the Wikileaks Diplomatic Cables show the United States leveraging future development aid in an effort to persuade Prime Minister Meles Zenawi of Ethiopia, and the governments of the Maldives, Bolivia, and Ecuador, to support the US position on the 2009 Copenhagen Accords (e.g., Carrington 2010; Ciplet et al. 2015, pp. 87–88).

national levels (McCright and Dunlap 2003; Vasi 2007; Dietz et al. 2009; Sine and Lee 2009; Grant and Vasi 2017; York and McGee 2017), the institutional organization of climate denialism in the United States (Brulle 2014; Farrell 2016), the underlying relationship of climate change to economic logics of growth (Knight and Schor 2014; Jorgenson et al. 2019), and the growing inequity of climate-driven vulnerabilities around the world (Harlan et al. 2015; Pellow 2017; Elliott 2018; Gray 2021). Diplomacy factors so little into this literature that in two recent reviews of sociological scholarship on climate change, the UNFCCC negotiations do not even receive a single mention (Dietz et al. 2020; Klinenberg, Araos, and Koslov 2020).[16] Without detracting at all from the existing research (the scale of the climate crisis requires many angles of analysis) our article helps fill this lack of sociological attention to climate diplomacy by bringing perspectives of institutionalism and bottom-up cultural innovation to bear on questions of agency and outcomes within the arena of international negotiations.

DATA AND METHODS

Reading Textual Traces of Interaction

To detect different scales of symbolic and social relations at work in the negotiations, we combine unsupervised text-analysis techniques along with close readings of specific moments in the UNFCCC. To make sense of the changing role of the LDCs, we shuttled back and forth between prior theory and inductive exploration, a process very much in line with abductive approaches to data analysis that is well adapted to computational methods (McFarland, Lewis, and Goldberg 2016; Karell and Freedman 2019; Brandt and Timmermans 2021). Our core data consist of a unique textual record called the Earth Negotiations Bulletin (ENB) that reports on negotiations between parties to the UNFCCC. Run by a nonprofit group called the International Institute for Sustainable Development (IISD), the ENB enlists volunteers to attend the COPs and record the interactions between countries during instances of official negotiation. Since multiple negotiation topics may be addressed simultaneously, ENB volunteers may be in various

[16] The major exception to this observation is the ongoing and extremely insightful work of a group of sociologists who study international climate relations from a critical, cultural-Marxist perspective. Assessing existing multilateral arrangements as "hegemonic," this group (who also frequently participates in the COPs) sees the negotiations as essentially perpetuating current forms of oppression and dominance between countries and populations of the Global North and Global South (Roberts and Parks 2006; Ciplet et al. 2015; Ciplet and Roberts 2017; Falzon 2023). Although we do not partake in the same Gramscian analysis in this article, our underlying argument is certainly not opposed to such a reading.

negotiation rooms simultaneously.[17] The organization uses a strict reporting format, codified in a 70-page manual and style guide, that strives to remove bias from its volunteers' reporting process.[18] The cumulative effort, with delegates taking turns speaking and responding to each other about specific topics of the negotiations, creates a highly structured document that resembles the proceedings of a court hearing or the minutes of a board meeting, as seen in this example from COP4: "On sinks in the CDM, GUATEMALA, opposed by TUVALU and GREECE, supported their inclusion. TANZANIA opposed inclusion of sinks at this time, citing issues of permanence, leakage and sovereignty. THAILAND said including sinks in the CDM should not be permitted until scientific uncertainties have been resolved. On nuclear energy in the CDM, GREECE and TUVALU opposed inclusion" (ENB, Buenos Aires 1998).

The daily summaries, roughly two to four pages of single-spaced text, are distributed each morning at physical kiosks in the halls of the conference venues as well as online. The summaries serve as the de facto newsletter of the COP and are read by participants and distant observers alike. Since there are no official minutes of the negotiation proceedings, the exchanges captured in the ENB provide the most complete textual record of the UN process.

Interactive Unit of Analysis

Using the bulletins, we limit our analysis of interactions between national delegates to include only the open moments of negotiation, excluding all closed sessions to which ENB reporters do not have access.[19] Obviously, a great deal

[17] Volunteers are often academics, jurists, PhD students, and other civil society partners. The ENB was created in response to requests by civil society groups for greater transparency in UN-sponsored negotiations. Nonstate actor participation in the actual deliberations is severely restricted. As a result, the United Nations contracted with IISD to provide daily summaries of these events. The UNFCCC negotiations are technically called the "Earth Negotiations Bulletin Volume 12" (other volumes cover other UN-sponsored negotiations). The IISD's archive of all COP meetings, "Earth Negotiations Bulletin Volume 12: UN Framework Convention on Climate Change," is available at https://enb.iisd.org/negotiations/un-framework-convention-climate-change-unfccc. It is cited henceforth as "ENB" followed by a location and year of the documented meeting (e.g., "ENB, Buenos Aires 1998").

[18] ENB writing teams consist of roughly 10 active writers per COP, including a manager and team leaders. Their manual provides rigorous formatting rules and guidelines on everything from best practices in covering opening sessions of the COPs, choosing topic headings, avoiding adjectives, and sticking to an approved list of verbs to help minimize suggestive or ambiguous language, which might suggest partiality on the part of the writer.

[19] For example, when a negotiation track reaches a particularly sticky impasse between delegates, the presiding chair of the negotiations will often call for a smaller group of countries to work through their disagreements via a "contact group," "informal informals,"

of negotiating occurs outside official contexts. In their ethnography of multilateral negotiations at the United Nations Commission on International Trade Law, for instance, Block-Lieb and Halliday (2017) document the importance of informal moments of conversation, such as dinners, for breaking through policy logjams (see also Falzon 2023). As others have noted, this "backstage" of the discussions becomes particularly important for calibrating expectations between country representatives outside the glare of public scrutiny (Adler-Nissen 2015). However, by sticking to the negotiation's "frontstage," we are able nonetheless to develop a detailed analysis of how the preoccupations of parties shift over decades of negotiation and how these shifts are linked to changes in the way parties speak and the types of political associations they make with other UNFCCC delegations.

The smallest unit of interaction captured in the ENB is contained at the level of single sentences. Taking the above example from the Buenos Aires COP, we see that Guatemala's support for including (carbon) sinks in the CDMs (clean development mechanisms) is opposed by Tuvalu and Greece. In the subsequent exchange, Tanzania and Thailand, appearing alone in each sentence, take up direct and conditional positions of opposition. This example highlights that while the ENB text is highly structured, the variety and complexity of its syntax make it computationally challenging to model the simultaneous linkages between actors and ideas at the sentence level (Basov, Breiger, and Hellsten 2020; see also Emirbayer and Goodwin 1994). Sticking to single sentences risks losing other forms of relevant relational information that precedes or follows individual sentences in the turn-taking sequences of negotiation (Ruiz, Plancq, and Poibeau 2016).

Thankfully, the ENB volunteers operate under the logic of capturing and packaging coherent sequences of multilateral interaction into synthetic paragraphs. This justifies treating the paragraphs as meaningful units of communication between countries. Starting our analysis at the level of paragraphs frees up the need to deploy sophisticated language parsing tools, giving us a license to pursue more "low-tech" text analysis options (Breiger, Wagner-Pacifici, and Mohr 2018). Through this approach, we posit a model of the negotiations in which meaning is built on what was communicated in previous rounds of interaction (Slez and Martin 2007). Even though the ENB presents an incredibly simplified version of multilateral deliberation, we are nonetheless able to use natural language processing to say something about global patterns of interaction while still respecting that our textual source formulates the negotiations as "X proposes Y. Z disagrees because of W and instead suggests V." These data features allow us to simultaneously capture the evolution of general topics of deliberation along with the discursive moves

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and other back-channel processes of deliberation. In many instances, ENB volunteers are not permitted to attend or record these sessions.

by which actors embed themselves in the discussion and succeed in getting others to discuss their issues of concern.[20]

Finally, we supplement these in situ discursive data with readings of the actual COP decision and treaty texts. Decisions and treaties are the final diplomatic documents that parties adopt, more or less via consensus, at the end of each COP. Decision texts enshrine the current state of agreement (or disagreement) and set the stage for future rounds of negotiations, whereas treaty texts are intended to be binding international agreements. Apart from the original UNFCCC treaty itself, there have been two additional treaties created under the UNFCCC: these are the Kyoto Protocol (1997) and the Paris Agreement (2015). Otherwise, the outcomes of other COPs are all considered "decisions." Neither type of document encodes social interactions, but they allow us to link longer-term shifts in the relational dynamics and discursive objects populating the talks with the official "scripts" that result from these interactions.

Preprocessing

For the current study, our interest was primarily to explain how the LDCs succeeded in advancing COP outcomes that overcame active resistance (or nonendorsement) by more dominant members of the negotiations. We posit that this is because the LDCs' ability to exercise agency changes within the negotiation, partly because of their negotiation techniques. This change, which we notice occurring around 2009, is traceable through textual data on diplomatic interactions. To give us thorough coverage of this period, we assembled the ENB daily summary reports for COPs held between 1995 and 2016. We then reviewed the entire corpus manually and excluded paragraphs that did not capture moments of real-time negotiation between national delegates.[21] By limiting ourselves to sections of the summaries where actual interaction occurred, we stayed as close as possible to the issues raised and debated by delegates themselves (see the online supplement for further details on data processing).

[20] While the ENB has numerous textual qualities that make it an extremely productive corpus for studying longitudinal, sociosemantic diplomatic relations, it unfortunately lacks the rhetorical sophistication of verbatim, vocal interaction. As a result, our conceptual category of "style" is necessarily a more bounded category than it would be if we had full access to the actual subtleties of language used by negotiating parties in the heat of deliberation (notwithstanding the highly formalized language of diplomatic speak).

[21] These ENB paragraphs include opening preambles to each COP summarizing the previous year's results, sections within the daily summaries covering the organization and scheduling of events within the conference at hand, and closing remarks made in the final daily summary on planning and logistics for the following year's COP.

After cleaning and consolidating our corpus, we indexed social and symbolic entities separately. First, we identified and classed the speaking agents of the negotiations using a predefined list of countries, country coalitions, and nonstate actors (e.g., NGOs, IPCC, etc.). Then, in a second round, we subjected paragraphs to a series of classic natural language processing manipulations, such as removing stop words and stemming nouns, verbs, and adjectives (i.e., reducing words to their root form). These two steps result in a relational matrix of co-occurrences connecting social and semantic entities across 8,948 paragraphs, representing 22 years of diplomatic interaction.[22] These operations are demonstrated in figure 1, using our sample paragraph from the Buenos Aires COP.

These processed data serve as the source input for further modeling that we do to detect (1) relevant turning points in the trajectory of climate negotiations, (2) the salient macrotopics of the talks, (3) subsequent shifts in actors' discursive participation (voice), and (4) the links between this participation and what other actors talk about (the agenda). Finally, connecting the LDC's ability to speak out and set the agenda with more fine-scaled readings of these moments of interaction allows us to (5) account for these countries' capacity to get a version of their interests included in the final texts of different COPs (inscription). Employing this ensemble of techniques gives us a "scalar reading" (Moretti 2013; Breiger et al. 2018) of the negotiations, which reveals multilateral deliberation as interposed sets of sociosemantic processes in which actors can skillfully intervene, regardless of their material position in the global pecking order (Gupta 2000; Pouliot 2016*b*). Since the outputs from one scale of "reading" become inputs for the following scale, we present our results in the next section in tandem with the descriptions of the techniques used to generate them.

SOCIOSEMANTIC DYNAMICS IN THE UNFCCC, 1995–2016

Identifying the Temporal Structure of the Negotiations

Our analysis of multilateral political dynamics focuses on the ability of subordinate actors, or coalitions of subordinate actors, to assert their voice and, in so doing, participate in structuring the agenda and final agreements of critical diplomatic negotiations. We first sought to identify whether the presence of the LDCs in the ENB changes over our selected period. An initial way to measure such change is by evaluating the LDCs' semantic appearances in our corpus. Before 2009, 72% of textual references to the LDCs are as an object of the discussions (e.g., "the LDCs deserve our help on y"). After 2009,

[22] The full unprocessed ENB vol. 12 corpus used for our analysis is available at https://doi.org/10.7910/DVN/SKPQ5Z.

