Making the Paris Agreement: Historical Processes and the Drivers of Institutional Design

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Abstract

After a decade-long search, countries finally agreed on a climate treaty in 2015. The Paris Agreement has attracted attention both for overcoming years of gridlock and for its novel features. Here, we build on accounts explaining why states reached agreement, arguing that a deeper understanding requires a focus on institutional design. Ultimately, it was *this* agreement, with its specific provisions, that proved acceptable to states rather than other possible outcomes. Our account is multi-causal and draws methodological inspiration from the public policy and causes of war literatures. Specifically, we distinguish between background, intermediate, and proximate conditions and identify how they relate to one another, jointly producing the ultimate outcome we observe. Our analysis focuses especially on the role of scientific knowledge, non-state actor mobilization, institutional legacies, bargaining, and coalition-building in the final push for agreement. This case-based approach helps to understand the origins of Paris, but also offers a unique, historically grounded way to examine questions of institutional design.

1. Introduction

The Paris Agreement has been hailed as a breakthrough for the climate regime. For years, questions lingered over whether the United Nations (UN) negotiations could deliver, especially following the failure in Copenhagen in 2009. Yet, in December 2015, delegates applauded the adoption of a legally binding agreement for the first time since the 1997 Kyoto Protocol. For those present, ending negotiations was itself a victory. The Paris Agreement appeared to buck the trend of persistent gridlock, which has characterized many global issues and frequently led to lowest-common-denominator solutions (Hale, Held and Young, 2013). Understandably, much literature has focused on explaining how the global deal was done. Scholars have accounted for "success" by pointing to factors like civil society mobilization, great power politics, leadership, learning, and careful management of the negotiations (Falkner 2016; Dimitrov 2016; Eckersley 2020; Jacobs 2016; Milkoreit 2019). Their studies have illuminated important pieces of this puzzle, improving our understanding of how negotiators were able to move "beyond gridlock." Yet, ultimately, they do not offer a full account of why states accepted the Paris Agreement—with its unique suite of design features—as opposed to some other outcome. They explain why states reached *some* agreement in 2015, but not why they produced this *specific* one.

This is the question that we focus on here. While this article builds on and extend these earlier accounts, we argue that advancing our understanding of Paris now requires a focus on institutional design and careful attention to the historical drivers underlying this process. In doing so, we think about the negotiations as a complex set of events where states considered, fought over, rejected, and embraced a variety of design elements. At different points, numerous outcomes were possible, including success and failure. However, beyond outright failure, a "success" might have taken several forms, including a face-saving political declaration, a fully-fledged treaty establishing binding "targets and timetables," and many other possibilities in between. Throughout, a range of political forces, actors, and ideas opened some options, foreclosed others, and pushed states towards particular outcomes falling within a set of "live" possibilities. The agreement that ultimately emerged, we argue, must be understood as the product of these intersecting dynamics.

This is a different approach than we commonly see. Often, scholars studying questions of institutional design focus on correlations between aspects of a problem, such as the distribution of power or scientific uncertainty, and specific types of treaty provisions (Koremenos 2016). Much of the institutional design literature employs a functionalist logic. But others, with different starting points, take similar approaches, explaining the links between certain causes and specific design features. In doing so, they seek to account for the *effects* of particular causes (Goertz and Mahoney 2012). This is a valuable endeavor, especially when one seeks to make generalizable and relatively ahistorical claims. It is less useful, we argue, for understanding unique outcomes, like the Paris Agreement. The framework we employ, instead, embraces multiple causal processes and aims to specify the *relationships* between them. Specifically, we take a cue from scholarship that has employed historical causal analysis in the fields of political behaviour and public policy, and the case-based literature on the causes of wars (e.g., Goertz and Levy, 2007; Simeon 1976). To date, such an approach has not (to our knowledge) been used to understand international treaty-making. Yet it has the potential to be used in a range of other fields seeking to account for complex, but singular phenomena, such as the negotiation of specific international agreements.

This specific framework we adopt offers a way of categorizing causes as background, intermediate, and proximate factors that jointly shape the process of institutional design. Background factors constitute the setting for negotiations and shape the broadest contours of an agreement. With Paris, long-term changes in technology, the science of climate change, and the actions of non-state actors surrounding the negotiations each played this type of role, for instance. Such conditions may be common to earlier stages of the negotiations, but are crucially modified by intermediate factors, which operate within these boundaries and further delimit the options available. In Paris, we argue, this included institutional legacies and the "red lines" of key states and coalitions. These factors constrained the kind of agreement that was possible but still did not fully settle things. Instead, they paved the way for *proximate factors*, temporally closer to the negotiations, which resolved remaining issues and helped to locate a point within an acceptable set of

outcomes. Here, critical factors included coalitions-building and efforts by the Conference of the Parties (COP) Presidency team to build consensus on a choice from among the remaining options. The result of this process—the Paris Agreement—can thus be understood as the product of several nested bargains, where the deals struck in earlier periods set the stage for and constrained the agency of actors later on.

The approach we take offers a way of embracing causal complexity while explaining more precisely how certain factors mattered. It can be regarded as a kind of analytic narrative that draws on existing theories and our knowledge of the negotiations to create a "theoretically thick" account of a singular event (Bates et al 1999). Further, rather than explaining how the presence or absence of a variable led to agreement, our approach focuses on how a unique set of historically-situated causal forces produced, in an interlocking fashion, the various elements that we see in the Paris Agreement. Our account relies on extensive participant observation, documentary analysis, and interviews with individuals involved in the negotiations at both the technical and political levels, including the COP President and various ministers.[1] In doing so, we examined how bargaining processes unfolded, assessed what was settled or not at different stages, and how different causal forces shaped decision-making at each point. Ultimately, the method cannot resolve every question. It is less useful if one wants to precisely estimate the relative "weight" of particular causes. A classification may also be revised as new information becomes available. But, ultimately, with our analysis we hope to demonstrate a way of opening-up

[1] Between us, we have attended all of the negotiation sessions leading to (and since) Paris, in varying capacities. We have interviewed and interacted with dozens of climate negotiators and activists, in addition to the key informant interviews for this research. Jen Allan wrote for the *Earth Negotiations Bulletin* throughout the Paris Agreement negotiation period. She had access to closed-door negotiations (therefore, quoting is inappropriate). Thomas Hale is Chair of the Expert Peer Review Group of the UN Race to Zero campaign. The other authors participated in various meetings as observers. Authors regularly spoke with Secretariat leadership and staff at every negotiation session and the COP Presidency teams at COPs. We also spoke with and have previously interviewed delegates, particularly from LDCs, SIDS, the EU, Switzerland, Canada, and South Africa regularly, during and between meetings. These delegates include Heads of Delegation and lead negotiators on key issues. These discussions informed our background knowledge of the negotiations, but were not conducted specifically for this paper. Therefore, while important, we have not quoted from these discussions in what follows.

a more systematic debate about the making of the Paris Agreement and demonstrating a way of exploring similar outcomes in other areas.

