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It's About Time

Explaining Change in United Nations Environmental Institutions

Despite significant transformations in the broader international system, including the emergence of pressing cooperation problems and shifts in the global distribution of capabilities, international institutions have proven highly resistant to change. When change has occurred, it has often been incremental in nature, failing to reflect the scale of the transition in the wider global system. Within UN environmental institutions, for instance, growing fragmentation saps the capacity of states to tackle cross-cutting threats to earth systems. The poor fit between leading international institutions and current realities has eroded the legitimacy of many global bodies and affected the willingness of states to contribute political, economic, and military resources to multinational efforts. As material and ideational incentives mount progressively and cooperation problems intensify, states face a growing reason to overcome impediments to coordination and realize significant institutional change.

Chapter 1 established that large-scale change requires a coordinated effort from a wider array of international actors than is often recognized. Indeed, high complexity – and the collective action problems associated therewith – may be a key differentiating feature between domestic and international political contexts.¹ The complexity of international policymaking and negotiation renders swift collective decision-making a significant challenge.² In addition to a large number of states, non-state and sub-state actors are important players that can affect reform efforts. While they are rarely able to block change, these actors are a latent force in institutional life that have the capacity to enrich the bargaining context in a manner that can open the door to punctuated change. They do this, principally, through the informational and political conditions shaping state preferences.

¹ Zürn 2016, 205–206. For a discussion, see: Weibust 2009.

² Hampson and Hart 1999.

Such complexities make coordination difficult. Temporal coordination dilemmas can prevent international actors from enjoying the accumulated benefits associated with revising institutional structures to meet changed international conditions. Such dilemmas are defined by the ongoing difficulty of getting all actors to invest in institutional change processes on a concurrent timeline, despite their self-interest in doing so. All things being equal, the larger the number of consequential players, the more difficult it is to get all actors on the same page at the same time. These actors are, furthermore, highly diverse in their size, economic situation, regime type, regional context, linguistic profile, and historical experience. This affects coordination efforts. The matter is not as simple as adding an item to the intergovernmental agenda, scheduling a conference, and setting a deadline. Formal consideration does not necessarily entail serious or purposeful bargaining.³ For substantive negotiations to occur, there must be a convergence of expectations among actors on some point in time. If important parties are unwilling or unable to engage in serious talks, the institutional status quo will prevail. Reaching such a point is difficult, given the progressive manner in which incentives to revise institutional arrangements typically mount.

The preceding analysis suggests that reform efforts in large-*n* contexts can face significant difficulties. As James D. Fearon's work on institutional bargaining demonstrates, the bargaining phase of international cooperation can resemble a war of attrition game. When agreements are enforceable and the shadow of the future is long, actors are incentivized to hold out as long as possible in bargaining for the best possible agreement, incurring costs of delay, so as to secure anticipated future gains.⁴ When the stakes are high, reaching agreement is complicated. Fearon's conclusions are, moreover, derived from a two-player game and thus do not grapple with the complexities experienced in multilateral institutions. When projected onto a multilateral canvas, temporal coordination challenges, not accounted for in Fearon's treatment, come to the fore. Indeed, as Lisa L. Martin notes, the resolution of assurance games can be highly sensitive to the

³ Indeed, routinized discussions can serve as a vehicle for "counter-diplomacy," in which ongoing conversations are used as a vehicle to "evade or frustrate political solutions or international rules," while appearing constructive. See: Barston 2019, 5.

⁴ Fearon 1998.

assumption that states are behaving as rational, unitary actors.⁵ When actors are non-unitary and intra-state negotiations are divisive, as is so often the case when governments bargain over institutional change, coordination can be fraught. For instance, in two-player coordination games, one side can effectively “force” the other into cooperating by signaling its intentions and pre-committing to a preferred outcome. This can be difficult when different domestic factions increase the level of uncertainty about the other side’s expected behavior. Such a maneuver is especially complicated in large-n contexts both because it is less clear that a sufficiently large number of players will cooperate and because, even when feasible, effective signaling can be costly. Thus, even when the aims of institutional change are primarily positive-sum in nature, focused on capturing new available gains rather than targeting zero-sum redistribution, change can be hindered greatly by coordination dilemmas.⁶