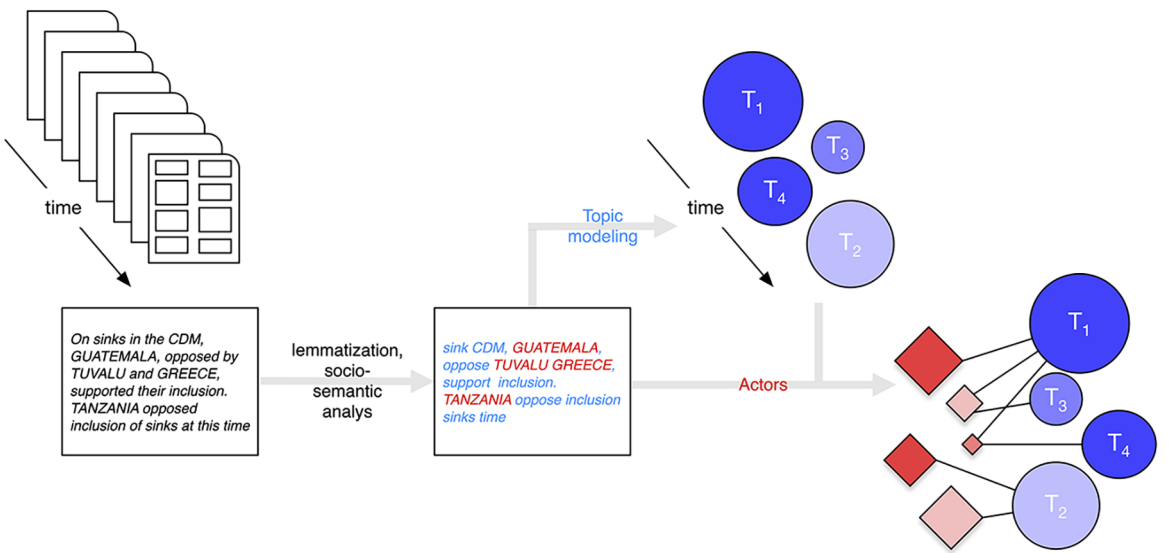

FIG. 1.—Diagram of textual data processing

this ratio is reversed: 77% of the group's appearances in the ENB are as a subject in the discussions (e.g., "the LDCs called for x to happen"). In other words, the most marginal countries go from being a topic of others' conversation to being recognized agents of multilateral talks (Sending 2017; Adler-Nissen and Zarakol 2021). To make sense of this reversal, we need to assess how this shift in status stacks up against broader evolutions in the UNFCCC conversation. To what extent does 2009 represent an institution-wide inflection or just a shift for the actors of particular interest to us?

Computational methods, it turns out, provide a powerful tool for detecting historical "turning points" within textual corpora (Danescu-Niculescu-Mizil et al. 2013; Bearman 2015). By indexing variation in social (actors) and semantic (terms) content, we used the ENB to inductively generate meaningful sequences of discursive and relational continuity in the UNFCCC. First, we segmented and organized all the extracted terms and actors from our corpus into annual data bins. We then applied statistical clustering methods to simultaneously optimize across two data features: the yearly homogeneity of terms and actors between adjacent bins and the discrepancy of these bins when aggregated into various periods (Rule et al. 2015). This allowed us to robustly parse temporal sequences in the UNFCCC using year-to-year turnover in the sociosemantic composition of the negotiations. Our results reveal three distinct periods of conversational coherence in the UNFCCC: 1995–98, 1999–2008, and 2009–16. This periodization serves as a temporal frame for our subsequent computational analyses below.[23]

Identifying the Topics of the Discussion

Before we can determine who is speaking about what, and when, we first need to identify the discursive content of the negotiations. To do this, we fed our ENB corpus into a structured topic modeling (STM). STM is part of a prominent family of text analysis techniques that exploit the tendency of words to co-occur within and across documents. These methods aggregate repeatedly associated clusters of terms, which are then hypothesized to represent common "topics" found in a textual corpus (Blei 2012; Grimmer and Stewart 2013). The number of topics, designated as K, is set before modeling. This choice is often based on a combination of statistical tests and the researchers' judgment regarding the meaningfulness of topics. We settled on 30 topics representing the core categories of conversation occupying the UNFCCC agenda

[23] The results of our periodization are broadly consistent with numerous qualitative analyses that divide the negotiations into temporally different "eras" (Huq and Toulmin 2006), "phases" (Ciplet and Roberts 2017), "regimes" (Aykut and Dahan 2015), and "rationalities" (Bäckstrand and Lövbrand 2019). For more details on our correlation methods and the differences between our quantitative periodization and previous qualitative accounts, see the online supplement.

Topic	Label	Percent	Terms
26	Climate Finance, Loss & Damage (S)	4,3%	damag, financ, loss, cbdr, billion, mrv, african, redd, market, goal
20	Poverty & Sustainability (S)	4,0%	climat, chang, indigen, peopl, world, gender, local, food, poverti, sustain
10	Legally-Binding Instrument (S)	3,5%	ratif, kyoto, commit, bind, instrument, protocol, amend, oblig, regim
23	Differentiated Responsibility (S)	3,5%	countri, develop, differenti, principl, approach, mitig, least, respons, nama, histor
17	SBSTA & Aviation/Maritime Emissions (S)	3,4%	sbsta, aviat, vice-chair, bunker, icao, imo, ship, maritim, plume, fuel,
28	Energy Transition & Economic Growth (S)	3,3%	concentr, energi, consumpt, reduc, renew, econom, industri, growth, environ, stabil
24	National Communications (S)	3,3%	communic, gef, non-annex, guidelin, nation, inventori, annex, cge, ldc, compil
12	Compliance & Enforcement (S)	2,9%	articl, complianc, protocol, advers, branch, pms, aij, enforc, effect, jwg
3	Voluntary Regime (S)	2,8%	pari, indc, apa, cma, scf, ndcs, co-facilit, lima, wim, lmdcs
14	Shared Vision (S)	2,7%	awg-lca, vision, awg-kp, outcom, copenhagen, bali, cancun, form, track, move
8	Adaptation to Climate Impacts (S)	2,7%	adapt, programm, research, impact, observ, measur, nwp, systemat, gcos, respons
19	Emissions Accounting System (S)	2,7%	qelro, option, aaus, surplus, flexibl, period, reduct, number, carryov, quantifi
29	Tech. Transfer & Capacity Building (S)	2,4%	technolog, transfer, build, capacity-build, egtt, capac, framework, intellectu, strateg, tec
4	Adaptation Funding (S)	2,3%	fund, committe, adapt, board, arrang, entiti, gcf, truste, jisc, oper
7	Enhanced Action (S)	2,2%	adp, workstream, awg, pre-, ambit, durban, platform, bridg, doha, dialogu
13	LULUCF & Sinks (S)	2,2%	lulucf, forest, sink, corridor, definit, gpg, harvest, land-us, hwp, wood
2	CDM & Carbon Offsets (S)	2,0%	cdm, ccs, storag, project, small-scal, cdms, standard, cer, baselin, levi
22	IPCC & Scientific Advice (S)	1,7%	unfccc, secretari, ipcc, execut, intergovernment, tar, scientif, panel, cbd, biolog
18	Drafting Process (P)	6,3%	paragraph, refer, text, bracket, delet, propos, revis, draft, decis, languag
15	Informal Consultations (P)	6,3%	contact, group, inform, consult, discuss, continu, will, consid, briefli, co-chair
25	SBI & Draft Adoption (P)	6,0%	sbi, conclus, fcccsbil, item, adopt, draft, agenda, matter, sub-item, add
27	COP Governance (P)	3,6%	presid, cop, plenari, elect, rule, cmp, offic, organiz, bureau, vote
9	Day-to-Day Schedule (P)	3,5%	saturday, met, afternoon, late, even, throughout, conven, monday, morn, tuesday
11	High-Level Segment (P)	2,4%	high-level, segment, head, declar, prime, statement, ban, ceremoni, webcast, minist
5	Technical Workshops (P)	2,1%	workshop, expert, technic, -session, paper, train, secretariat, request, relev, prepar
21	Institutional Structure (P)	2,1%	sar, cow, fccc, inc-, subsidiari, agbm, inc, perman, locat, berlin
1	COP Budget (P)	1,4%	contribut, resourc, alloc, budget, collect, adequ, avail, million, financi, special,
16	~~Verbal Positioning (D)~~	8,0%	ghostactor, support, oppos, stress, other, suggest, urg, propos, said, import
6	~~In the Corridors (D)~~	3,9%	seem, talk, arriv, meanwhil, wonder, felt, specul, worri, veteran, news
30	~~Lack of Progress (D)~~	2,8%	express, note, concern, address, lack, progress, rais, take, made, sever

FIG. 2.—Topics in the ENB volume 12: COP coverage topic outputs of the STM are organized per category (S = substantive; P = procedural; D = discarded) and ranked within each category in terms of the proportion of the corpus they occupy (summed by paragraph). Topic numbers are assigned randomly by the STM. Terms are from the FREX measure of the STM (see n. 24).

between 1995 and 2016 (see the online supplement for more information). A review of the top hundred terms associated with each topic allowed us to create shorthand labels characterizing the discussions captured by these topics (see fig. 2).[24]

To facilitate analysis, we grouped topics into two higher-order categories that we term "substantive" topics and "procedural" topics. Substantive topics constitute discussions about the underlying policy proposals for combating climate change; procedural topics involve discussions about the mechanics of the negotiations themselves (i.e., the logistics of upcoming talks, staffing and budgeting decisions for the COPs, and the organization of different post-COP workshops and meetings). Of the 30 topics identified through our STM,

[24] In crafting our labels, we reviewed terms returned from the FREX and Score metrics, often used to characterize the most relevant words composing topics in an STM. FREX ranks words that are both frequent within a topic and yet infrequent elsewhere (technically, FREX is the harmonic mean of a word's rank by probability within the topic [frequency] and rank by distribution within other topics [exclusivity]; $p(z|w = v)$). The Score is inherited from latent Dirichlet allocation analysis and seeks to achieve the perfect balance between frequency and specificity (technically, Score measures the quantity $((\beta_{\{w,k\}}(\backslash\log \beta_{\{w,k\}} - 1/K \Sigma_{\{k'\}}\backslash\log \beta_{\{w,k'\}})$ where $\beta w, k$ is the probability mass of each word w for topic k and K is the number of latent topics).

three topics fit in neither of these categories and were removed from our comparison.[25]

Of note in our categorization is that the UNFCCC negotiations involve almost as much discussion about the process of deliberation itself as they do regarding what to do about climate change (see fig. 2 for topic proportions). Yet, as indexed in the ENB, multilateral interaction is not equally distributed by topic. If we consider diplomatic interaction to be exchanges involving at least two or more countries per paragraph, we find that substantive topics capture nearly two-thirds of the interactions in the ENB. Paragraphs covering procedural topics, although equally voluminous, more often involve singular actors (frequently chairs of negotiation sessions) reporting to other delegates on the logistics of the day's discussions. For the sake of simplicity (and to stick close to the actual dynamics of deliberation), we use our categorizations to discard the procedural topics from our analysis. Thus, the 18 substantive topics we retain (see again fig. 2) represent the core policy agenda of the UNFCCC for the 22 years covered in our database.

Tracing the Evolution of the Topic Space

Next, before bringing the actors back into the picture (along with the question of influence), we combine the above components of our findings to contextualize the evolution of climate policy discussions within the negotiations. Contextualizing shifts in the substantive topics of conversation will help ground our subsequent analysis of how shifts in the context of discussions relate to changes in how the LDCs exercise their agency.[26] To better characterize the negotiations, we match our topics to our periods, highlighting the topics that solicited the most debate and interaction for each of

[25] One of these includes a topic representing a reoccurring "call-of-alarm" at the inadequacy of multilateral discussions, a highly symbolic refrain that nearly all nations utter at one time or another (topic 30). The other two (topic 6 and topic 16) were identified as artifacts of the ENB corpus itself. Topic 6 represents a specific section from the ENB summaries called "In the Corridors," where ENB writers interview individual delegates at the end of each day to get a personal (but anonymous) analysis of the progress of the negotiations. Topic 16 represents a collection of verbs that code the back-and-forth interactions between country delegates but does not link countries (whose names were removed from our STM corpus and substituted with the dummy variable "ghost actor") with any objects of discussion. Instead, this topic reflects countries' tone and posturing as they negotiate. We consider these factors later in our analysis of the mechanism of opposition avoidance, not via their appearance as a topic but through a separate sentiment analysis.