The article proceeds in four steps. First, we outline the Paris Agreement and show that several models were possible. Second, we introduce the literature on institutional design and our analytical framework. Third, using this framework, we explain the design of Paris by highlighting the different roles and interactions between key causal dynamics. Our account begins around 2009, when negotiations failed in Copenhagen; proceeds through an intermediate period (2011-2014) leading up to COP 21 in Paris; and finishes with the negotiations in 2015. We conclude by identifying the lessons that our account offers for both theory and policy.

2. The Design of the Paris Agreement

The Paris Agreement is notable, in part, simply for existing. In 2015, states "succeeded" in producing a new framework for action on climate change. Given the difficulty of the negotiations, and the persistent gridlock that beset numerous efforts to achieve cooperation during this time, agreement was indeed an important accomplishment. Scholars have rightly focused on explaining this. But Paris is notable for other reasons. Above all, it has a puzzling design. It shares affinities with earlier agreements, like the 1992 UN Framework Convention on Climate Change (UNFCCC), the Kyoto Protocol and, especially, the Copenhagen Accord. It combines earlier design elements, incorporates others, and adds new ones. Several studies have already advanced ways of characterizing the Paris "model" (Allan, 2019; Bodansky, 2016; Hale, 2020; Held and Roger, 2018). Here, we draw on this work to highlight five key components.

First, Paris sets out goals for the global community. At bottom, these are about risk management. The UNFCCC—the Convention under which the Paris Agreement sits—does not aim to stop climate change altogether. Its objective is, instead, to "avoid dangerous anthropogenic interference with the climate system." The Paris Agreement, in contrast with Kyoto, sets a specific global limit, representing what the world believes is an "acceptable" level of risk: "2°C above pre-industrial levels." The Agreement also calls on states to

"pursu[e] all efforts to restrict global average temperature rise to 1.5°C" (Article 2.1a). Together, these goals offer a yardstick to measure the adequacy of global efforts. Moreover, with Article 4.1, Paris also creates a deadline for achieving "a balance between anthropogenic emissions by sources and removals by sinks of greenhouse gases"—that is, net zero emissions—"in the second half of this century."

Second, the scope of participation is wider, and expectations of participants are more universal, than previous efforts. For the first time, *all* parties have "symmetrical" responsibilities regardless of their status as a developed (Annex I in the UNFCCC) or developing (non-Annex I) country (Bodansky, Brunee and Rajamani 2017). All are expected to submit or update pledges—called nationally determined contributions (NDCs)—every five years (Article 4). Every two years, parties must submit reports documenting progress towards their NDCs as part of the enhanced transparency framework (Article 13). Some flexibility is built in. Pledges are expected to conform to pre-specified rules, but their content is set individually. Countries with varying capacities for reporting will also confront slightly different expectations regarding the information included in their national reports. Overall, though, these obligations differ from previous approaches. The Kyoto Protocol established targets and timetables for industrialized countries; developing states were exempt. Equally, Copenhagen's system had differentiated expectations for developed and developing countries. And, in the end, global buy-in to Paris is greater: participation is all but universal. Even more broadly, the decision text accompanying the Agreement calls sub-national and non-state actors to work toward the goals it sets. So, the type of actors involved is more diverse too.

Paris's third feature concerns the nature of the pledges. Whereas the Agreement requires all countries to advance a pledge of some kind, it grants parties significant scope to set their own level of ambition without bargaining at the international level. Countries' pledges will not be negotiated and explicit bargaining is not expected in the future. The agreement obligates developed countries to identify a quantified emissions reduction target for themselves, but they choose the target, its baseline, and the mechanisms to reach that goal. Accordingly, the pledges vary widely. Today, roughly half include some sort of target for

reducing emissions below "business as usual" and a quarter include a target reduction below a reference year (Rowan 2019). Many outline policies and plans, but do not set a target, and some of these plans are made conditional on financial support. A few countries (notably China) selected a "peak year," when the intensity of greenhouse gas emissions in their economies will begin to decrease. In short, the approach enables considerable variety in terms of the types of commitments being made.

This marks an evolution in thinking about a key component of the climate regime: the principle of common but differentiated responsibilities and respective capabilities (CBDRRC). This principle has guided negotiations since the early 1990s, and it was necessary to bring developing states on board (Rajamani 2012). Traditionally, it was thought to bifurcate responsibility: developed countries caused the problem, have the capacity to address it, and should do more, while developing states should be allowed to industrialize and address issues such as poverty alleviation. Later, CBDRRC became a discursive battleground, as developed countries sought parity between their commitments and those made by emerging economies as their "capabilities" increased. In the Paris Agreement, the principle expanded to become CBDRRC "*in the light of different national circumstances"* (Preambular section, emphasis added). This revised principle underwrites the NDCs advanced under Paris: now, every country is involved and can determine the specifics of their involvement. "Self-differentiation" is now the rule.

The fourth element is the legal basis of the Agreement. Self-differentiation seems anathema to a legally binding agreement, where states commit to specific actions. However, like the Kyoto Protocol and unlike the Copenhagen Accord, the Paris Agreement is an international treaty (Bodansky 2016). The Agreement nevertheless specifies different types of obligations, creating a disjuncture between the overall "binding" form of the agreement and individual provisions. The result is a hybrid arrangement involving a host of interlocking clauses, some more binding than others (Bodle and Oberthür 2017). For states, there are two central legal obligations: to submit an NDC and to submit a national report. Paris also establishes expectations related to clarity, transparency, and progressive action (Article 4.8), but the contents of the NDCs are largely unregulated. Most other

commitments are institutional or procedural and, ultimately, non-binding in character, though some may reflect binding targets in national law (Rajamani 2016).

The danger of such a system is that countries will do the bare minimum, falling short of the necessary level of ambition. Thus, fifth and finally, the Agreement sets up a mechanism designed to progressively increase the overall level of commitment. This "ratchet" mechanism operates through cycles of pledge and review. Every five years, countries submit or update their NDCs. Three years after each submission, a "Global Stocktake" assesses aggregate progress (Article 14). This then informs countries' subsequent pledges, which are expected to be more ambitious than previous efforts, according to the "no backsliding principle" that partly governs the submissions of NDCs (Article 3). Finally, while previous agreements had informal reviews of aggregate progress, the Stocktake will be a permanent fixture of climate governance for the foreseeable future, providing regular information on climate ambition, efforts to adapt to climate impacts, and the provision of support (Hale 2020).