This process is further complicated by the fact that challenging or reassessing – let alone changing – institutional structures is a costly enterprise. Even the most well-resourced states and departments face constraints. To prepare for talks, governments invest heavy analytical resources for diagnosing institutional problems and devising alternatives. Information on complex issues must be gathered and intelligence on the bargaining positions of other states accumulated. Task forces may need to be established and the attention of harried decision-makers demanded. Negotiations to change cooperative arrangements are, by definition, extraordinarily relative to the normal state of affairs. The authority delegated to policy-makers through established, routine operating procedures is exceeded, thereby increasing transaction costs.

Actors wishing to call institutional structures into question invest political resources in their efforts and may forego benefits normally accruing from the institution in question. Diplomatic capital is spent seeking to build support among pivotal players and to kick-start negotiations. This valuable and limited currency is commonly purchased through vote trading, military commitments, or development assistance. By calling in diplomatic favors or making promises of future reciprocity, reformers expend scarce assets. States spearheading calls for reform also

⁵ Martin 1992, 780–783.

⁶ For accounts focused on redistribution issues, see: Kruck and Zangl 2020; Lipsy 2017.

invest national prestige in their effort and failure can be embarrassing. Unsuccessful initiatives affect the political fortunes of governments and result in reputational damage. Reformers also have fewer resources to pursue other policy initiatives of national importance or to exercise influence on organizations. Agenda space or voice opportunities utilized in advancing reform cannot be employed in pursuing other priorities. Far from cheap talk, these costs are real and significant.

The process of calling current patterns of behavior into question can also erode the legitimacy of existing institutional arrangements. Even when prevailing norms, rules, and procedures remain unaltered, the contested state of institutional arrangements can invite future challenges to the regime. While these challenges may be highly visible, they can also be small and almost imperceptible. As rules lose their legitimacy, for example, a gap can emerge between rules “on paper” and their implementation “on the ground.” The unsettled state of affairs may support the rise of various types of change agents that can act – intentionally or unintentionally – to alter institutional practice by pursuing their distributive aims.⁷ This circumstance may be the product of self-undermining processes that progressively diminish the status of institutions.

In pursuing institutional change, actors therefore assume important risks that, if others do not act in concert with them, they will end up worse off than if they had not challenged the existing order. The best response of each is to choose the course of action that it expects others to choose: If a large proportion of relevant actors do not elect to enter into serious negotiations to alter institutional arrangements, none should.⁸ Getting many diverse players onto the same page is difficult. Coordination is hampered greatly by communication problems. At the international level, bargaining includes multiple parties and issues, resulting in enormous complexity. This coordination problem is, fundamentally, a question of timing. Unless relevant actors’ expectations converge on a specific time when they expect others to expect to be expected to behave in a certain manner, they cannot coordinate.⁹

⁷ For a discussion of the role of different types of change agents, see: Mahoney and Thelen 2010, 22–27.

⁸ This does not mean that *all* actors necessarily must be onside. It does, however, mean that actors’ decision of whether to act cooperatively depends on the number of actors participating. This is similar to Schelling’s concept of “k-groups.” See: Schelling 1973.

⁹ Phrasing taken from: Schelling 1960, 57.

Table 2.1 *Matrix of temporal coordination*

		Side 2	
		T_1	T_∞
Side 1	T_1	A, W	D, X
	T_∞	B, Z	C, Y

Here, the following relations hold:
 $A > B \geq C > D$
 $W > X \geq Y > Z$

Convergent expectations are thus the key to resolving the temporal coordination problems associated with institutional change. Compared to exogenous shocks, which precipitate a crisis situation, exogenous shifts, self-undermining processes, or reactive sequences often lack a comparable temporal coordination mechanism.