[26] As Mohr and Bogdanov (2013) argue, this kind of iterative cycle of interpretation, moving between macropatterns and close readings, is a consistent aspect of research done with computational methods. "Even when one is peering through the lens of a topic model," they write, "well informed interpretive work—hermeneutic work—is still required in order to read and interpret the meanings that operate within a textual corpus" (p. 560).

TABLE 1
NEGOTIATION PERIODS AS CHARACTERIZED BY THE DOMINANT SUBSTANTIVE TOPICS UNDER DISCUSSION (%)

Period 1: 1995–99		Period 2: 1999–2008		Period 3: 2009–16	
Energy transition and economic growth	19.0	Compliance and enforcement	12.0	Climate finance and loss and damages	13.9
Legally binding instrument	12.7	National communications	9.2	Voluntary regime (Paris)	9.5
Differentiated responsibility	9.7	SBSTA and aviation/ maritime	8.3	Poverty and sustainability	8.2
Emissions accounting system	8.2	Poverty and sustainability	7.1	Shared vision (Bali)	8.0
National communications	8.1	Adaptation	7.0	Enhanced action (Durban)	7.0
LULUCF and sinks	7.04	CDM and carbon offsets	6.9	Differentiated responsibility	6.6
		Energy transition and economic growth	6.9	Legally binding instrument	6.5
		LULUCF and sinks	6.5	SBSTA and aviation/ maritime	6.3

NOTE.—Percentages represent the amount of space occupied by each topic, per period, within the substantive topic space. Topics occupying up to two-thirds of the topic space were retained as the "dominant" topics of each period.

our periods. For ease of narration, we select only those topics that occupy, by ranked volume, the first two-thirds of the conversation space. This approach gives us an incredibly parsimonious but holistic vision of how the ideational content of international climate diplomacy has evolved since 1995 (see table 1).[27]

As our results show, each period of the negotiations is characterized by a different set of topics (with some reoccurrence). For example, in the first phase of climate talks (1995–98), delegates directed their efforts toward establishing a compulsory framework ("legally binding instrument") that would require parties to reduce their greenhouse gas emissions (i.e., the Kyoto Protocol). This included establishing criteria for who (i.e., which countries) should make reductions ("differentiated responsibility"), how countries should report these reductions ("national communications"), what kind of structure and standards should be deemed legitimate ("emissions accounting system"), and whether these standards should include emissions from land use and forestry activities ("land use, land use change, and forests," or "LULUCF and sinks"; Yamin and Depledge 2004). Parallel to this momentum around cooperative action, the period is also heavily marked by conversations about what shifting away from fossil fuels would mean for

[27] For those interested in a more complex and dynamic image of the negotiations, capturing year-on-year evolution for each of our 18 substantive topics, see the online supplement.

different countries' national growth trajectories ("energy transition and economic growth").

The second period (1999–2008) sees a significant turnover of topics. Deliberation is driven principally by concerns about how to implement the Kyoto Protocol. Despite the fact that the United States withdrew its signature from the Kyoto treaty in 2001 (which dealt a profound and ultimately fatal blow to the protocol), the rest of the developed world forged ahead, finalizing rules on emissions reporting and a mechanism to ensure that countries follow through on their targets ("compliance and enforcement"). New attention was also given to the problem of reducing "borderless" emissions arising from transnational shipping and air travel ("SBSTA and aviation/maritime"; Schroeder 2010). At the same time, a new set of conversations emerged focusing on the intersection of climate change and development ("poverty and sustainability"), including how to prepare lower-income countries for climate impacts ("adaptation") and involve these countries in nascent carbon markets ("CDM and carbon offsets").[28]

If the discursive terrain of the second period flows intuitively from decisions taken in the first (with some important exceptions related to conversations around poverty and adaptation), the third period (2009–16) represents an actual institutional "turning point" (Bearman 2015). At the Copenhagen COP in 2009, the fragile premise of the Kyoto Protocol—which proposed that only developed countries should be compelled to reduce their emissions—collapsed (Kuyper, Schroeder, and Linnér 2018). The ENB data show that some countries, including the LDCs, anticipated difficulty in Copenhagen at least two years prior. At the Bali COP of 2007, for instance, these countries promoted splitting the multilateral talks into two negotiating tracks (one focused on extending the Kyoto Protocol" and the other focused on a set of issues called "long-term cooperative action") to save the deliberation space from being completely bogged down by the fate of Kyoto.

The twin-track negotiation process, packaged as the "shared vision" of the Bali Action Plan, helped usher in a string of new policy objects ("climate finance and loss and damages") while also eventually reframing the central script of the negotiations away from a "legally binding instrument" and toward a set of "enhanced actions" (the Durban Platform of 2011) that ultimately culminate in the "voluntary regime" approach to emissions reductions enshrined in the Paris Agreement of 2015 (Bäckstrand and Lövbrand 2019). Compared to the first two periods, the third initiates a period of discursive reconfiguration that, according to our data, is accompanied by a radical

[28] The LDCs appeared for the first time as a negotiation group in 2001. While some of these latter topics reflect their participation and concerns, the group does not make much headway until the end of the second period (and continues to appear most often in the ENB as an object of others' conversations; e.g., Ciplet et al. 2015, p. 81).

realignment of the social relations structuring the climate talks. As we will see next, this 2009 moment of rhetorical and policy upheaval provides a window of opportunity for marginal countries to engage in the negotiations in a new way.

Tracking Shifts in Voice

Having mapped the semantic evolution of the negotiations, we now bring the actors back into the frame. This lets us return to our initial empirical questions about levels of multilateral agency (voice, agenda setting, and inscription). How, for instance, do temporal patterns of deliberation within the COPs reconfigure the positionality of actors (via alliances and conflicts) and promote or impinge their ability to introduce alternative framings of climate action onto the diplomatic agenda? Using a tree map graph, we fit country and coalition participation to our negotiation periods, visualizing the actors accounting for at least two-thirds of COP interventions, per period, in our database. The results (see fig. 3) also indicate a major change in the social dynamics of deliberation, particularly between the second and third periods of negotiations, which we narrativize here.

Looking at figure 3, panel *A*, we see that 27 actors (excluding the box accounting for all the "other" negotiating parties) occupy two-thirds of the discussion space in the first period. Large developed economies such as the United States and members of the European Union (EU) hold dominant positions. As the countries most expected to adopt emissions reductions (i.e., those with the most to "lose"), they are active on nearly every substantive topic of the negotiations. These are followed by a tranche of relatively more minor but still higher-income nations such as Canada, Australia, Saudi Arabia, and Russia, whose wealth is linked to extractive activities that would also be negatively affected by efforts to reduce greenhouse gas emissions. A range of middle-income countries (Philippines, Uruguay, Argentina, Iran, and Venezuela) are also present (particularly in the talks around the institutional structure of the UNFCCC), as are the large European member states, some of whom still negotiate on their own in this early period. The other significant actors are two coalitions of countries, the G-77 (with which China becomes associated after 1995) and the Alliance of Small Island States (AOSIS; Schroeder 2010).[29]

[29] The Group of 77 (G-77) is an alliance initially founded to represent the collective interests of developing countries at the 1964 UN Conference on Trade and Development. Launched by middle-income countries such as Pakistan, Indonesia, Brazil, and India, as well as numerous LDCs, the group argued for the right of developing countries to prioritize economic growth and poverty reduction over environmental policies. By the time of the UNFCCC, the group's numbers had swelled to 133 member states, and it was the default coalition for nearly all developing countries (Williams 1993). China joined as an

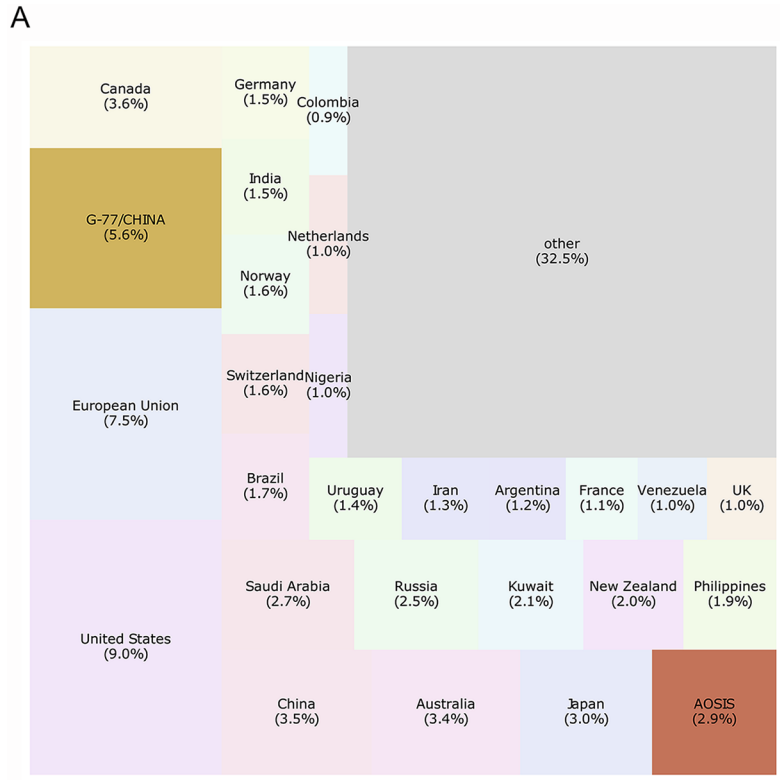

FIG. 3.—Tree map graphs of most prevalent parties to the COPs, per negotiation period: *A*, period 1, 1995–98; *B*, period 2, 1999–2008; *C*, period 3, 2009–16. The full area of each panel represents all instances of official intervention by a country or coalition within the ENB corpus (total = 13,810). Within each period, we represent those actors that account for two-thirds of those interactions, aggregating the remaining third as the box titled "other." Boxes representing coalitions are in bold.

In the second period of negotiations (see panel B), the number of significant participants shrinks from 27 to 16 actors. The US participation decreases (a drop corresponding to the election of George W. Bush and the US withdrawal from Kyoto), and the EU and the G-77/China significantly

informal member during the first COP so that the group is recorded in the ENB as the G-77/China. AOSIS was founded in 1990 to represent the interests of low-lying small island countries in the discussions leading up to the creation of the UNFCCC at the Rio Earth Summit in 1992. The group, which includes both wealthy island states (e.g., Singapore and the Bahamas) and poor (e.g., Haiti and Vanuatu), frames climate action as essential for its members' survival given their existential vulnerabilities to climate change (particularly sea level rise and extreme weather).