By combining ambitious goals, universal participation, nationally determined responsibilities, and a ratchet-up mechanism within a hybrid agreement, the Paris Agreement is, arguably, "a Goldilocks solution that is neither too strong (and hence unacceptable to key states) nor too weak (and hence ineffective)" (Bodansky 2016, p.2). It was a successful formula, at least in terms of attaining the approval of states. But why this particular agreement emerged requires careful analysis. Certainly, there were other options. Indeed, several models were debated and discarded in favor of Paris. Consider the models adopted or proposed over the history of climate negotiations in Table 1. The *Kyoto* and *Copenhagen* models vary in their legal nature, the form of obligations, and their objectives. Along with these historical developments, other alternatives percolated in the literature and in the negotiations. Academics such as Eckersley (2012) and Hovi et al (2016), for instance, have advocated for a *club model* that would define who participates based on their level of ambition. Starting with a small number of members, it might then expand over time as outsiders are pressured to join.

Table 1 Models for Climate Action

Model	Shared goals	Participation	Commitments	Legal form	Rachet-up mechanism
Paris Agreement	Yes	Universal	Nationally determined, regular update	Hybrid	Yes
Kyoto Protocol	Defers to Convention	Narrow	Written in treaty, updated every 5 years	Legally-binding	Yes
Copenhagen Accord	Yes	Wide	Nationally determined	Non-binding	No
Club	Yes	Narrow	Nationally determined, within club	Non-binding	No
Voluntary	Yes	Universal	Nationally determined	Non-binding	No
No agreement	n/a	n/a	n/a	n/a	n/a

In addition, purely *voluntary models* for major global problems have gained traction, ranging from the Global Compact on Migration to the Sustainable Development Goals. One could envision a similar climate agreement, with objectives and voluntary arrangements pledged by states. The scope would be universal, although not housed in a treaty and with fewer mechanisms for scaling-up ambition. Finally, there could be *failure/no agreement:* one possible approach is simply to coordinate national action outside of a global framework. If states failed to reach consensus, then some sort of ministerial declaration or work programme could be agreed, with greater reliance on unilateral action.

But, ultimately, Paris stands on its own. Countries adopted not just any treaty, but a treaty with a particular suite of design features that proved politically palatable. Thus, the institutional design question: why was *this* deal adopted?

3. The Drivers of Institutional Design

Institutional design has become a central topic in IR. In the 1980-90s, the question of how states achieve cooperation was paramount. But, in the 2000s, scholars shifted toward explaining how specific types of institutions were selected. Since then, our understanding of the factors underpinning different designs has rapidly advanced. Scholars such as Barbara Koremenos (2016) have demonstrated that states sometimes align the characteristics of a problem with the resulting agreement. Uncertainty about the future, for instance, has been linked to the presence of flexibility mechanisms. Domestic politics, bargaining, and coalition-building have also been shown to matter for determining state preferences and settling differences when multiple options are available (Moravcsik, 1997; Milner, 1997). More recently, scholars have shown that contextual factors, like extant institutions, can shape institutional design (Copelovitch and Putnam, 2014). Prior successes—and failures—provide valuable information and resources that negotiators draw upon when they seek to address a problem. And, finally, the role of scientific communities and non-material motives related to an agreement's "fit" with prevailing social norms can be important as well (Haas, 1992; Bernstein, 2011).

Much of this literature is concerned with measuring the "typical" impact of particular causal factors—uncertainty, interdependence, power, etc.—and aims to make generalizations about their relationships with certain design features. It focuses, in other words, on understanding the *effects* of particular causes (Goertz and Mahoney 2012). When scholars turn to analyze specific historical outcomes—as we do here—they have drawn on such insights but have tended to adopt a different mode of analysis, focused on identifying the *causes* of particular effects—"they are devoted to the exploration of cases, not to the elaboration of theory," as Bates et al. (1999, p.11) have said. Such studies usually acknowledge that multiple drivers are at work in any one case and seek to show how variables operate in a specific historical context rather than whether their presence or

absence correlates with a given outcome. Analytically, though, their identification has often been accomplished by unpacking them one by one, leaving aside the task of integrating insights into related dynamics and specifying the precise roles that they played relative to one another.

With respect to the Paris Agreement, for example, Jacobs (2016) has zoomed in on the role of civil society activism for determining the level of ambition in Paris, while Milkoreit (2019) has highlighted the role of great power politics. Coalition-building, novel ideas, and leadership have been regarded as important for settling specific aspects of the Agreement's design (Falkner 2016; Eckersley 2020; Ourbak and Magnan 2017; Dimitrov 2016; Victor 2015). These accounts identify important pieces of the puzzle, which we draw on in what follows. Ultimately, however, it remains unclear how this all fits together. Most of the current literature links these drivers with a narrow range of design elements—flexibility mechanisms, targets, ambition, etc.—not how they hang together and comprise the agreement as a whole. Consequently, the links between the different causes they focus on are only loosely understood.