The matrix below illustrates the choice situation facing states and relevant international actors. In the presence of incentives to alter institutions, all sides have an opportunity to coordinate their behavioral expectations on the earliest available time frame (T_1). The temporal alternative that they face is an undefined, indeterminate point in the future (T_∞). At the existing, status quo equilibrium, therefore, sides play T_∞ , as institutional bargaining is not under active consideration. However, all stand to benefit from acting in concert if they are able to coordinate. Outcomes A and W are the best for each side, since they receive their largest payoff. The danger that each player encounters is that, should they seek to coordinate at T_1 and the other side opts for the indeterminate timeline, they will end up with their worst outcome (D or Z). The less risky choice for each is to maintain the existing equilibrium. By putting off negotiations to some undefined point in the future, they avoid their worst result and receive their next best outcomes (B, C or X, Y). This scenario is classically labeled a stag hunt after Jean-Jacques Rousseau's parable (see Table 2.1).¹⁰

¹⁰ In the stag hunt game, the actors choose simultaneously whether to hunt a stag or a rabbit. Each is able to hunt and catch a rabbit without the aid of the other. Although rabbits provide a small payoff, the stag – even when divided between the two hunters – offers more. The appeal of the rabbit is that the hunters' ability to capture it does not rest on the actions of the other hunter. If, however, both are able to concert their expectations and hunt a stag, each side will be better off. See: Rousseau 1984, 111.

In the presence of incentives to alter cooperative arrangements, actors therefore can enjoy a superior institutional alternative immediately if they are able to coordinate. The stag hunt game assumes the existence of a uniquely efficient solution to the temporal coordination dilemma described above. This is because, in the presence of available joint gains, states receive their maximum possible payoff by moving immediately to introduce alternative institutional arrangements.¹¹ Lingering at payoff-dominated equilibria is, from this perspective, suboptimal. The payoffs listed in the matrix above do not, therefore, correspond to those associated with different agreement possibilities, as is conventionally the case in a game theoretic setup. Actors are not coordinating here on different agreement possibilities. Instead, the payoffs listed are derived from enjoying the benefits of a fixed Pareto-superior alternative sooner. To highlight the coordination dilemma facing international actors in altering institutions, therefore, I assume that the superiority of revising institutional structures relative to the status quo is held *constant* in the coordination versus the non-coordination scenarios. Thus, the only difference between acting at T_1 and T_∞ is the possibility of seizing anticipated benefits sooner. States can, for example, enjoy the benefits of *the same* mutually beneficial emission reductions agreement sooner. When incentives exist to update institutions, states receive their largest payoff from acting swiftly.¹²

In the stag hunt game, there are two Nash equilibria: mutual cooperation and mutual defection. The cooperative solution is Pareto-superior, with each side receiving their highest possible payoff. If actors can concert their expectations on the stag-stag outcome, sides end up with the more efficient result. The decision to coordinate is, however, influenced also by the risk of costly coordination failure. When a player chooses to pursue institutional change, they run the risk that others will choose not to. Players who choose not to coordinate minimize risk. Here, as Brian Skryms notes, “rational players are pulled in one direction by considerations of mutual benefit and in the other by

¹¹ For a related discussion, see Calvert 1998, 75–78.

¹² Distribution problems do not factor into the temporal coordination aspect of the model, yet, as we will see in the empirical chapters, as well as in my use of negotiation analytic concepts, such as the deal-no-deal balance, distributive conflict remains essential to my analysis of institutional change. Distributive considerations factor in through the assessment of incentives to alter institutions.

considerations of personal risk.”¹³ This uncertainty makes it difficult to coordinate. Without greater certainty, actors are reluctant to assume heightened transaction costs in pursuit of available joint gains because they cannot be assured that the other side will act in concert with them. And this uncertainty is reciprocal. The uncertainty experienced by side 1 adds to the uncertainty that side 2 experiences, which correspondingly reinforces and magnifies the uncertainty of side 1. It is this dilemma that allows the payoff-dominant equilibrium to remain unrealized in favor of the risk-dominant equilibrium. The inefficient rabbit-rabbit equilibrium can thus prevail. Once the rabbit-hunting expectation is established, no actor has incentive to unilaterally defect from it.¹⁴

In a two-player game with pre-play communication, this should not be an insurmountable barrier to overcome. Signaling or pre-commitment mechanisms can allow actors to move collectively from the rabbit-rabbit scenario to the more efficient outcome. In large multilateral contexts, however, especially when actors are non-unitary, this can be complicated. Signaling is costlier in such contexts. As the number of relevant actors climbs, all things being equal, the more difficult coordination will be. In the game outlined above, side 2 represents an amalgam or composite of other relevant actors. Thus, in employing the stag hunt here, I model side 1's expectations concerning prospects for coordinated action among a large proportion of the institutional population. The higher the degree of uncertainty associated with the behavior of other relevant players, the more attractive persisting at the existing equilibrium will be. This explains the status quo bias observed in many international institutions.