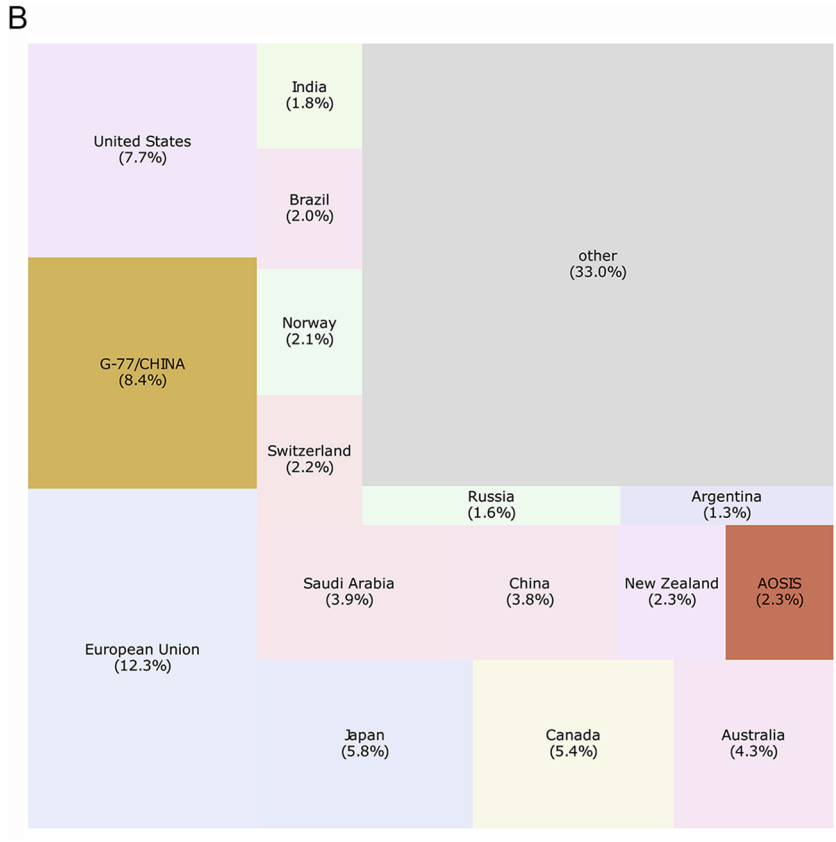

FIG. 3.—(*Continued*)

expand theirs. The dominance of the EU in this period points to their commitment to making the Kyoto Protocol work but also to the unity of its member states in speaking with one voice (Aykut and Dahan 2015). Overall, there is a great deal of relational consistency with the previous period, simply less concerted interventions made by middle-income countries.

However, beginning with Copenhagen (COP-15), the negotiations' social composition changes dramatically. Intense disagreement between negotiating parties about the future of the Kyoto Protocol threatens to derail the COP entirely (Michaelowa and Michaelowa 2012; Ciplet et al. 2015). In lieu of a collaboratively produced multilateral agreement, what emerges instead is the Copenhagen Accord. Drafted by just five countries (China, India, Brazil, South Africa, and the United States), the accord reconfigures the UNFCCC's diagram of diplomatic relations by abandoning two core principles of the negotiations: (1) that emissions reductions should be connected

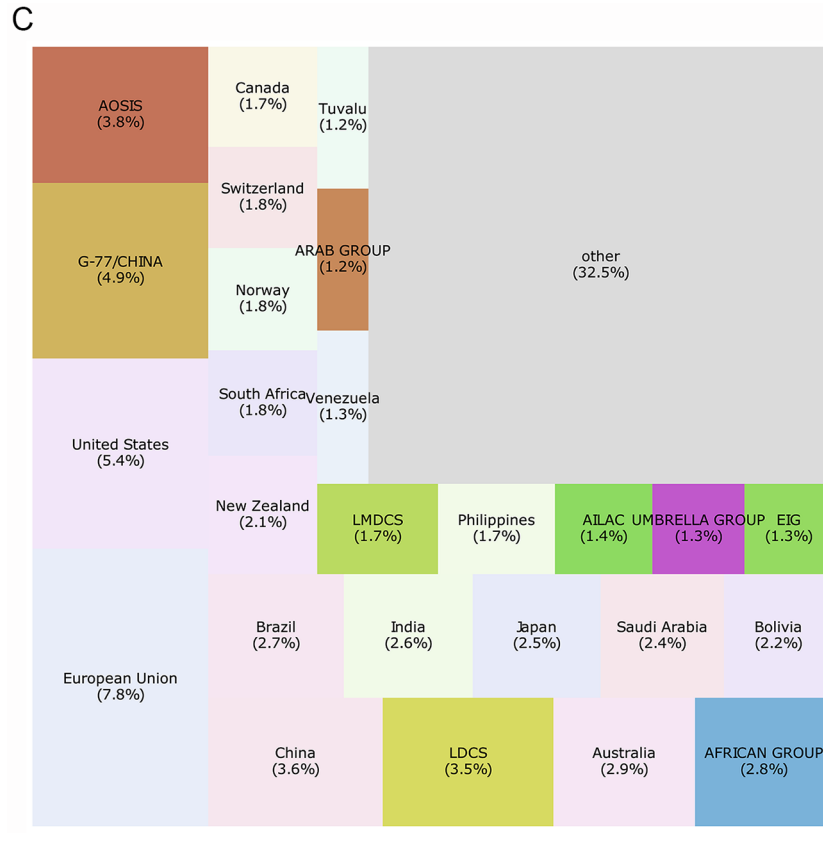

FIG. 3.— (*Continued*)

to a legally binding instrument and (2) that developing countries should be expected to act only after developed countries have made significant reductions (Bodansky 2010; Dimitrov 2010).

Before COP-15, the G-77 had been the principal negotiating bloc for all developing countries. But with the two central items of developing country solidarity seriously undermined after Copenhagen, the G-77 fractures. In the third negotiating period, the outspokenness of the G-77/China drops nearly in half as different constituents within the G-77 begin to speak via smaller, more representative negotiating groups. Interestingly, EU and US interventions in the ENB also diminish (we save our interpretation of why this might occur for a later section).

All told, nine coalitions, most newly minted after Copenhagen, are among the most active parties in the third period of the negotiations (Klöck et al.

2021; see the online supplement for details on the coalitions). The most significant shift in participation is achieved by the most marginal members of the UNFCCC, who channel their voices into two reinvigorated alliances—the coalition of LDCs and the African Group—both of which existed since the early days of the UNFCCC but were only infrequently used as vehicles of representation. Countries from these groups stop relying solely on the G-77/China and begin to assert an independent set of climate positions, magnifying their policy preferences by forming issue-specific alliances with each other and with AOSIS and the EU. In this period, the LDCs became the sixth most active member of the negotiations, and the African Group becomes the eighth—an appreciable increase in voice, our first category of multilateral agency.[30]

Actor-Topic Network: Measuring Changes in the Multilateral Agenda

While speaking out is an important and necessary first step toward gaining diplomatic influence, we are also interested in whether having greater voice influences what others talk about. To tease out how increasing voice might affect an actor's agenda-setting capacity, we combine data on the trajectory of topics and their co-occurrence with different actors to identify how changing patterns of delegate interaction influence the evolution of the UNFCCC topic space. Building on the finding that 2009 signifies a genuine political and cultural turning point in the climate talks, we visualize this new sociosemantic configuration by creating a bipartite actor-topic network that allows us to track the interaction between the ideational content of multilateral talks (the symbolic formulation of problems) and the social distribution of deliberative interventions (the social structure of the talks). A tie is built between an actor and a topic when an actor uses words to define that topic (Roth and Cointet 2010; Eckhard et al. 2023). Through this approach, we can see not only that the LDCs increase their participation but that the negotiations also begin to align in subtle ways with their particular matters of concern.

To capture this shift in agenda-setting capacity, we separate our topics into two different moments of discussion: a pre-Copenhagen moment (in which we merged topics from periods 1 and 2) and a post-Copenhagen moment. Between these two "moments," and consistent with the choices made above, we chose to visualize topics that rank in the top two-thirds of the conversations at the UNFCCC. This creates a pair of adjacent topic networks within a more extensive, two-step temporal network (see fig. 4). Onto this

[30] In some instances, these two new coalitions even argue against the interests of the most powerful members of the G-77/China, insisting, e.g., that major developing economies also reduce their emissions from fossil fuels. In previous negotiations, this position was a redline for the G-77/China (Friedman 2011).

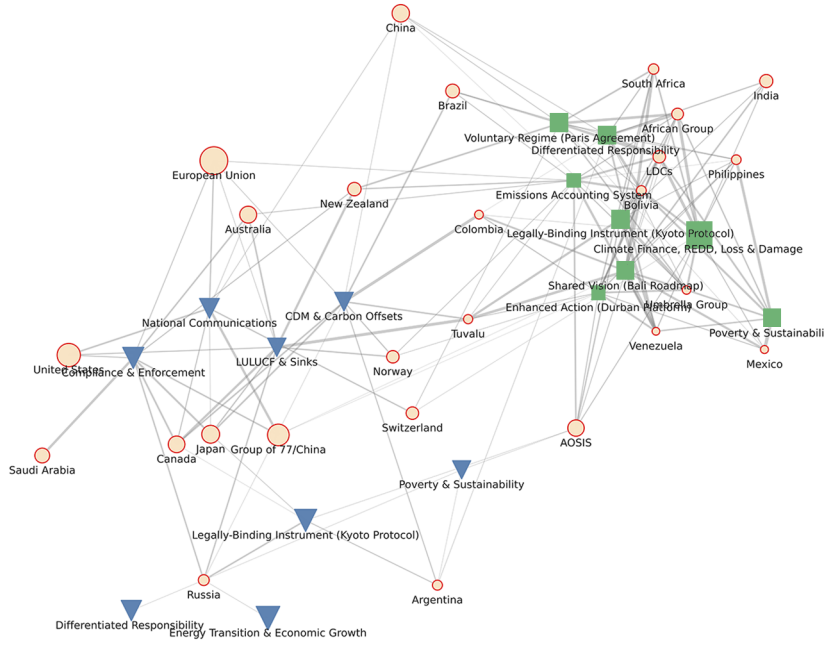

FIG. 4.—Actor-topic network of LDC positionality in the negotiations before and after Copenhagen. The most discussed topics pre-Copenhagen (*triangles*) and post-Copenhagen (*squares*) are shown; the actor nodes (*circles*) represent actors responsible for two-thirds of the deliberations, and those topics with which they are most affiliated, independent of time.

two-step network, we then project actors accounting for two-thirds of the interventions throughout the negotiations. Actors, unlike topics, are not constrained by time. We then observed the topics to which actors were most attached.[31]

The results show that in terms of their history of participation, prominent actors such as the United States, the EU, and the G-77/China are more affiliated with topics from the first and second periods (*triangular nodes*). They dominate the shape of discussions in the pre-Copenhagen period.

[31] The strength of attachment between a topic and an actor is measured independently of the number of times the actor intervenes in the corpus. It does not depend on the total share of a given topic in the conversation. The strength of a link between actor A and a topic T measures the overrepresentation of T in the discursive repertoire of A. We only preserve links in the final network when actors intervene on a topic at least 10% more often than what a random model of participation between actors and topics would predict. Also, it is essential to note that the same topic may show up twice in our overall network if it maintains its rank in the pre-Copenhagen and post-Copenhagen moments.

The LDCs and African Group, present as actors from the late 1990s and early 2000s, come into their own in the latter period, when they are firmly and centrally connected to all the principal topics of the post-Copenhagen agenda (*square nodes*). As has already been noted, the EU, the United States, and G-77 remain the most active participants in the third period but comparatively much less than in the previous periods. Some actors, such as AOSIS, China, Brazil, Norway, New Zealand, Tuvalu, and Switzerland, maintain a similar interactive presence between the two periods. Specific topics also serve as continuous points of discussion pre- and post-Copenhagen, including "differentiated responsibility," "poverty and sustainability," and "legally binding instrument," which appear on both sides of figure 4.[32]

Consistent with more qualitative accounts of the negotiations (see https://doi.org/10.7910/DVN/SKPQ5Z), figure 4 reveals that with the loosening of the G-77/China coalition at COP-15, a more diverse group of Global South voices begins to be heard within the UNFCCC (the LDCs, the African Group, Mexico, India, Bolivia, Philippines, Venezuela, and South Africa). Meanwhile, the LDCs consolidate their voice and speak out on topics that concern other actors, helping set the course of the conversation. Before Copenhagen, these countries intervened either individually or through the G-77 coalition but in a less coordinated fashion and frequently on topics populating the periphery of the talks. "Their presence in the negotiations," as one scholar has noted, "went almost unnoticed" (Betzold 2010, p. 144). Post-Copenhagen, making sense of the multilateral agenda cannot be done without accounting for the remarkable change in status of these marginal actors.