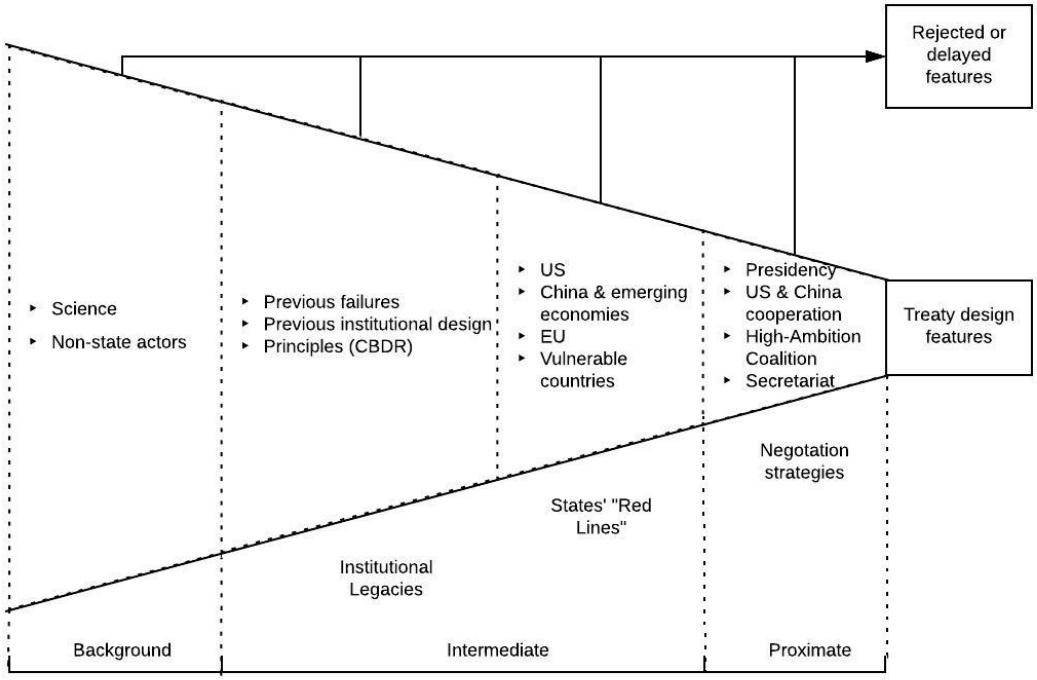
The Causal Funnel Approach

The complexity of global (climate) governance presents unique challenges when trying to surmise patterns from multiple, intersecting dynamics. We undertake a historically grounded case study to identify the various roles played by different factors in settling the final outcome in Paris. Specifically, we employ a type of analytic narrative approach (Bates et al. 1998; Büthe 2002; Hanrieder and Zürn 2017). Analytic narratives focus on explaining outcomes by drawing on existing theoretical knowledge and "identifying and exploring the mechanisms that generate them" (Bates et al 1998, 9). At its core, the idea is to link a particular starting point and a final outcome through a coherent account that helps make sense of historical developments. While the correlational approach is useful for several types of inquiry, we are more interested in the historical chains that link events together: for instance, how path dependence, bargaining, and actors' strategies jointly led to the selection of one type of treaty over other possibilities.

That said, our approach to analytic narratives is somewhat unique. We focus, specifically, on how available options *narrowed* over time, until only a small number remained viable, and how one of these was ultimately selected. We focus on those events, actors, and institutions' interconnected roles in nudging states toward certain options, away from others, and shaping how they selected from among those available in the final stages of negotiation. Some factors, we argue, allowed for many different possibilities, were common to earlier periods, and only moderately constrained the range of design options. Others pushed states towards more specific outcomes, moving choices off the bargaining table, or led them to defer discussion to the future. And at the end of this process, in Paris, only one design was left. Of course, at this stage, it remained possible that states miscalculated, and that the final agreement was unsatisfactory. But it is important to see

that by this point agreement depended upon whether this *particular* treaty remained within the set of acceptable options. Success was, ultimately, dependent upon design.

Figure 1 Background, Intermediate and Proximate Causal Factors



In constructing our narrative, we group causal forces into background, intermediate, and proximate causes or conditions, as visualized in the funnel diagram in Figure 1. Our approach, here, draws on the type of policy analysis pioneered by people like Richard Simeon (1976) in the field of public policy, by Campbell et al. (1960) in their classic study of voting behavior, and, among IR scholars, by those who have examined the causes of war (Goertz and Levy 2007). These approaches do not offer a particular model of politics but a technique for analyzing unique historical events. While each is somewhat different, they are unified in their effort to identify the causal forces at work and especially, as Simeon (1976, 556) has said, to "delineate their inter-relationships and their independent contributions to explaining the central dimensions of policy." This task is accomplished by triangulating among evidence (documents, observations, interviews), background theory, and specific studies of the outcome. By examining the models actors considered at different

times, and the "facts" that they took as given, we can distinguish between the causal roles played by different forces and dynamics at several discrete stages. We can thereby improve our understanding of their interplay and of the outcome they produced.

The background, intermediate, and proximate causes we focus on are analytically "close to" or "far from" the final outcome, often, but not strictly, in a chronological sense. Their proximity depends, primarily, on their specific causal relationship with the outcome, and with each other, since certain forces may depend upon others. Nevertheless, sequencing is important. Each "layer" of conditions—described below—shapes and structures the next, removing certain possibilities and favoring others.

- *Background conditions*—visualized on the left-hand side of Figure 1—were those that informed the design of the Paris Agreement in a general way, enabling a wide range of possibilities across different time periods, and imposing few constraints as a result. For instance, the science of climate change shaped ideas about the costs and benefits of climate action and helped to define the overall temperature goals. However, it did not significantly restrict design options, apart from those that would have set a target for global temperature rise above 2°C. In this way, background conditions may shape expectations of what a legitimate treaty would look like. Actors' perceptions of what constitutes an appropriate response to the problem at hand can be broadly set in this way. Thus, as with Simeon's (1976) description of the role played by the "socioeconomic environment," background conditions are necessary conditions that may restrict certain actions in a broad sense but remain compatible with many outcomes.

- *Intermediate* causes—similar to the "fundamental political variables" described by Simeon—operate within the background conditions and set the terms for more proximate causes. In the case at hand, some of these factors focus on the institutional legacies of the climate regime, while others include constraints placed on the negotiations by states' preferences. Path dependence and bargaining are important, yet distinct, mechanisms, which operate within a common context set by

background causes. Both then further delimited the menu of acceptable options, but not completely. They exclude many possibilities at a particular point in time but still do not fully determine the outcome.

- *Proximate* causes—those Simeon associates with the decision-making process itself—occur within a highly constrained environment, as many possible designs have already been excluded. Background and intermediate conditions have ruled out options, and proximate causes tend to entail the active selection of design features. Individual agency becomes more evident as negotiators bargain over the remaining clauses, and, in this case, Secretariat staff and host country diplomats try to encourage states to embrace pa articular formulation. Actors strategize to promote (or pressure others to accept) certain designs that will garner support from actors that could legitimize or delegitimize the nascent treaty. The agency of the French COP Presidency team can be understood in this way, for instance. Its contributions were important, but primarily because they guided the negotiations towards a point within a set of possibilities already constrained by broader causal forces.

At each stage, we argue, the process that produced Paris was shaped by a range of causal mechanisms, including path dependence, bargaining, leadership, and legitimacy considerations, with considerable pedigree in the study of institutional design and change. Often, each is studied in isolation. Our aim here is not to uncover how each mechanism operates or to offer new insights to this considerable literature. Instead, we explore how a particular *combination* of interrelated causal dynamics influenced the design of the Paris Agreement. Each specific factor in our analytical narrative is grounded in already-established understandings of institutional design in IR and existing accounts of the Paris Agreement. These mechanisms were all at play, we show, but in different ways and at different times, a dynamic existing literature misses. In what follows, we identify the most important factors, presenting a synthetic account of the Paris negotiations. We aim to demonstrate how each causal layer contributed to the design of the Paris Agreement, explaining what was taken for granted, how factors at each stage pushed states towards

certain design options or excluded others from consideration, and, eventually, how these produced a global deal that proved satisfactory to most states.