Although international organizations can reduce uncertainty, including through moderating informational asymmetries, they are limited in their capacity to produce such policy-relevant information.¹⁵ Priorities have to be established in the production of information, often following the current preoccupations of member states. While well-functioning and well-resourced international organizations can contribute to reducing uncertainty, therefore, their capacity to respond

¹³ Skryms 2001.

¹⁴ There are real opportunity costs here. Costs are proportionate to the length of time actors expect to persist at inferior equilibria, multiplied by the degree of the difference between available institutional alternatives and the status quo.

¹⁵ Abbott and Snidal 1998.

efficiently to progressively emerging social problems is limited. In addition, despite the contribution of international organizations to easing collective decision-making, their size, decision rules, and the heterogeneity of preferences among members can hinder smooth adaptation.¹⁶

The coordination challenge inherent in the basic stag hunt game described above may be complicated further if we model the impact of incomplete information about the payoffs of other players.¹⁷ Indeed, coordination is the principal means through which more complete information on payoffs is amassed. This entails the possibility that no gains will be available, in part because others assess available incentives differently. While they clarify the nature and intensity of their own preferences through analytical investments, uncertainty is higher concerning the true preferences of other players.¹⁸ From the perspective of side 1, therefore, it assesses its own payoffs to be $A > B \geq C > D$, thus favoring swift coordination. Its evaluation of side 2's preferences is less certain. Here, side 1 faces the prospect of coordination with the following assessment of side 2's payoff structure:

$W > X \geq Y > Z$, with probability p
 $Y > X > Z \geq W$, with probability $1 - p$

Here, p is a measure of convergent expectations. This uncertainty is reciprocal. In a world of incomplete information and costly signaling, side 2 – a composite of other relevant actors in the system – faces similar uncertainty about the true preferences of side 1.

In the model presented, actors are receptive to indications about the true payoff structure of the other side(s) concerning the initiation of institutional change processes. It is here where a temporal convergence of expectations matters so greatly. For example, the emergence of a focal time frame could lead them to revise their assessment of the p value from 0.4 to 0.9, for example, thus heightening greatly their willingness to assume the risks associated with moving to alter

¹⁶ Lundgren et al. 2018.

¹⁷ Game theorists have done extensive work modeling games with incomplete information, including the stag hunt. See, for example, Carlsson and van Damme 1993.

¹⁸ This approach follows the work of John C. Harsanyi in modeling the impact of uncertainty in stag hunt games. I would like to thank Dane Rowlands for helpful discussions in operationalizing this extension to my model. See: Harsanyi 1973.

institutions. Conversely, divergent expectations owing to a lack of clear temporal landmarks entail high risks of coordination failure. In such settings, actors are more reluctant to pursue change, making the institutional status quo more attractive. In these contexts, change is less likely.

Actors can, moreover, be understood as boundedly rational in the sense that they face cognitive limitations and time constraints.¹⁹ They are bounded also in one further, yet fundamental, respect: In addition to incomplete assessments of all agreement options, explaining deviation from a strict “efficiency criterion,” they do not continuously scrutinize their choices across time.²⁰ For Herbert A. Simon, the main theorist of bounded rationality, individuals regularly deviate from the efficiency criterion because they fail to consider every possible behavioral option. Acting on force of habit or reflex, decisions are not always self-conscious, deliberate, or rational. Satisficing – a theme that has been used widely in political science literature – can apply both to a lack of optimization among agreement possibilities *and* to the slow rate of grasping those possibilities. Simon’s model can thus be extended to include “temporal” satisficing, where actors do not evaluate continuously their choices. Temporal satisficing may explain lags in actors’ recognition that extant institutional arrangements are not optimal.