DELIBERATIVE STYLES IN ACTION: PERSUADING FROM THE PERIPHERY

We started this article with the observation that the LDCs have made some surprising gains within the UNFCCC post-Copenhagen, advancing formulations of climate action that were initially resisted by more dominant actors (e.g., Ciplet et al. 2015; Tschakert 2015; Biniaz 2016; Guillemot 2017; Falzon et al. 2022; Cointe and Guillemot 2023). These include, inter alia, codifying the issue of loss and damages (UNFCCC 2013, decision 2/CP.19; 2015*a*, art. 8) and anchoring a reference in the Paris Agreement that aligns emissions reduction efforts with the goal of keeping the rise of global

[32] One thing our choice of methods does not permit us to measure is how a topic may change internally over time. Pursuing this question would undermine the stability of our topics (thus eroding our ability to compare periods). Still, it would also open up other interesting research questions concerning the temporal variation of symbolic content within topics (i.e., how a topic may persist while its meaning may change) and the limitations of STM as a technique for measuring the evolution of culture.

mean surface temperature to 1.5°C (UNFCCC 2015*a*, art. 2/1(a)). Referring back to our three levels of multilateral agency, the ENB corpus provided us confirmation that, before getting their policy preferences "inscribed" in the above COP decisions, the LDCs' also experienced a dramatic increase in both voice and agenda-setting capacity. If the shift in multilateral agency is our empirical puzzle, we now seek to provide an explanation for how this shift occurs.

Linking the macropatterns of our computational findings to the microprocesses of deliberative interaction recorded in the ENB, we identify four sociocultural modes of interaction that, inter alia, account for the LDCs' emergence as effective multilateral agents.[33] These modes include forms of relational positioning such as (*a*) vocal magnification (i.e., augmenting instances of "speaking out" by multiplying participation in different coalitions) and (*b*) opposition avoidance (or the emphasis by LDCs to consensual forms of talk) and discursive strategies such as (*c*) moral maneuvering (by which the LDCs make a narrative shift from identifying as passive victims of climate impacts to injured parties) and (*d*) pragmatic reversals (or the purchasing of political capital by adjusting stated preferences).

Taken together, these four modes constitute a deliberative style. No mode alone explains how marginal actors become more prominent in UNFCCC discussions; instead, it is their collective effects that provide at least a partial answer as to why other parties begin to recognize marginal countries as legitimate multilateral agents (Sending 2017). We call the LDCs' overall deliberative style "persuading from the periphery" and posit that it differs from the styles deployed by other actors in the negotiations.[34] Our subsequent analysis

[33] Our discussion here sticks mainly to the two principal successes of the LDCs' negotiating strategies post-Copenhagen, i.e., the revised temperature 1.5°C target and the institutionalization of "loss and damages" within the UNFCCC. It is worth noting, however, that with regard to policy, the LDCs achieve numerous gains after 2009. These include the creation of the Green Climate Fund, a mechanism for funding mitigation and adaptation efforts in developing countries over which poor countries have significantly more control than previous funding mechanisms (Antimiani et al. 2017; Kalinowski 2020); an elevation of the status of adaptation in the negotiations through the creation of an Adaptation Committee (Abeysinghe, Craft, and Tenzing 2016); as well as finally establishing a more robust technology transfer mechanism within the UNFCCC through the Technology Executive Committee and Climate Technology Center and Network (Grub 2011). Each of these outcomes could be analyzed with our concept of deliberative styles.

[34] A study of other countries' deliberative styles falls outside the scope of this particular article, but we believe it could be done. Observations made during our data collection point to the possibility of developing a more systematic mapping of such styles. For instance, certain countries, such as Saudi Arabia, Kuwait, or India, frequently engage in oppositional interactions with other parties (they solicit opposition, rather than avoid it). We might attribute this to an "obstructionist" style of deliberation (Depledge 2008). Regarding moral stances, the United States, Australia, and New Zealand (especially in

of persuading from the periphery draws on emblematic instances within the negotiations concerning our two principal scripts. Additionally, we leverage our periodization to compare and highlight variation in the LDCs' deliberative style before and after the 2009 COP at Copenhagen.[35]

Forms of Relational Positioning

Vocal magnification.—Between our periods, the LDCs manage to distribute their voices differently by activating new relational structures in the negotiations. Before 2009, we observe empirically that the topics on which LDCs speak out, independent of their association with the G-77/China, do not gain much traction among other parties. These include discussions on commitments to "technology transfer" (topic 29) and "funding for climate adaptation" (topic 4), topics that are of crucial concern to the LDCs but that do not break into the top two-thirds of those most discussed (see table 1). None are absolute priorities for the other major negotiating parties. With the splintering of the G-77/China at Copenhagen, however, the different members of the Global South regroup into more strategically focused coalitions that assert new points of view into the negotiations (Castro and Klöck 2021).

Before Copenhagen, coalition-based communication in our textual corpus counted for roughly 12% of party interventions. Following the collapse of discussions at Copenhagen, the rate of coalition interventions doubled to 24% of all statements and interactions (even as the G-77's participation is reduced by one-third; see again fig. 3). This happens because previously inactive coalitions, as well as entirely new ones, begin speaking out. The LDCs, while already a coalition, rarely expressed themselves before Copenhagen. The same

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the early negotiations) frequently make "two-sided" statements, arguing that while developed countries should reduce emissions first, developing countries will also need to reduce emissions. In their frequent use of conditionals, they stylize equivalences between UNFCCC member states, deploying what we might call a "both/and" mode of deliberation. We also think Neumann's (2011) argument that "small and medium power countries" (Canada, Norway, South Korea, etc.) are invested in "maintaining" the international system could be tested within our corpus with regard to a "maintenance"-oriented style of deliberation. Others styles and modes could be identified.

[35] We choose the label "persuading from the periphery" because the process of deliberation is about persuading your peers, collaborators, rivals, or adversaries that your view of an issue is either the correct view or one that aligns with their interests (or at least does them no harm). By emphasizing the present participle "persuading," we want to highlight that "persuasion" is an ongoing process, prone to false starts, slippage, adjustment, and mutual modification. The strategic positioning of the LDCs (and that of all delegates) is in constant interaction with the relational, emergent, collective character of the negotiations. "Persuading from the periphery" captures the processual, "liquid" nature of multilateral authority (Sending 2017).

is true for the African Group (three-fifths of whose members also belong to the LDCs). After Copenhagen, these latter two coalitions engage in much greater coordination, effectively doubling the number of times the most economically marginal countries speak out while driving home issues of joint concern, such as the topics of the 1.5°C target and loss and damages:[36] "Nauru, for AOSIS . . . emphasized the need to limit global warming to well below 1.5°C using the 2013–15 Review as an opportunity to ensure survival. Swaziland, for the AFRICAN GROUP, highlighted that loss and damage is beyond adaptation measures, and called for ambitious mitigation targets and appropriate levels of support to developing countries. Nepal, for the LDCs, stressed . . . that the new agreement needs to incorporate the latest science and limit global average temperature increase to below 1.5°C" (ENB, Warsaw 2013).

The growth of "coalitional negotiations" plays into the strengths of the LDCs, as they can magnify or "layer" their interests through multiple coalition memberships (Weiler and Castro 2021). In the third period, this amplification provides a context by which these countries begin to make themselves heard within the UNFCCC. Post-Copenhagen, according to our empirical data, the topics with which the LDCs and the African Group are most associated occupy the first, third, fifth, and sixth most discussed topics in the negotiations (see again fig. 4). The fact that the countries succeeded in getting loss and damages inscribed in the Warsaw COP decision as well as the 1.5°C target inscribed in the Paris Agreement suggests that the pooling together of their voices around mutual issues of concern is one factor in persuading other countries to sign off on diplomatic text including these scripts.

Opposition avoidance.—A second mode of deliberation practiced by the LDCs, is the avoidance of extreme negotiating positions. Consensus is baked into the process of crafting international agreements in the UNFCCC. However, finding agreement does not preclude conflictual interactions between parties before plenary votes on final COP decisions. Engaging contentiously can be considered a style of deliberation that bears political fruit for certain multilateral actors (as our data show, oppositional countries include those with the most to lose from a transition away from fossil fuels; Weiler 2012). Analysis of topic contentiousness shows that the LDCs are systematically aligned with topics that avoid triggering deep conflict between other participants. To test opposition avoidance, we built a simple dictionary of antagonistic verbs ("oppose," "reject," "do not support") and verb phrases ("warned against," "expressed disappointment") based on how the ENB volunteers encode

[36] If we take annual interventions made by LDCs, including an aggregate of interventions from individual member countries of the LDC Group and those made in the name of the LDC and African Groups, we arrive at 36 interventions on average per COP before Copenhagen. This number leaps to 68 interventions on average per COP for the years following Copenhagen.

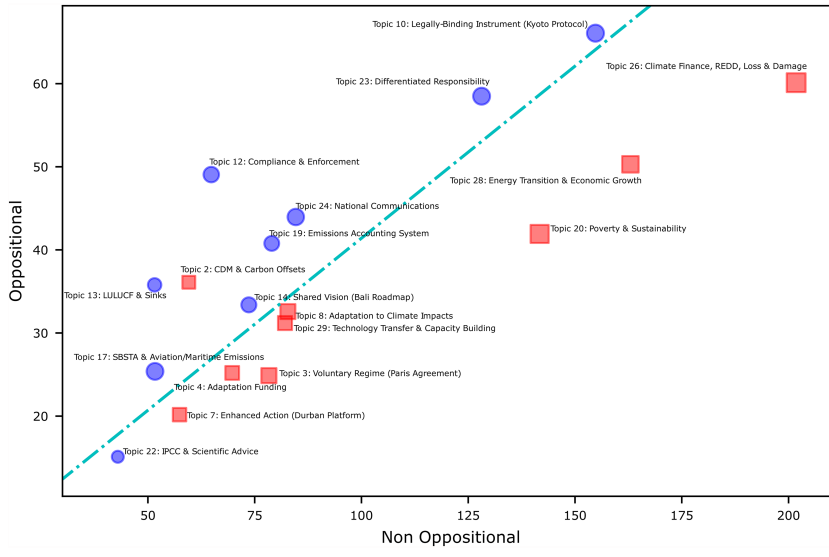

FIG. 5.—Scatterplot of topic oppositionality. Topics in squares are those for which the share of LDCs interventions is proportionally higher than the share of interventions by other countries (i.e., representing the topics with which they are most engaged).

contentious interactions, which we then correlated with our topics.[37] This gave us a measure of the "oppositionality" of topics (see fig. 5). Of the nine issues on which marginal actors are most heavily engaged over the negotiations (topics 2, 3, 4, 7, 8, 26, 28, 29, and 30), only a single topic is indexed as oppositional (topic 2).

One interpretation of this observation is that marginal actors speak out most on topics that do not impose meaningful constraints on dominant actors. As for topics that produce polarization between countries (such as the discussions around legally binding emissions reductions, compliance, emissions accounting, and differentiated responsibility), the LDCs engage in those principally through the context of the G-77/China coalition (with the exception of topic 2 on the CDM and carbon offsets, which is indeed a contentious topic). If LDCs did engage in polarizing topics, we might expect their interventions to have little impact (i.e., they are too weak for their opposition to make a difference). At the same time, because the LDCs have cultivated a nonoppositional form of deliberation, their consensual positioning may allow them to exercise a moderating influence on topics in which they do participate, thereby helping them convince different interest groupings within the negotiation network to

[37] This approach was inspired by Flores (2017) and his analysis of the interplay between anti-immigration laws and public attitudes about immigrants in Arizona, as measured using Twitter. See the online supplement for details on our dictionary and graph method.

find agreement or compromise.[38] This interpretation resonates with Schultz and Breiger's (2010) argument of how "weak culture" (i.e., persuading from the periphery) can create openings for "higher stake forms of interaction" (p. 611), such as moving from speaking out (voice) to script-writing (inscription). When, in the final period of our data, the LDCs engage consistently for the first time on the dominant topics of discussion (topics 26, 20, 7, and 3), their championing of these topics is done in the same style as their previous deliberative interventions, by mainly avoiding antagonistic and oppositional forms of talk.[39]

Forms of Strategic Discourse

Moral maneuvering.—Perhaps the most potent sociosemantic reordering that the LDCs achieve after Copenhagen is in how they talk about their own vulnerability to climate change. Their language changes from identifying themselves as passive victims of climate impacts deserving sympathy and assistance to injured parties with a right to financial compensation. As one group of scholars observes, "by leveraging the identity of vulnerability . . . low-income countries have influenced how materially rich countries have framed, and in some cases acted on, material and institutional concessions" (Ciplet et al. 2015, p. 97). More precisely, by mobilizing a particular narrative of vulnerability, a move we call "moral maneuvering," the LDCs create both solidarity among those who identify as vulnerable (Polletta and Jasper 2001; Mische 2008) and pressure on other negotiating groups who bear responsibility for producing their vulnerability.