4. The Background to Paris: Science and Non-state Actors

The background conditions we highlight each shaped the Paris Agreement in a broad sense. These largely exogenous forces, which to varying degrees were in place in earlier negotiations, promoted ideas of what would constitute a legitimate agreement—most importantly, by shaping the overarching objective of Paris, promoting ambition, and encouraging states to grant non-state actors some role in the arrangement—but left many key design choices open to settlement. In combination, these forces were quite different from those that prevailed during the negotiations leading to Kyoto. But they had begun to take shape in the period prior to, during, and after Copenhagen and became particularly important in the lead-up to Paris. Overall, while necessary for agreement, they constrained the *design* of the Agreement to only a modest extent.

The first of these conditions was the solidified scientific consensus on the dangers of climate change and the development of clearer models that differentiated the effects of 1.5°C from 2°C of global warming. Before Copenhagen, in 2007, when the Intergovernmental Panel on Climate Change (IPCC) won the Nobel Peace Prize, the consensus was that climate change is unequivocal, anthropogenic, and had pronounced effects. This was a prerequisite for bold action. But science was especially notable, at this point, for arriving at a remarkably strong consensus on what constituted "dangerous anthropogenic interference": a 2°C rise above pre-industrial temperature levels. This target first emerged as a suggestion from the EU in the mid-1990s (Randalls 2010). However, it became a key reference point for many scientific studies in the years after. Following the IPCC's Fourth Assessment Report, these studies were then a valuable resource for building political consensus and the Copenhagen Accord later included it—solidifying its status as an overarching goal. By 2011, it was largely taken for granted as the central objective for global efforts. Indeed, when states launched negotiations for what would become the Paris Agreement, while "parties held different views about the expression of the UNFCCC's

principles, the scope of the agreement, and the legal form of the final results… the 2°C global temperature target seemed indisputable" (Gao, Gao, and Zhang 2017, p. 276).

Thereafter, other possibilities, like a higher temperature goal, were off the table. But this still left significant room for disagreement over the mechanisms for meeting the agreed limit. It also left room for even more ambitious action. The debate around the 1.5°C target provides an example. Countries requested IPCC experts to present the results of the Fifth Assessment Report (published in 2014) to the Structured Expert Dialogue, a forum established to support a review of the 2°C temperature goal. Throughout these discussions, negotiators (especially those from AOSIS) drew upon this science to reframe 1.5°C as a "guard rail" against the most dangerous impacts. But a coalition that included Saudi Arabia, China and India disputed this lower limit.[2] As a background condition, therefore, science was a resource that actors could draw upon, but still allowed various formulations and approaches. Other intermediate factors and proximate conditions were crucial for securing the surprisingly ambitious 1.5°C target, as discussed later.[3]

The second background dynamic driving the Paris Agreement's design was the mobilization of non-state actors. Large-scale protests around climate meetings began in Copenhagen, putting pressure on politicians, especially within developed countries. This level of mobilization was, in part, achieved through a diversification of civil society actors that brought new tactics of protest and civil disobedience (Allan 2018; Hadden 2015). This more diverse landscape meant, too, that many now claimed to be directly contributing to climate solutions. From cities to businesses to communities, thousands of non-state actors logged climate pledges and actions in the lead-up to Paris. Such efforts were only partially exogenous since public actors within the process explicitly attempted to mobilize a groundswell of actors. In September 2014, for instance, the UN Secretary General hosted

[2] Participant observation in the 2013-2015 Review contact group and Structured Expert Dialogue, 2012-2015.

[3] Interviews with Laurent Fabius, 2016 Interview with Xie Zhenghua, Vice-Chairman National Development and Reform Commission and Head of Chinese delegation at the UNFCCC. Interview in Beijing, 2017; Interview with Paul Watkinson, COP21 Presidency Team and Chief Negotiator for France, 2016 in Paris.

a summit of countries and other actors, and the governments of Peru (host of COP20) and France worked with the UN and the UNFCCC Secretariats to galvanize support through the "Lima-Paris Action Agenda." UNFCCC Executive Secretary Christiana Figueres, in turn, created a "Groundswell" team to drive non-state actor mobilization (Hale 2016).

This effort was designed, in part, to pressure states to reach an agreement.[4] However, it built on and recognized the actions that had already been taken independently of states, largely in response to their own inaction. Ultimately, this still left much open. Its biggest role was to create an incentive for action—what the protagonists termed, "mood music"—and, in some cases, placed costs on politicians that were insufficiently ambitious.[5] It also helped to demonstrate that the costs of ambitious action were decreasing. Since Kyoto, the costs of many important technologies—electric cars, solar photovoltaics, etc.—had fallen (IRENA 2019), facilitating a shift in the business community. New assessments by corporate leaders, such as the Global Commission on the Economy and Climate, began to reframe the relationship between the climate and global economy.[6] But beyond this, the growing scale of action by non-state actors also spurred recognition of the role they could play. An agreement that involved them in some way was increasingly accepted, too.

Overall, these conditions set the bar. They showed that a climate agreement should be broadly ambitious, must include a science-based target, and should likely include some role for nonstate actors. Anything less could be regarded as falling short of expectations. At the same time, while these were important, they only moderately constrained the set of possible designs. They helped define an overarching goal and the outer contours of what an appropriate response might look like. But other, more intermediate drivers would play a larger part in defining the deal states would reach.

5. Intermediate Factors: Institutional Legacies and States' Red Lines

[4] Interview with Paul Watkinson, 2016.
[5] Interview with Laurent Fabius, 2016.
[6] Interview with Catherine McKenna, Minister of Environment and Climate Change Canada during COP21 and co-facilitator of ministerial negotiations on cooperative approaches. Interview in 2016 in Ottawa, Canada.

We identify two types of intermediate causes: the historical legacies of earlier institutional developments and the demands of states. Both reduced the number of design options available for the Paris Agreement, but in different ways. One largely relies on path dependence, particularly how states sought to protect previous institutional gains that themselves held legitimacy through previous agreements; the other on bargaining, namely how negotiators sought to appease powerful states and coalitions, while affording enough wins to vulnerable ones to keep everyone on board. Consider each in turn.