How Does Change Occur?

Implicit in the stag hunt game is the presence of incentives to coordinate. That is, the individual and collective benefits of coordination must exceed those available through independent action. Yet coordination often fails, leaving actors with inferior outcomes. This scenario is analogous to the widely recognized, persistent dysfunction seen in many international institutions today. Two main factors will drive individuals to act cooperatively. First, there must be incentives available for updating an institution. That is, the larger the degree of perceived superiority between the best available institutional alternative and the status quo, the greater the incentive to alter institutions. Second, expectations concerning the likelihood that other actors will

¹⁹ For a treatment of bounded rationality in institutional change efforts, see: Jupille et al. 2013.

²⁰ Simon 1961, 14, 40.

behave in a cooperative fashion are highly important for achieving coordination. When an actor believes that others will hunt stag – or, in this case, pursue institutional change – they will do so. I will discuss each of these variables in turn.

There must be a perceived incentive to alter institutions. Incentives can be material or immaterial. They can be a consequence of discrepancies between the distribution of influence within an institution, as embodied in its rules and procedures, and the wider distribution of capabilities within the international system. Outdated rules and procedures may not be an efficient response to emerging cooperation problems or give rise to governance gaps. Incentives may also be immaterial, reflecting changes in international norms, ideas, and identities. In this case, rules may not have kept pace with new principled and consensual ideas. The consequences of normative change or governance innovation may not yet be reflected within an institution. As a result of these and other factors, the legitimacy of the institutional status quo declines relative to an alternative ideational or normative framework. All of these developments open up incentives to alter institutional arrangements.

Incentives in institutional bargaining can be analyzed through assessing the deal-versus-no-deal balance among relevant players.²¹ Actors have a variety of interests in negotiations, which are impacted by changes in material or normative/ideational conditions.²² These conditions affect the underlying interests of institutional actors, thus implicating their alternatives to negotiated agreement.²³ The greater the potential value of a deal relative to the costs of impasse, the greater the incentive to update institutions. The relative positions of actors define the outer limits of the Zone of Possible Agreement (ZOPA).²⁴ A ZOPA can be opened up through capitalizing on available joint gains among actors, including through issue linkages, manipulating the parties/issues under negotiation, and the dovetailing of differences in risk attitudes, forecasts concerning unknown future contingencies,

²¹ Sebenius et al. 2018, 86–88.

²² This analysis links also to theories of “ripeness,” where a costly stalemate in negotiations can create conditions favorable to agreement. Consistent with the work of Dean G. Pruitt on “readiness theory,” I do not assume that available incentives lead inevitably to agreement. See: Pruitt 1997. On Ripeness, see: Zartman 1996.

²³ Fisher et al. 1991. ²⁴ Raiffa 1982, 45.

and time preferences. When these positions do not overlap (i.e. some actors see no deal as superior to any possible agreement), there is an adverse deal-no-deal balance and actors do not have an incentive to alter institutional arrangements. In such a circumstance, substantial change cannot occur.

It is here that distributive conflict and power politics factor into the equation. Strong alternatives to negotiated agreement provide the basis for the reservation points that define the outer limits of the ZOPA. Actors' "go-it-alone power" can be used to manipulate agreement possibilities and incentives to alter institutions, thus bringing institutional equilibria into closer alignment with structural conditions within the wider international system.²⁵ Issue linkages can be used to claim, rather than create value. Agreement among multiple possible cooperative equilibria "along the Pareto-frontier" can have sharp distributive dimensions.²⁶ As we will see in the ensuing chapters, hard bargaining and strategic competition factor heavily into the model via this variable. For those with an appetite for a bit of "blood" in their institutional analysis, this is where it is found.

Actors must also believe that others will behave in a cooperative manner by moving collectively to hunt stag or, as it were, update institutional arrangements. Total certainty in this regard does not exist. Rather, players must decide to act in the face of varying degrees of uncertainty. The decision to hunt stag manifests itself in a probabilistic estimation of the likelihood that other international actors will move to negotiate changes to existing institutional arrangements. The most dynamic factor in increasing the estimated likelihood of coordination is the emergence of a temporal convergence of expectation. Convergent expectations provide a definite time frame for institutional bargaining. A temporal convergence of expectations is the emergence of intersubjectively shared expectations of coordinated choice in time.²⁷ There is a certain hall of mirrors quality to this. The action of each actor is shaped by their expectations concerning the actions of others; which

²⁵ Gruber 2000. ²⁶ Krasner 1991.