Two examples of pre-Copenhagen moral rhetoric, taken from the Marrakech and Milan COPs, go something like this: "MALI, speaking for the LDCs, hoped that developing countries, and especially LDCs, would benefit from meaningful assistance" (ENB, Marrakech 2001). "MOROCCO, for the G-77/CHINA, said adaptation and mitigation measures will be unsuccessful if developed countries ignore the concerns and situation of vulnerable States" (ENB, Milan 2003).

[38] As has been recognized by numerous observers of the post-Copenhagen talks, an alliance between the LDC Group, AOSIS, and the EU "helped create *middle ground* and *break deadlock* during the stalled climate negotiations several times—particularly in 2011 and 2013" (Craft et al. 2021, p. 16; emphasis added).

[39] We should add that much contentious activity occurs on the outskirts of the official meeting rooms of the COP delegates. Civil society groups are highly active at COPs staging protests, marches, sit-ins, artistic performances, and other actions to increase policy makers' ambitions. These activities are frequently made in the name of the LDCs (or in conjunction with representatives from the LDCs; Hadden 2015; Smith and Howe 2015). Within the current COP negotiations, however, according to the ENB data, the LDCs do not themselves behave contentiously.

Here, marginal countries are "hoping" for "assistance" and asking that their vulnerability to climate change not be "ignored" by developed countries. As the failure of Copenhagen becomes obvious, their rhetoric changes radically. Beginning with an initiative from the small island developing states, the LDCs, and other vulnerable states frame efforts to address increasingly specific impacts from climate change as a matter of holding high-emitting countries accountable for "losses and damages" (AOSIS 2008). This discursive shift on vulnerability, rolled into broader discussions regarding climate finance and development, helps propel the topic of loss and damages to the top of the multilateral agenda. Carried forward by multiple marginal voices, this collection of action items occupies more conversation in the post-Copenhagen period than any other topic (14% of the discussion space; see table 1): "On loss and damage, AOSIS, the LDCs, AILAC, the AFRICAN GROUP and others, opposed by AUSTRALIA, emphasized that it should become a stand-alone element in the new agreement. NEW ZEALAND opposed any reinterpretation of the Warsaw decision on loss and damage. The LDCs proposed a climate change displacement coordination unit, and a mechanism to deal with slow-onset events, *including a compensation regime*" (ENB, Lima 2014; emphasis added).

As others have noted, this change in framing—based on a sense of accountability and compensation, rather than aid—taps into fundamental liberal values of the developed democracies at which it is directed (Huq, Roberts, and Fenton 2013; Calliari, Surminski, and Mysiak 2019). Moreover, the transformation of vulnerability into a story of liability and rights is a discursive maneuver that aligns the plight of the LDCs with the moral identities of the developed countries they want to hold accountable, making it normatively tricky for these countries to dismiss (e.g., Polletta and Jasper 2001). Following the Lima COP (quoted from above) loss and damages becomes codified as a separate article within the Paris Agreement (2015), intensifying its inscription within the UNFCCC and essentially overturning the efforts of more powerful countries to address the problem of irreparable climate damages as a subcomponent of adaptation planning.[40]

[40] In addition to moral framings, the LDCs are able to draw on advances in scientific knowledge regarding the future of climate change impacts, which continue to improve after Copenhagen (IPCC 2014). Maturing scientific techniques give added weight to the LDCs' call for a more robust multilateral framework for addressing vulnerability (Roberts and Huq 2015; Thompson and Otto 2015). This points to the role that epistemic resources (i.e., scientific reasoning) play in helping strengthen the multilateral arguments of weak actors, something largely in line with what traditional world society scholarship might expect. What is worth noting, however, is that it is marginal actors' translation of scientific findings into a moral script of specific vulnerability that ends up advancing the "universalistic culture" of the Intergovernmental Panel on Climate Change (IPCC) science within the UNFCCC (see also Tschakert [2015] and Cointe and Guillemot [2023] on this point with regard to 1.5°C).

Pragmatic reversals.—Finally, after Copenhagen, the LDCs also deploy a flexible strategy in asserting or holding on to previous negotiating preferences. Early on in the negotiations, developed countries (especially the United States) argue that limiting emission reductions to advanced economies (called "Annex I Parties" in the UNFCCC) would not be enough to prevent climate change. Developing countries, however, insist on distinguishing between "luxury emissions and survival emissions" (ENB, Buenos Aires 1998) and the right of less advanced economies to pursue development by whatever means available. This same debate has played itself out repeatedly over the years. For instance, at COP 3, New Zealand proposed that the Kyoto Protocol include mention of a staggered approach to limiting emissions that would progressively involve more and more developing countries. Numerous members of the G-77/China expressed their indignation at the suggestion: "Many developing country speakers, including EGYPT, ZAMBIA, the PHILIPPINES, TOGO . . . KIRIBATI, ETHIOPIA and TUNISIA called on Annex I Parties to commit to meaningful and prompt reduction targets. They also, inter alia: highlighted the principle of common but differentiated responsibilities; objected to commitments for developing countries; and stressed that industrialized countries have a moral obligation to take responsibility for their historic emissions" (ENB, Kyoto 1997).

Yet as the negotiations stretched into the 2000s, emissions from major emerging economies become an unignorably significant source of global emissions.[41] This new situation is formally recognized with the Copenhagen Accord, as the BASIC countries (i.e., Brazil, South Africa, India, and China) concede the need to act (Hurrell and Sengupta 2012). For the most marginal countries, however, who contribute a minuscule amount of greenhouse gases to the atmosphere, it does not necessarily follow that they should drop their demands for binding reduction commitments. Why not push that all large emitters, including BASIC countries, adopt binding targets? Nonetheless, after Copenhagen, while continuing to call for mandated reductions, they also insist on moving forward with other components of deliberation that directly serve their more immediate needs.

In an ambiguously astute manner, they make use of semantic resources that emerge at the Bali COP (e.g., the terms and ideas captured by the topic "shared vision" and the opening of the negotiation track around "long-term

[41] When the negotiations started in 1995, the United States, China, Russia, Japan, Germany, and India were the largest individual producers of industrial emissions. By 2006 China surpassed the United States and by 2011 produced as much cumulative emissions as the United States and the EU combined (although many of these are "offshored emissions," linked to consumption habits in affluent countries). When considering per capita or historical emissions, however, the United States, Japan, and Europe remain significantly more polluting than China or India (e.g., Ritchie and Roser 2017; Global Carbon Project 2021).

cooperative action") to execute this nuanced reversal of their previous negotiating position. For instance, in Copenhagen, an LDC delegate defends the Kyoto Protocol "as critical to the UNFCCC process and identified ambitious emission reductions by Annex I parties as the *only way* to reduce the already evident impacts of climate change" (ENB, Copenhagen 2009; emphasis added). Yet, in the next breath of discussion, the same delegate also insists that negotiations linked to other climate policies should continue to move forward: "Lesotho, for the LEAST DEVELOPED COUNTRIES (LDCs), urged countries not to betray the expectations of the anxious global population, and supported bottom-up and inclusive procedures and the continuation of *a two-track process*. He highlighted the importance of adaptation, financing, technology and capacity building support, and underlined the need for contributions to the LDC Fund to finance countries' most immediate adaptation needs" (ENB, Copenhagen 2009).

Understanding that the negotiating conditions were changing at Copenhagen, the LDCs pivoted rhetorically to turn the negotiations more to their advantage. Stressing the importance of binding emission targets remains part of their semantic repertoire, yet it no longer serves as a "red line" as they champion the language and approach from Bali, advocating for a "two-track process." As other diplomatic studies have shown, this pragmatic flexibility toward previously nonnegotiable stances can create a subtle negotiating edge for weaker countries. By conceding their previous opposition to voluntary commitments, the LDCs create a space to talk about other agenda items they favor (Weiler 2012). While hard to measure, such "offensive" (rather than "defensive") negotiating tactics frequently increase the bargaining position of subordinate parties as they establish a space for multilateral give-and-take (Moerland 2017).

ALTERNATIVE EXPLANATIONS

In our interpretation of events, the UNFCCC faced a real crisis at the Copenhagen COP of 2009. Old framings of climate policy lost their currency, and key agreements about the basis for action (binding targets and common but differentiated responsibility) were abandoned by powerful actors. Into this moment of institutional turbulence stepped a new set of actors, the LDCs among them. By varying their techniques of negotiation, we argue, the LDCs not only got themselves a seat at the table but also helped coalesce support around a new set of climate scripts, including marginal ones.[42] Yet other explanations for why (or whether) the most marginal actors of the

[42] Some scholars have argued that the LDCs negotiating style itself helped stabilize the fragile nature of deliberations after Copenhagen, making their skillful action a key component in keeping the entire UNFCCC enterprise afloat (Klöck et al. 2021).

UNFCCC (actually) become influential agents of multilateralism also deserve consideration. We see four competing explanations, one complementary and three antagonistic to ours, and we take each in turn.

First, the outcomes we observe may be the fruits of extraordinary leadership on the part of the LDCs. Many political sociologists have argued that historical moments of institutional rupture provide actors opportunities to bring new identities to the fore and remake routinized modes of social interaction (Swidler 1986; Padgett and Ansell 1993; Tilly 2002; Morrill, Zald, and Rao 2003). The fortunes of the LDCs, as we have seen, shift in precisely such a moment of institutional tumult. Taking advantage of tumult often requires what Fligstein calls "social skill" or the "ability to induce cooperation in others" (2001, p. 106). The ENB does not let us measure whether "social skill" is at play, but secondary literature suggests this may be the case.[43] What matters for our claims is that the sociosemantic shifts we observe are clear antecedents to the substantive multilateral outcomes we track. In other words, regardless of the skills question, it is the interaction between social and symbolic orders, at different scales of negotiation, that influences which scripts get produced and circulate in the world polity.

Second, the argument could be made that these poorer countries and what they say simply do not matter for multilateral outcomes. They have everything to lose if the talks collapse and so will accommodate nearly anything. As a result, they cannot serve as a credible counterweight to more powerful actors. To put it bluntly, even if they do appear to talk more, their talk does not matter (e.g., Victor 2009; Falkner 2016). However, this kind of zero-sum rationale needs to account for how the LDCs manage to maneuver the issue of loss and damage and the 1.5°C targets onto the climate agenda. Additionally, if we take the opposite assumption and ask what would happen if the LDCs walked away from the negotiations, it is easy to imagine that the dominant countries within the UNFCCC would lose significant moral legitimacy regarding addressing not just climate change but also future international challenges in other domains (Zartman and Rubin 2000; Barnett and Duvall 2005).

[43] Secondary sources suggest that the LDCs do gain some new forms of negotiating capacity post Copenhagen by entering into various strategic partnerships with different NGOs. These likely help them overcome various material, institutional, and epistemic barriers hampering their participation in the UNFCCC. NGOs that provided direct financial or technical assistance included the Climate and Development Knowledge Network, Climate Analytics, European Capacity Building Initiative, German Watch, the Legal Response Initiative, and Oxford Climate Policy. First and foremost among these groups was the International Institute for Environmental Development, which organized and helped host annual meetings for the LDC Group Committee, created and managed a website for the group, provided staffing for the group by conducting research and legal analysis at the request of the chair of the LDCs, ran press and communications support up through the Paris COP, and financially assisted with LDC delegates travel to intersessional meetings of the UNFCCC (Vanhala and Hestbaek 2016; Monzani 2018).