Institutional Legacies

Three institutional legacies stand out: past failures, the design of previous agreements, and key principles, such as CBDRRC. These three institutions established incentives and mental models that nearly all actors closely followed when negotiating the Paris Agreement. They also reinforced some later demands, which is why we place these analytically prior in our account. First, the specter of failure has often been present in UNFCCC negotiations. After quickly adopting the Convention in 1992 and the Kyoto Protocol in 1997, momentum stalled. Kyoto did not enter into force until 2005. It proved difficult to attain sufficient ratifications without US participation, a lesson that would strengthen negotiators' resolve to secure American participation (and, in turn, bolster its negotiating position, as we discuss below). But, by the time Kyoto was ready to be implemented, it was already labelled a failure. Although most industrialized countries met their Kyoto targets, many regarded the approach as flawed (Rosen 2015; Victor 2011). This, accordingly, made a model along these lines less palatable.

The second failure came in Copenhagen and ultimately helped to raise the likelihood of realizing the Paris Agreement. Parties failed in front of the largest media and civil society presence ever amassed at a climate conference (IISD 2009). Arriving in Copenhagen with a 200+ page draft and leaving with a five-page Accord that was only "taken note of"—not adopted—hurt the legitimacy of the UNFCCC. The Danish hosts, the US, China, the others involved in the secret negotiations, and those countries that blocked the deal all shared blame (IISD 2009; Rajamani 2010). Chinese delegates felt the blame leveled at China was unfair, after it had "made concessions [on reporting systems] that led to the final

agreement."[7] The failure suffered in Copenhagen put pressure on states that wanted to avoid blame. It also would influence France's calculation of the risks of failure when it chose to host the 2015 meeting. As COP President Laurent Fabius explained, citing the pressure to avoid another high-profile failure: "the real risk was not complete failure, but a minimal agreement."[8] Protecting the UNFCCC's legitimacy was a real concern.

Copenhagen also affected the negotiations by explicitly orienting climate governance around a "bottom-up" model. Already, prior to Copenhagen, the US had begun to push for this sort of approach. When parties failed to adopt the Accord, it worked to build support, even threatening to withdraw aid from countries that did not submit a pledge, as revealed by WikiLeaks (Carrington 2010). The decisions in Cancun one year later would be agreed by consensus (although COP President Patricia Espinosa gaveled over Bolivia's objection) and would cement the legitimacy of the approach. In Warsaw, in 2013, countries agreed that the concept of intended NDCs would form the basis of the negotiations. While terminology—contributions, commitments, or plans—continued to be debated, the outcome would follow the path set by Copenhagen. And it would receive further support, as we explain below, through state demands, particularly the great powers.

The final institutional legacy that constrained the Agreement's design was the principle of CBDRRC and, relatedly, the division of countries into two annexes. Dividing countries into two groups, each with differing levels of responsibilities, proved difficult to abandon, even in a bottom-up approach. For example, Brazil's concentric circles idea, which would ascribe responsibility for mitigation according to countries' responsibility for causing climate change, failed to gain support when introduced in 2014. Similarly, requests to change the annexes, such as Turkey's effort to be reclassified as a non-Annex I country, were opposed before and after the Paris Agreement's adoption.[9] At best, states could sidestep the annex system by using terms such as developing countries (which has no formal definition), not do away with it altogether.

[7] Interview with Xie Zhenghua, 2017.
[8] Interview with Laurent Fabius, 2016.
[9] Participant observation 2012-2019

Thus, institutional legacies narrowed design options. The decisions made at meetings between 2007 and 2014 progressively excluded certain institutional features, reducing the set of possibilities. Essentially, Paris could only be bottom-up, although there was still a chance for proposals including international oversight or pre-review of contributions. Negotiators would have to treat developed and developing countries differently but could still move away from the binary "firewall" enshrined in the Convention. Design options for the ratchet mechanism, the legal form of the agreement, and overall goals of the treaty were less affected by these factors. Countries' positions shaped these aspects of the Agreement more fundamentally, as we will see next. And, to avoid failure, a few divisive issues were handled by reiterating existing climate policy (as with loss and damage) or punting decisions to the future (as with market mechanisms) (Allan 2019).

States' Red Lines

Specific countries had preferences regarding the Agreement's design that were important as well. We identify several clusters of demands related to several distinct design features. While all states have national positions, of course, the "red lines" of great powers and key coalitions mattered most. Great power participation was necessary, given their contribution to the problem and recognition that US non-participation had undermined Kyoto.. After the lack of transparency and inclusivity in Copenhagen, there was a strong sense that none could be left behind. As Fabius put it "it could not be a G2 agreement extended to all,"[10] meaning that, to gain legitimacy, Paris needed the endorsement of vulnerable countries, such as those in AOSIS or the Least Developed Countries (LDCs). The demands of these actors—the US, EU, emerging economies, and vulnerable states, especially—narrowed options further. Indeed, much of the final design of the treaty can be understood as a product of efforts to meet their requirements while working within the institutional legacies and broader background conditions already discussed.

[10] Interview with Laurent Fabuis, 2016

As Fabius has noted, the US position was one of the limits to creating a more ambitious agreement. The US made considerable demands for its participation, but, most prominently, asked that the agreement include symmetrical commitments. In advance of Kyoto, the US Senate had passed the Byrd-Hagel resolution, which stipulated that US participation in any climate treaty required emerging economies to have commensurate responsibilities for reducing emissions. From the late 1990s onwards, as a result, US involvement would require commitments similar to those of China, India, and other emerging economies. Additionally, the negotiations were shaped by what Kemp (2016) has referred to as the "ratification straightjacket." Understanding that a Republican-dominated Senate would be unlikely to ratify a fully-fledged treaty, the Obama administration planned to adopt the agreement by executive order. Practically, this meant the US could not agree to actions beyond current domestic efforts. NDCs, therefore, had to be nationally determined, and their contents could only be prescribed in the most limited way.

While the US was outspoken about this particular red line, this position was aligned with what others wanted, especially China.[11] Chinese negotiators brought three major demands to the bargaining table. First, with the US, they thought that pledges should be made independently. In 2014, the Central Party Committee and State Council decided to peak its emissions in 2030 and reduce its CO_2 emissions per unit of GDP by 60-65% below 2005 levels.[12] This position was viewed positively, as an internal shift toward climate-friendly development by COP leadership, and, as China's lead negotiator explained, internally "we decided based on our own needs, not due to pressure from other countries… to elevate climate change to the strategic level."[13] The peaking target signalled that China would focus on the carbon intensity of its economy. It would not accept a quantified, absolute target, as some had hoped. And it was firm on this stance—this was not up for negotiation. Second, the Agreement would have to uphold CBDRRC and equity as key principles. This meant, specifically, that developed countries should take the lead on climate action and

[11] Interview with Laurent Fabius, 2016.
[12] Interview with Xie Zhenghua, 2017.
[13] Interview with Xie Zhenghua, 2017.