²⁷ I want to thank Duncan Snidal for his collaboration in this definition. Relatedly, in typically spare fashion, Thomas Schelling defines convergent expectations as "the shared expectation of an outcome." For Schelling, the "outcome" is coordinated choice. Schelling also gives weight to the importance of stability in defining convergent expectations. Schelling does not, however, seek to define temporal forms of convergent expectations. See: Schelling 1958, 253–254.

are, in turn, predicated on action expectations for the first actor almost *ad infinitum*. As we shall see, such a process can be set in motion by the emergence of a focal time frame. Deals struck and concessions granted in the context of convergent expectations are thus made with a final negotiated resolution in mind, thus easing the temporal variant of the negotiator's dilemma described in Chapter 1. For the foreseeable future, actors do not anticipate granting their negotiating counterparts another bite at the apple.

Concretely, convergent expectations normally become associated with a specific outlet for negotiations. In the case of an international crisis or exogenous shock, cooperative problems that come to light as a result of that event are blended definitively and unambiguously with an institutional forum and a specific timeline when expectations converge. During the global financial crisis, for example, the November 2008 G20 Washington Summit emerged as a high-level focus for addressing a pressing economic situation. By contrast, during the 2020 novel coronavirus outbreak, no one institutional venue or timeline emerged for orchestrating a global response to the crisis. Coordination was hindered by epidemiological dynamics, including a gradual and uneven initial spread of the virus as well as variation in country impacts.²⁸ There was a temporal *divergence* of expectations. Coordination can also be achieved through other means. In the case of a Temporal Focal Point (TFP), convergent expectations are realized when international actors associate an existing institutional problem with a focal time frame. The problem of mass atrocity crimes became tied explicitly to the approaching sixtieth anniversary session of the United Nations in 2005, adding impetus to the endorsement by the UN General Assembly of the Responsibility to Protect doctrine. In this case, the explicit link between an important anniversary and a pressing problem provided a point of focus for intergovernmental negotiations.

Convergent expectations are, in this conceptualization, an emergent phenomenon. Their power does not rest in the actions or intentions of any one individual. They cannot be harnessed or controlled, for example. They are a social dynamic that emerges among groups of actors. Their salient properties are thus collective, rather than

²⁸ Patrick 2020.

Table 2.2 *Convergent expectations and change incentives*

	Convergent expectations	Divergent expectations
Incentives	Major institutional change	Suboptimal institutional status quo
No incentives	No substantive agreement, status quo persists	Self-enforcing institutional status quo

individual. Just as schools of fish or flocks of birds feature distinct behavioral characteristics, including regularized patterns of choice irreducible to the decisions of individuals, the rules governing international actors must be observed and understood collectively. No one is driving the bus, as it were. The actions of individual agents are less important than those of the whole. It is not generally possible for even well-informed actors to have a comprehensive understanding of behavior unfolding at the macro level.

These conditions – available incentives and a temporal convergence of expectations – are individually necessary and collectively sufficient to produce change of great speed, scope, and depth. When incentives exist, but actors face temporal coordination dilemmas, a suboptimal institutional status quo will persist. This is a ubiquitous circumstance in global politics today. Convergent expectations without incentives to alter institutions also cannot result in significant change. Incentives to alter institutions are the raw materials for change. Without such materials, actors have no basis for revising institutional arrangements in a substantial way. In this circumstance, states may produce joint statements lacking substance or significance to mark associated international meetings or may agree on smaller institutional amendments, but cannot fundamentally alter the institution. More often, talks will break down. When combined with incentives, however, convergent expectations will lead international actors to realize change. Table 2.2 summarizes the impact of these two conditions.