Third, the case could be made that the multilateral practices we observe within the UNFCCC deviate from other multilateral forums. This argument is grounded in the fact that the UNFCCC has unfolded almost entirely in a post–Cold War world (Selcer 2018). As a result, the multilateral terrain of the negotiations is different from the previous 50 years of multilateralism, so we cannot base many conclusions about multilateralism on the observations of UN climate talks. Moreover, since the start of the negotiations, no single powerful actor—not Russia or China or the EU—has served as a counterweight to the US interests (Howe 2014). As a result, there are few material repercussions when the United States ignores other countries' preferences (Kagan 2018). However, US recalcitrance has also created the conditions by which the LDCs have gained marginal agency. America's unwillingness to compromise on Kyoto, for instance, helped exacerbate tensions within the G-77/China group that ultimately opened up space for smaller countries to represent more forcefully their own interests (Ciplet et al. 2015). This process produces a more fragmented but perhaps more pluralistic world polity already observed by other scholars (Beckfield 2010).

Finally, our data might be interpreted to suggest that while the LDCs accrue new forms of agency, they do so just as the UNFCCC is becoming a less important venue for addressing the problem of climate change. The growing influence of marginal actors coincides with a broader crisis in multilateralism in general (Eilstrup-Sangiovanni and Hofmann 2020; Adler-Nissen and Zarakol 2021). Moreover, as our measures of participation show, the arrival of the LDCs coincides with an apparent withdrawal of the United States and the EU from the UNFCCC process. So, to the extent LDCs' agency exists, it counts for too little too late. This bears some truth. On the one hand, as numerous scholars have noted, the institutional fragmentation of global climate governance has increased over time (Biermann et al. 2009). Multiple new venues and arenas of climate action have opened that do not depend on decisions made at the COPs (Keohane and Victor 2011; Bulkeley and Newell 2015). On the other hand, the type of problem formulation and discursive framing that occurs within the UNFCCC serves to influence and legitimate norms and standards that circulate across these other arenas of action (the influential G-20 countries, bilateral initiatives, NGO agendas, city programs, etc.; Schofer and Hironaka 2005). The importance of the UNFCCC for facilitating such standard-setting functions should not be underestimated (Green 2013; Lövbrand, Hjerpe, and Linnér 2017; Aykut, Morena, and Foyer 2021). Furthermore, decreases in the US and EU presence post-Copenhagen (as seen in Panel C of Figure 3) likely belie a shift in negotiating tactics rather than a disengagement with the UN process.[44]

[44] While EU and US interventions in the ENB dip during this period, they remain the indispensable parties at the COPs. According to numerous analyses, the EU negotiating position moves away from a normative agenda post-Copenhagen toward a more pragmatic

And while China's interventions in the texts of the ENB do not increase (despite a reduction in interventions by the G-77/China), their delegation size explodes, rising from a range of between 15 and 50 delegates in the COPs preceding Copenhagen to between 90 and over 300 delegates for the COPs held between 2009 and 2015—not exactly a sign of multilateral disinterest (Kaya and Schofield 2020).

If any of these alternative explanations were predominately true (with the exception of social skill), we would expect the diplomatic inscriptions achieved by the LDCs to have little or no influence outside the UNFCCC. Further analysis shows that such is not the case. Drawing on multiple lines of evidence (including COP decision texts, news reports, and firsthand participant accounts), we take one of our two peripheral scripts—the 1.5°C temperature target—and track its production and subsequent circulation outside the halls of the UN negotiations.[45] The unexpected diffusion of the 1.5°C target serves to strengthen our claims regarding the importance of deliberative styles as a source of institutional change.

FROM DELIBERATIVE STYLES TO DIFFUSION OF SCRIPTS

Production of Marginal Scripts

Looking at the decision texts of the COPs, it is possible to trace how the 1.5°C target moves from the periphery to the center of the negotiations. Not originally part of the UNFCCC, the idea of setting a global temperature target gained appeal in the lead up to Copenhagen as a way to focus international decarbonization efforts. Intent on choosing a reasonable goal, the major economies first settled on a 2°C target (Randalls 2010).[46] Reflecting this agreement,

strategy of seeking the best climate deal possible (Bäckstrand and Elgström 2013; Parker, Karlsson, and Hjerpe 2017; Oberthür and Groen 2018). For the United States, Copenhagen, if anything, represents a renewed commitment to international collaboration following eight years of multilateral antagonism associated with the government of President George W. Bush (Parker and Karlsson 2018). The reduced "voice" of the United States in the ENB likely stems from a number of other factors, including a loss of credibility after the Bush years and domestic political constraints on the Obama administration that prevented the United States from trumpeting its climate policy objectives (for fear of handing Republican Party opponents a cudgel to use against Obama in his 2012 reelection efforts). At the COPs, the administration was often threading a needle of trying to overcome international skepticism without also triggering political backlash from opponents at home. As one pair of researchers quipped, this resembled a strategy of "no talk [and] some walk" (Kincaid and Roberts 2013; see also Chait 2015; Kienast 2016; Rajamani 2016).

[45] A similar story regarding the writing and diffusion of marginal scripts could also be told with the script of loss and damage, although the outcomes are more ambiguous than then 1.5°C target.

[46] Again, establishing an average global temperature target provided a single metric that the various global climate modeling teams could use to simulate emissions trajectories that would most likely achieve that temperature target. The various models generally

the Copenhagen Accord states that its signatories "shall, recognizing the scientific view that the increase in global temperature should be *below 2 degrees Celsius*, on the basis of equity and in the context of sustainable development, enhance our long-term cooperative action to combat climate change" (UNFCCC 2009, decision 2/CP.15; emphasis added).

Rough consensus around 2°C did not, however, include the LDCs. Their dissent is recorded in the ENB as early as the year before Copenhagen, where the "Maldives, for the LDCs, said a 2°C temperature rise would take the world into the danger zone. Both AOSIS and LDCs urged a limit of 1.5°C temperature rise and greenhouse gas concentrations of no more than 350 ppm" (ENB, Poznan 2008).[47] Through the insistence of the president of the Maldives, the LDCs and AOSIS succeeded in getting their dissent recorded in the Copenhagen text. In the most peripheral part of the accord (its last sentence), parties agreed that a future treaty "would include consideration of strengthening the long-term goal [set at 'below 2 degrees Celsius'] referencing various matters presented by the science, including in relation to temperature rises of 1.5 degrees Celsius" (ENB, Poznan 2008). This tepid inscription, granted in what seemed a symbolic concession to the vulnerable countries, was the fruit of much strategy. One advisor to the LDCs called it a "little silent hand-grenade" that would, when the time came (so it was hoped), blow apart dominant countries' efforts to close down debate on the matter (ICCCAD 2016).

During subsequent negotiations, these marginal countries launched a concerted campaign to institutionalize the 1.5°C target (Vidal and Harvey 2015; Jarju 2016; Livingston and Rummukainen 2020).[48] In the lead up to Paris, a group of LDC and AOSIS states succeeded in enrolling the support of EU members, who held several informal meetings to develop mutual positions around achieving 1.5°C (Parker and Karlsson 2017). Securing the backing of the EU greatly amplified the voices of the LDCs and AOSIS during

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agree that to have a high probability of hitting the 2°C target, the quantity of CO_2 in the atmosphere needs to be brought down to 380–90 parts per million (ppm). For 1.5°C, the CO_2 levels need to be 350 ppm.

[47] It should be noted here as well that there was a great deal of disagreement among both delegates and scientists of the wisdom of fixing any temperature target to mitigation efforts because of the uncertainties around how such targets translate into specific impacts in particular places (Morseletto, Biermann, and Pattberg 2017; Cointe and Guillemot 2023). However, while there was a lack of clear understanding in 2009 of what achieving a 2 C target vs. a 1.5 C target would mean for much of the world, the 0.5 C difference was considered likely existential for low-lying countries and island states subject to sea level rise, such as Bangladesh, Tuvalu, and the Maldives (Tschakert 2015).

[48] Within the back and forth of negotiations encoded by the ENB, the 1.5°C target appears as a topic of discussion in interactions between 67 delegates (of countries or country negotiating groups) in the lead up to and at the Paris COP. Among these interactions, nearly two-thirds (43) are attributable to the LDCs, AOSIS, the African Group, or a country belonging to one of those groups.

the negotiations. This kind of "vocal magnification," when a weaker party succeeds in enlisting a larger negotiating bloc to endorse mutual policy aims, has also been called "borrowing power" (Betzold 2010). The borrowing, though, works in two directions: the EU also "borrowed" the moral authority of the United Nations' most vulnerable countries to persuade more powerful nations to increase their climate ambitions.

To get the United States (deemed the essential vote) on board with the 1.5°C target, the LDCs had to concede other climate policy objectives. This included agreeing to an explicit reference within the Paris Agreement that developed countries were not considered legally "liable" to the "loss and damages" suffered by LDCs and others (Brun 2016; Monzani 2018). In the end, a compromise was struck, where the "below 2°C" language was retained but amended to assert that countries will aim to "[hold] the increase in the global average temperature *to well* below 2°C compared to preindustrial levels *and pursuing efforts to limit the temperature increase to 1.5° C*" (UNFCCC 2015*a*, art. 2/1(a); emphasis added).

This give-and-take shows how relational positioning (vocal magnification) and discursive strategies (moral maneuvering, in this case) can complement each other.[49] As Saleemul Huq, a long time LDCs advocate from Bangladesh, said in a conference after Paris: "[Even if] 1.5°C is an aspirational target [and is] very hard to achieve, *it's now embedded in the Paris Agreement*. And this is something that when we went to Paris, only the vulnerable countries wanted this. The big developed countries did not want it, the big developing countries did not want it, and over two weeks, *we managed to persuade them to change their minds*" (ICCCAD 2016; emphasis added). Although the formulation of the 1.5°C target was heavily watered by its opponents, its inclusion in the treaty text of Paris demonstrates the LDCs' ability to leverage increases in voice and agenda-setting capacity to influence actual diplomatic inscriptions.

Additionally, the LDCs and their allies partially offset the textual ambiguity of the Paris Agreement's article 2 by inserting language asking the IPCC to "provide a special report in 2018 on the impacts of global warming

[49] Other examples of combining sociosemantic modes of negotiation could be evoked. In the lead-up to the Paris Agreement, e.g., many LDCs adopted emission targets, something not expected of them under the rules of "common but differentiated" approaches to climate change. However, weak actors' willingness to cut emissions (a pragmatic reversal) leads to a normative compulsion (moral maneuvering) for others to adopt higher ambitions. The LDCs, in other words, model the behavior they want more materially powerful actors to perform. As the special climate envoy for the Gambia wrote after the Paris COP, "The Gambia contributes about 0.01% to global greenhouse gas emissions. Despite this, the country has committed to drastically reducing its emissions by 44.4% in 2025 and 54.4% in 2030 with domestic and international support. *If The Gambia can take such bold steps, surely others have the moral obligation to do more*" (Jarju 2016; emphasis added).

of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways" (UNFCCC 2015*b*, p. 4). Results of the study confirmed that many LDCs and small island states would indeed face catastrophic and irreversible damages if temperatures rise above 1.5°C on average (IPCC 2018). The study itself has become what sociologist William Sewell calls an "agentic resource," an "instantiation of [cultural] schemas in time-space that can be used by actors to generate power" (1992, p. 13). Capturing the schema, or script, of avoidable harm (there is theoretically still time to dodge the consequences of going above 1.5°C), the IPCC's special report becomes a durable reference that the LDCs and others can draw on to both justify more stringent emission reductions and also further legitimize their loss and damages approach to addressing climate impacts.[50]

Diffusion of Marginal Scripts

However, getting your agenda items inscribed into diplomatic objects does not mean that they will have substantive effects (i.e., that they will change or alter other parties' actions). Multilateral inscriptions are often constructed in ways that dilute their impact or render them purely symbolic. Within UN negotiations numerous syntactical and formatting moves—like introducing a comma into a text or pushing a reference into an annex document—can subtly alter an inscription's meaning (Biniaz 2016). Additionally, the collective and technologically mediated nature of how multilateral decisions are edited, what Adler-Nissen and Drieschova (2019) call "track-change diplomacy," can rob specific inscriptions of their initial authors' original intent. Nonetheless, diplomatic texts encode legitimate models for action, and these are what circulate and travel outside international negotiations (Meyer, Boli, et al. 1997; Boli 2005; Schofer et al. 2012; Kentikelenis and Seabrooke 2017).[51] As we show in this

[50] This practice of enrolling or "citing" scientific knowledge in the negotiations could potentially be considered a fifth component of the LDCs' deliberative style (and one that other countries deploy as well). The LDCs' citation of a scientific text they themselves requested, as a means of restricting other parties' capacity to ignore the LDCs' policy preferences, is a masterstroke of marginal diplomacy. It is a move that also strongly influences the way the scientific community produces knowledge about future climate impacts and emissions scenarios. Before the request made by the LDCs and their allies, the IPCC was not actively producing scenarios with the 1.5°C target. So, as Cointe and Guillemot (2023) document, the 1.5°C script also follows an unusual trajectory per world society expectations, diffusing first from the diplomatic realm, to the scientific realm, and then back.