finance. In its view, the US should provide finance through mechanisms like the Green Climate Fund, while China could initiate South-South collaboration. Third, China was skeptical about the ratchet-up mechanism. Hoping to preserve its status as a non-Annex I country, China objected to holding a Global Stocktake every five years. It feared that this arrangement would imply that Paris would last indefinitely and, perhaps, represent a new regime, replacing the Convention.[14]

The EU, representing most of the countries that met their Kyoto targets, had its own long-standing demands. The most pressing was for the new agreement to be sufficiently ambitious. In the context of negotiations that were orienting around "bottom-up' mechanisms, whether or not the agreement was legally binding in nature was critical since this was seen to be necessary to reassure European publics that their commitments would be reciprocated and held to by others, particularly after the debacle in Copenhagen. Thus, after a marathon negotiation, in 2011, the EU was widely credited with brokering the Durban mandate language that re-started negotiations, "to develop a protocol, another legal instrument or an agreed outcome with legal force under the Convention applicable to all Parties" (UNFCCC decision 1/CP.17). Subsequently, this was a key constraint that significantly reduced the scope for non-binding approaches. At least some nod to legality was necessary for a successful outcome.

For those most vulnerable, especially LDCs and AOSIS members, questions of differentiation were less important than increasing ambition and safeguarding their futures. In this, they were largely aligned with the EU, a fact which strengthened their collective demands. LDCs and SIDS asked for "flexibilities" in reporting in recognition of their limited capacity to develop complex inventories that would log their negligible emissions. Beyond that, they wanted a binding agreement and a strong mechanism for increasing commitments over time. Both also pushed for the 1.5°C goal and inclusion of a "no backsliding principle." Opposed by major emitters, these vulnerable states also asked for rules on loss and damage, a phrase denoting permanent, detrimental effects of climate

[14] Interview with Xie Zhenghua, 2017.

change beyond what can be adapted to. SIDS and LDCs envisioned a robust mechanism that would include liability charges and a climate displacement facility.

The positions of these key countries and coalitions significantly constrained possibilities. The agreement would have to widen participation sufficiently to appease the US while treating developed and developing countries differently enough for emerging economies to sign on. This combination challenged traditional approaches to treaty making and prevailing notions of "climate ambition." Since pledging approaches risked lowest common denominator outcomes, the agreement needed mechanisms to raise ambition over time, particularly since vulnerable countries were conceding to a bottom-up approach. But, the US and Chinese stance on the nationally-determined nature of contributions took any international review of pledges prior to Paris off the table.[15]

Working within the limits of a bottom-up treaty that followed CBDRRC and other principles left few design options that would meet countries' demands. To meet US demands for participation and China's demands for differentiation, pledges had to, as the US often put it, "allow differentiation 195 ways" (IISD 2015). But some semblance of "classic" differentiation remained viable: in Copenhagen, developed countries had agreed to an economy-wide mitigation target; developing countries could select among a range of approaches (peaking targets, plans, etc.), although they would be expected to move toward a quantified target over time. This arrangement stitched together the US and Chinese demands on differentiation and the scope of participation (Rajamani 2016).

To bring the EU and vulnerable countries on board, these features had to be housed in a binding agreement. If the contents of NDCs were to be nationally determined, to satisfy the US and China, then making the submission and national reporting procedures "binding" on states was necessary to create a "win" for these actors. Although the Agreement does not regulate the content of NDCs, its rulebook specifies what information should be included to facilitate clarity, transparency, and understanding. These provisions partly

[15] Participant observation, 2013-2014

addressed ambition-related demands and could change the politics of climate change later on: more similar NDCs would be easier to aggregate to gain a fuller picture of global action, providing resources for future mobilization at the domestic and international levels.

Once background and intermediate factors are accounted for, much of the Paris Agreement's design was set. Three of the five major features we identified above were effectively settled. To reach agreement, the scope of participation had to be wide (to meet US demands), and this was facilitated by the institutional legacy of the bottom-up pledging system. NDCs would be nationally-determined and there was a liberal interpretation of what they could entail. This model, which included differentiation, helped to lower the barriers to participation by major emerging economies, setting the nature of the commitments. And, for Europe and the vulnerable states, as noted, the Agreement had to be binding. The remaining decisions were important, but few—and influenced by more proximate factors.

6. Proximate Factors: Leadership and Coalition-building in Paris

As 2015 progressed, negotiations remained slow. Parties were reluctant to take options off the table. But, as discussed above, many options had been effectively ruled out if major countries and coalitions were going to adopt the agreement. The strategies of specific actors in the negotiations, working within this delimited set of possibilities, proved crucial to securing the final components of the deal related to climate ambition: the 1.5°C target and the ratchet-up mechanism. These were key demands of vulnerable countries, and crucial for agreement. Without their sign-on, a Copenhagen-level fiasco may have occurred. However, others played an important role in steering parties toward common ground. Here, therefore, we highlight the entrepreneurship of several actors for the overall design: the French COP Presidency and the UNFCCC Secretariat, US and Chinese diplomats, and those in the High-Ambition Coalition.

The Presidency helped gain agreement on including the 1.5°C target, climate justice in the preamble, and a more ambitious Global Stocktake, all of which were important for

developing countries.[16] Major economies were particularly important in French strategizing. President Hollande met with Chinese President Xi before COP21, reaching agreement on the 1.5°C target and discussing the five-year Stocktake.[17] France also worked to win over India, seen as a possible spoiler, through visits to Prime Minister Modi to sell the Stocktake and transparency mechanisms, promising to include references to climate justice in return.[18] France also collaborated with India to launch the International Solar Alliance, facilitating Indian leadership on a national priority.

At the COP itself, the Presidency convened transparent and inclusive negotiations, removing any possibility of blocking agreement on procedural grounds. According to members of the Presidency team, they aimed to learn from past experiences to avoid the kind of debacle that occurred in Copenhagen when drafting text and a secret Presidency text were leaked, and inter-ministerial divisions compromised the Presidency team.[19] Instead, the French kept close control of draft texts and verbally briefed delegations on the status of the agreement each day. To the surprise of many, there was no Presidency text waiting to be dropped in, although both the Secretariat and the Presidency had identified "landing zones" where core issues were likely to end up. Effectively, parties were on their own to succeed or fail.[20] As negotiations started to involve ministers, the Presidency chose co-chairs of *indabas*—ministerial meetings that were first employed during the South African Presidency, in 2011—from developed and developing countries, equally, with special care to include traditional "spoiler" countries.