These independent variables produce two main patterns of punctuated institutional change (summarized in Table 2.3). The first, highly familiar pattern in world politics occurs when convergent expectations are achieved roughly concurrent with the emergence of incentives to

Table 2.3 *Triggers for convergent expectations in time*

	Exogenous shocks	Temporal focal points
Temporal relationship to change incentives	Concurrent	Dissociated
Associated with change incentives that emerge	Suddenly	Gradually
Common sources	Wars, depressions	Demonstration effects, anniversaries

alter institutions.²⁹ This is the exogenous shock pattern. In addition to being associated with the breakdown of the existing cooperative order, shocks are – for want of a better word – shocking. Wars, depressions, or other transformative social events have a way of focusing minds on the state of global relations. Thus, in addition to creating incentives to alter institutional arrangements, exogenous shocks generate a widespread, urgent focus among relevant players on the revision of institutional norms, rules, and procedures. This intense focus is of great significance for the reestablishment of cooperative equilibria in the wake of a shock. The intellectual and analytical resources devoted to planning peace after the World Wars, for example, were monumental. Actors inside and outside of government focused intensively on the shape of the postwar order, making heavy investments to exercise influence during these phases of institutional flux.³⁰ With shocks, the scale of change should be proportionate with what is needed to reestablish a cooperative equilibrium.

Shocks have been such an important generator of change in world affairs that international relations scholars have overlooked the extent to which shocks also generate coordination. Thus, in assessing change associated with an exogenous shock, there is risk of omitted variable bias. Shocks simultaneously produce both significant change in

²⁹ In reality, coordination quickly follows the emergence of change incentives. The institutional response is, however, comparatively seamless and, consequently, there is a minimal lag between the emergence of incentives and coordination so as to appear concurrent.

³⁰ Chapnick 2005; MacMillan 2003; Schlesinger 2004.

international conditions, the basis for new equilibria, *and* a temporal focus that facilitates coordination. The visibility and prominence of shocks helps to explain the temporal proximity of change to the conditions that helped produce it. Indeed, it is the simultaneous emergence of incentives and the need for coordination that gives exogenous shocks their bite. Also significant in dissecting the impact of shocks on institutions is the degree of proportionality between the scale of change seen and the magnitude of the shock. A strict application of the causal logic of exogenous shocks would suggest that institutional adaptation should be proportionate to what is needed to reestablish equilibrium. Change in excess of this could owe to the coordination effects derived from the shock and should be analyzed carefully when attributing large-scale change to shocks.

A second pathway to significant institutional change is when the emergence of incentives to alter institutions and convergent expectations arrive separately. That is, they are dissociated temporally. Actors have an incentive to reform institutions but remain mired in the less risky institutional status quo. Here, frustration may build as institutions underperform and as their legitimacy erodes, yet states cannot generate the coordinative impetus to address the situation. The persistent dysfunction seen in many international bodies suggests that this is a common scenario in institutional life. Much of the coordination dilemma facing states owes to the inherent status quo bias of institutions and the fact that many incentives to revise institutions emerge gradually through exogenous shifts or reactive sequences. Yet, the arrival of convergent expectations can rapidly change the equation. A temporal focus leads actors to heighten their estimation of the likelihood of coordinated institutional change efforts. In this scenario, a wide array of actors make political and analytical investments associated with institutional change processes. Such investments transform the informational and political context, leading to the clarification of preferences and a realization of previously available incentives to revise institutional structures. Previously latent preference structures are made manifest through conscious deliberation, leading to better alignment of negotiating stances on institutional questions with altered global realities.

Change seen in the context of convergent expectations adds to institutional analysis along what Johannes Gerschewski calls the “missing

diagonal.”³¹ The time horizon for the cause of institutional change in these instances can be long, at least in relation to the initial shifts in international conditions that motivated it, and exogenous. While my analysis focuses on large-scale institutional change, convergent expectations might also facilitate smaller-scale adjustments, consistent with literature on more gradual forms of institutional change. When the motivations for change are endogenous in nature, such as following the development of new principled or causal ideas, furthermore, we might see change on a short time horizon. The analysis of convergent expectations in time, therefore, helps us to understand understudied patterns of institutional continuity and transformation.