[51] Similarly, the mobility (rather than diffusion) of inscriptions, as initially conceived in the sociology of science, is also one of their defining features and how they confer authority. Scientific inscriptions (maps, graphs, soil coloring schemes) are expected to travel from one location to another essentially unchanged (Latour calls them "immutable mobiles"), affording particular forms of power and knowledge to those who refer to them (Latour 1986). Diplomatic inscriptions are similar in their mobility but do not share this same "immutable" quality. This is because such inscriptions are often composed in ways

section, the 1.5°C script does travel and has begun to have political effects beyond the corridors of the UN talks, influencing civic activism and decision making in other institutional settings (Viglione 2020; Hermansen et al. 2021).

For instance, in the realm of activism, Swedish student Greta Thunberg's now famous "climate strike" initially began as a means of shaming her government to align its climate policies with the Paris Agreement. In the absence of action, Thunberg announced in late August 2018 that she would protest every Friday in front of the Swedish parliament, "striking" from school until Sweden passed legislation that would put its emissions on a path to prevent global temperatures from going higher than 1.5°C (Crouch 2018; Gessen 2018; Asayama et al. 2019). Her choice to emphasize the more stringent quantitative target agreed to in Paris was bolstered by the release of the IPCC 1.5°C special report in October of that year, which highlighted the calamity awaiting vulnerable countries should average temperature levels exceed 1.5°C. Her protest galvanized a global youth movement called Fridays for the Future, which overlaps, reinforces, and in many ways was enabled by AOSIS and the LDCs' success in maneuvering the 1.5°C temperature target into the text of the Paris Agreement.

This civic activism around 1.5°C, in turn, has also begun to influence the internal affairs of Annex I countries. In May 2020, for instance, a planned expansion at Heathrow Airport was halted after citizen groups sued the airport authority, arguing that the expansion would prevent Britain from meeting its commitments under the Paris Agreement (i.e., the expansion would not keep emissions below the "preferably 1.5°C" threshold). Following the ruling, the *Guardian* newspaper quoted one expert saying, "For the first time, a court has confirmed that the Paris Agreement temperature goal has a binding effect. The goal was based on overwhelming evidence about the catastrophic risk of exceeding 1.5°C of warming" (Carrington 2020).[52] In another example of diffusion of the LDCs' script, in a legal suit brought by a group of young environmental activists, Germany's Supreme Constitutional Court ruled in April 2020 that the German state was not doing enough to fulfill its federal Climate Protection Act (passed in 2019), which established emissions reduction targets in line with "keeping global average temperature to well below two degrees Celsius, *and if possible, to at 1.5 Celsius*" (Connolly 2021; emphasis added). Similar cases have been decided in the Netherlands and Columbia (Spier 2020; Viglione 2020).

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that enhance ambiguity, which is often necessary when trying to achieve agreement among numerous parties (see Biniaz [2016] and Adler-Nissen and Drieschova [2019] on this point).

[52] This ruling was struck down nearly a year later by the UK Supreme Court, but the lawsuit contributed greatly to delaying the planned airport expansion. Given ongoing opposition and other constraints (including expected carbon emissions from the expansion), it is unclear if the third runway will ever be built.

Finally, the more stringent temperature goal of the Paris Agreement has also spread into other institutional arenas. Major financial actors, for example, have created the Net-Zero Asset Owner Alliance through the United Nations Environment Program designed to align their investment portfolios "to keep global warming below 1.5°C" (NZAOA 2023). These goals are also being institutionalized via new financial benchmarking tools, such as the Morgan Stanley Capital International (MSCI) Climate Paris-Aligned Indices, which financially value companies on how they are performing with regard to the 1.5°C target (not a 2°C target). Central banks, subsequently, have also taken the Paris Agreements' emission targets to establish a regulatory framework aimed at further constraining the behavior and lending practices of the large commercial banks under their supervision (Carney 2015; Tooze 2019).[53]

This all suggests that the quantitative target, itself the result of persuading from the periphery, is not just reorienting the positions of parties to the UNFCCC but spreading out to touch the behaviors, norms, and expectations of a much more diverse set of actors across multiple institutional domains. These outcomes contravene the argument of those who have critiqued the Paris Agreement for advancing goals that lack the legal bite of binding emission reduction targets (e.g., Sabel and Victor 2017) and also suggest that to the extent marginal scripts, such as the 1.5°C target, diffuse, they do so via much more circuitous, "rhizomatic" pathways than the kind of institutional models traditionally observed by world society scholars (Pope and Meyer 2016; Wimmer 2021). These pathways include contentious actions by civil society groups trying to hold their own countries' governments accountable to the decision made in Paris regarding the ambition of emission reductions and voluntary actions by financial institutions trying to maintain their legitimacy (or gain a competitive edge) with clients and regulators.

DISCUSSION AND CONCLUSION

Given significant disadvantages, why do marginal actors succeed in becoming vocal, agenda-setting scriptwriters within international negotiations? The sociology of international politics and world society scholarship need better theories for explaining how weak actors exercise agency in multilateral settings. Absent economic wealth, military strength, ideological weight,

[53] While this is certainly evidence of diffusion, it is worth noting that there are plenty of scholars who are very skeptical that these developments in the financial sector are anything more than "window-dressing," i.e., classic forms of world society "decoupling" between script and action (e.g., Gabor 2021; Simpson, Rathi, and Kishan 2021; Engels et al. 2023). It remains to be seen how much of this adoption is just myth and ceremony or actually leads to practical changes in lending and investment decisions that affect emissions trajectories.

or normative power, small states are perceived of as largely passive participants (Block-Lieb and Halliday 2017; Falzon 2023), votes for sale (Norrlof 2010; Weiler, Klöck, and Dornan 2018), Gramscian gadflies (Ciplet et al. 2015), or imitative adopters of scripts of which they are not the authors (Meyer, Boli, et al. 1997). Our evidence suggests, however, that in the context of the UNFCCC, the LDCs experience increased capacity to shape the multilateral agenda through the cultivation and deployment of a specific style of deliberation—persuading from the periphery. This repertoire of techniques combines relational positioning and discursive strategies that work to mutually reconfigure in subtle but meaningful ways the social and symbolic structure of the negotiations to their favor (Emirbayer and Goodwin 1994; Barnett and Finnemore 2004; Mische 2008).

While we expect that deliberative styles may operate in multiple social settings, they are particularly evident within formalized arenas of discussion and decision making, such as multiparty diplomatic negotiations. These kinds of settings are identifiable by a certain number of conditions: First, there must be a sustained temporal element to discursive interactions that allows discussion norms to emerge and stabilize. Second, the discussions must occur (at least partially) in the open (which compels groups to converge more quickly on a deliberative style). Third, the arena must be political, not personal, in nature. Finally, discussions must include some competitive component (i.e., everyone involved is pursuing outcomes that are at least partially strategic or self-interested). Alternative marginal deliberative styles may be observable in other types of settings, such as faculty meetings containing junior and more senior faculty members or shareholder meetings between small and large shareholders. Still, for this article, we focus on diplomatic negotiations.[54]

[54] Regarding the generalizability of our findings, we might also add here a distinction between unitary versus fragmentary fields of diplomatic negotiations. Our concept of persuading from the periphery assumes that weak countries remain involved in the UNFCCC in order to exercise their "voice" from within. There are examples, however, of weak countries "exiting" such forums (to extend Hirschman's famous tripartite categorization of political choice). For instance, in international negotiations around nuclear diplomacy, Mallard (2014) shows how weak states sometimes assert themselves by fostering a more fragmented deliberative space. Large powers (the United States and the EU), according to Mallard, have an interest in preserving the unitary character of negotiations around the Non-proliferation Treaty regime. Recently, however, the nonnuclear weapon states (many of which are LDCs) have moved the discussion outside the Non-proliferation Treaty–regulated forums, by setting up a new treaty banning nuclear weapons. This move, as Mallard discusses, was heavily criticized by all the powerful states, but it shows that LDCs can sometimes exert pressure on strong states by moving the discussion outside the initial negotiation forum, into a space in which strong states are absent. This suggests that LDCs may have a repertoire of styles to choose from and that, depending on the context, they may shift from one style to the next. We thank an *AJS* reviewer for pointing us to this example.

Computational analysis of the interactive moments of negotiation has supported a more agentic interpretation of the multilateralism of the marginal. Our approach builds on world society understandings about cultural diffusion of institutional scripts but provides a slight twist. In our two principal examples of how LDCs influence models for climate action (i.e., the introduction of the concept of loss and damages and the revision of the global mean temperature target), they do so by leveraging "rational" arguments (i.e., arguments based on liberal notions of legal liability and scientific findings about the dangers of exceeding the 1.5°C target; see n. 40). However, they blend these "universalistic" narratives with their marginal positionality. This specificity points to how abstract representations of global change, such as the difference between a 2°C and 1.5°C average global temperature target, gain institutional weight when tethered to the vulnerability faced by particular actors, not because they exhibit some universally self-evident form of reasoning. As science and technology studies scholar Sheila Jasanoff writes, "Representations of the natural world attain stability and persuasive power . . . not through forcible detachment from context, but through constant, mutually sustaining interactions between our senses of the *is* and the *ought*: of how things are and how they should be" (2010, p. 236). Such is the case for the production and diffusion of the marginal scripts considered in this article.

Our approach also points to how material and cultural practices mutually constitute localized orders of social interaction. When these local orders are diplomatic negotiations, they affect larger political configurations. Future research, however, needs to distinguish further how learning and skillfulness occur within still-unfolding processes of multilateralism (Fligstein 2001). What role, for instance, do investments in "capacity building" play in helping marginal actors become meaningful multilateral agents (Klöck et al. 2021)? How do years of spending by developed countries to support LDC delegate's attendance at the COPs influence the process of negotiations? To what extent does the LDCs' success in asserting a more active role in negotiations reflect efforts by more powerful actors to cultivate this role? These are empirical questions that need additional exploration.

Furthermore, future research into the institutional origins of marginal multilateral agency should also look at other coalitions' roles as potential models for the LDCs. For example, throughout the negotiations, AOSIS, representing vulnerable but generally wealthier countries (including a small portion of LDCs), is consistently perceived as "punching above their weight" (Betzold 2010). Social relations and coordination between AOSIS and the LDCs and African Group need to be fleshed out through research involving interviews and review of correspondence and primary sources to specify further where and how learning occurs within multilateral deliberation networks and how these ties affect the distribution of negotiating power. Answers to

these questions would have implications for understanding how marginality operates in other multilateral venues.

In the literature on world society, marginal actors are not often treated as active subjects. More frequently, they are thought of as recipients of top-down models of governance coming from elsewhere. Nor, in the adjacent literature on IOs, are moments of multilateral negotiation treated with the same analytic rigor given to actions brokered by the expert staff and resources of IOs. However, as the governance of greenhouse gas emissions and climate risks continues to evolve, it is crucial to understand the evolution of the multilateral arena in which questions of global climate action were first raised. We argue that these treaty-making sites produce resources for institutional action in other settings and deserve renewed scrutiny from political and cultural sociologists. The computational methods used in this article suggest a way forward that considers the scale and complexity of discussions while respecting the microdynamics of diplomatic interaction on which the world polity is constituted and socially reproduced. With such an approach, we present a model of multilateral negotiations as spaces of sociosemantic interaction, where moments of institutional upheaval create opportunities for subordinate actors to influence—from the margins—the agenda and direction of international politics.

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