Ministers identified the remaining trade-offs in these overnight *indabas*. Their discussions were then transformed into text by technical negotiators and the Presidency team, then refined through bilateral discussions by day.[21] In the evening, the Comité de Paris—a

[16] Interview with Laurent Fabius, 2016.
[17] Interview with Xie Zhengua, 2017.
[18] Interview with Laurent Fabius, 2016; Interview with Antione Michon, COP21 Presidency Team, 2016.
[19] Interviews with Paul Watkinson and Antoine Michon, COP21 Presidency Team, Ministry of Foreign Affairs, in Paris, 2016.
[20] Interview with Paul Watkinson, 2016.
[21] Interview with Paul Watkinson, 2016.

meeting open to all parties—would review progress and send ministers back to *indabas* to work overnight. No party could claim they were not apprised; the motto "no surprises" was central to the Presidency team's effort.[22] While some have argued that backroom deals were important to the outcome (Dimitrov 2016), few were evident during the negotiations in Paris.[23] All delegates had opportunities to raise concerns.

States nevertheless engaged in strategic alliances in 2015 to put pressure on others. Here, American-Chinese cooperation was crucial.[24] The US and China had issued bilateral agreements in 2014 and 2015. The 2014 agreement, part of a larger deal on the margins of the APEC Summit, committed the two states to submit their INDCs early in 2015, signaling support for an ambitious treaty.[25] But the deal also laid the ground for components of the future Paris Agreement, including affirming the new interpretation of CBDRRC and cementing agreement on the nature of NDCs. They agreed that climate finance should be provided by developed countries and others "in a position to do so." This phrase was opposed by other emerging economies, but ultimately adopted in Paris. The subsequent 2015 agreement found, as Xie Zhenghua describes, "a Sino-US solution for differences, namely, the problem of binding agreement, technology, and transparency. It helped to find the key to Paris."[26] Fabius also emphasized the importance of this agreement because it mitigated US concerns about competitiveness. The agreement "was much better than having statements individually from the US and China" because others now knew that if they tried to block the Paris outcome they would not have support from either power.[27]

The US also joined the High-Ambition Coalition (though it was driven by the EU and the Marshall Islands), which helped secure some of the more surprising aspects of the agreement. The Coalition initially formed on the sidelines of ministerial meetings held in

[22] Interview with Antoine Michon, 2016.
[23] Interview with Antione Michon, 2016.
[24] Interviews with Catherine McKenna; Laurent Fabius, 2016.
[25] For the text of the agreement, see: https://obamawhitehouse.archives.gov/the-press-office/2015/09/25/us-china-joint-presidential-statement-climate-change
[26] Interview with Xie Zhengua, 2017.
[27] Interview with Laurent Fabius, 2016.

2015. Tony de Brum, Prime Minister of the Marshall Islands and Todd Stern, the US Special Envoy for Climate Change, started speaking about a broad coalition of developed/developing countries. During the COP, the Coalition became a media and NGO darling. Membership required support for 1.5°C and over 100 states signed on, effectively marginalizing states that did not. India and Saudi Arabia, especially, faced pressure to accept the lower target and, in the end, could not stop it without thwarting the whole agreement.[28] On the final day, delegates applauded COP President Fabius, French President Hollande, and members of the High-Ambition Coalition, although they had not yet seen the complete text. Ultimately, it papered over some issues that required additional negotiations—the Paris rulebook, especially—or kicked issues down the road, like finance and loss and damage. But the Paris Agreement, in the form that we know it, was born.

7. Conclusion

Ultimately, it is still too early to tell if the Paris Agreement will prove effective. Thanks to its unique design, it may well offer a way of ramping up climate action. But only future generations will be positioned to judge its success. Paris is, nevertheless, a remarkable instance of international treaty-making. Scholars have rightly explored the dynamics underpinning its "success." But, we argue, more attention needs to be paid to questions of institutional design. Our analysis shows how factors identified in previous accounts can help to explain the agreement's puzzling design but tell only part of the story. Building upon this work, we have offered a theoretically thick account that acknowledges several different dynamics and, at the same time, identifies their distinct causal roles. Drawing on insights from studies of the onset of war and the drivers of public policy, we showed that the final success and particular provisions of Paris were the joint product of several background factors, institutional legacies, complex bargaining, and coalition-building.

This approach allows us to complement the existing scholarship on institutional design by grappling with the historic, messy dynamics that shaped the global deal. Our account demonstrates that producing an agreement was hardly a process of "rational" design as

[28] Interview with Catherine McKenna, 2016.

some scholars of international cooperation might expect (such as Koremenos 2016). The final treaty is not a tidy way to address the underlying structure of the climate problem. It was the outcome, instead, of several nested political deals and causal forces that structured decisions and shaped, step-by-step, the contours of the treaty. The Paris Agreement is, fascinatingly, an arrangement that fits within the bounds of what was politically possible and simultaneously demonstrates the importance of individual agents pushing towards the outer limits of that realm. Leadership took place within narrow constraints—as earlier dynamics shaped later design options—but proved critical all the same.

Our historical analysis identifies considerable contingency and reveals the difficulties inherent in generating sweeping conclusions about the conditions that explain treaty design in specific instances. Looking at Paris highlights the extent to which international agreements reflect the interplay between several dynamics. None of those we identify as relevant are entirely new. Many—leadership, great power politics, etc.—have been the subjects of earlier studies and were present in some form since the beginning of the climate negotiations. As a discipline, we know that each can matter. But, collectively, we are only beginning to understand how they interact in individual cases of international treaty making and how their role can evolve over time and across contexts. The approach we rely on identifies important relationships between these causal forces. Yet, ultimately, it is only a first step. New information may lead us to reevaluate certain claims. As new dimensions of the negotiations are investigated, classifications may be revised, and additional background, intermediate and proximate factors may be appended. But the framework that we outline offers a solid foundation to build on, as scholars move forward in their efforts to understand the making of the Paris Agreement. It offers, above all, a way to engage in a more systematic discussion about what mattered—and why.

This may be true of other areas as well, from international trade and finance to security and global health. Across all these areas, treaties and other important instances of cooperation often have long historical lineages, are the product of multiple intersecting dynamics, and rarely appear *de novo*. They are, accordingly, challenging to study in a systematic way and the mode of analysis that scholars typically adopt, while well-suited to understanding the

effects of particular causes across a large number of cases, does not provide leverage when we want to explore the complex drivers at work in specific historical events. The methodological approach we use here is, we believe, well placed to exploring these processes . Already, its value has been demonstrated to understand unique historical outcomes, helping researchers to categorize and make sense of various factors' contributions to the onset of wars, voting decisions, and public policymaking within states. But, thus far, it has seldom been applied to the study of international treatymaking—or the study of global governance, more broadly. Suitably adapted, as we have attempted here in order to shed light on historical processes underlying the design of the Paris Agreement, we think it has much to contribute.

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