Temporal Focal Points

A temporal convergence of expectations plays an essential role in actors' capacity to realize institutional change. In the case of exogenous shocks, such a convergence is part of the package. By virtue of the shock being a shock, a temporal focus is all but assured. In cases where incentives accumulate gradually, however, reaching convergent expectations can be much more difficult. It is here that Temporal Focal Points are of special relevance.

In his *Strategy of Conflict*, Thomas Schelling provides a memorable example of a tacit coordination problem, asking how one might hope to meet someone in New York City if they could not communicate with them.³² The majority of his respondents were able to concert their expectations on Grand Central Station's information booth at noon. According to Schelling, Grand Central Station served as a coordination point because of its conspicuousness and exceptionality relative to other possibilities. These traits made the station a point of focus for his respondents, enabling a convergence of expectations.

Schelling's analogy has gained wide attention in the literature. Most of it has, correctly, focused on his main idea: In settings characterized by multiple equilibria, conspicuous focal points have great coordinative power. One aspect of the story that is often overlooked, however, is that Schelling's respondents were coordinating on two dimensions: space and time. They met at Grand Central Station *at noon*. A further dimension remains implicit in Schelling's discussion: the *date* of

³¹ Gerschewski 2021. ³² Schelling 1960, 55–56.

coordination. While coordination on multiple dimensions may be unimportant in certain settings, many social contexts involve just this challenge. Even if actors can concert their expectations on one dimension, divergent expectations on a second or third dimension can lead to coordination failure.

Could the rise of conspicuous events – such as high-profile anniversaries or visible crises – serve as a coordination mechanism for states in a manner analogous to Schelling’s concept of focal points? In the context of multiple equilibria, Schelling discusses “the intrinsic magnetism of particular outcomes, especially those that enjoy prominence, uniqueness, simplicity, precedent, or some rationale that makes them qualitatively differentiable from the continuum of possible alternatives.”³³ Just as political actors face a continuum of qualitatively undifferentiable bargaining solutions, they also face a temporal continuum of qualitatively undifferentiable bargaining timelines along which they must coordinate their behavioral expectations.

Temporal Focal Points are defined by three main features.³⁴ First, they occur within a discrete, identifiable time frame. A scarcity of temporal signposts and perceived continuities in time are the enemies of purposeful negotiation.³⁵ The perception of discontinuity or non-linearity along the temporal continuum – the passing of a distinct phase or the qualitative differentiation of a period in time – is vital to achieving convergent expectations. Perceptions of the focal time frame must be broadly shared. In practice, this means that TFPs usually become associated with a particular negotiating process, which gives definition to the bargaining timeline. Similar to Schelling’s focal points, except along the temporal dimension, TFPs enable coordination in contexts of multiple equilibria.

The precise manner in which a TFP brings a definite time frame to institutional settings is an empirical question. Cases may differ

³³ Schelling 1960, 70.

³⁴ Temporal Focal Points are, of course, a stylized concept. They are articulated here in their ideal typical form. The exogenous origins of an event always have some aspect of human agency associated with them. In practice, some temporal foci are likely to require a higher degree of agency and entrepreneurship than others. TFPs are likely not possible without some agency. No focal point is inevitable. At the same time, certain coordination points have an almost intrinsic magnetism that owes relatively little to agency and entrepreneurship.

³⁵ Gersick 1988. See also: Gersick 1989; Lim and Murnighan 1994.

markedly. Actors might react swiftly to a crisis or capitalize on the coordinative impetus that a visible event brings to a long-standing problem.³⁶ The arrival of an important anniversary or a high-level political gathering may act as a stimulant for negotiations, enabling actors to reach agreement within the ambit of a particular forum. The empirical particulars are less important than the observation that certain points along the temporal continuum – because of their conspicuousness – can prompt international actors to behave as if there is a major temporal discontinuity in bargaining. States negotiate with great intensity to realize agreements before self-imposed deadlines or suddenly make major concessions to “salvage” talks that risk an impasse.

Second, focal points are unique. There must be something unusual and important about what would otherwise be an indistinct point along the temporal continuum. If there exists more than one equally salient time frame to focus the attention of actors at any one point of time, a divergence of expectations may result. Uniqueness avoids ambiguousness and brings prominence. Schelling gives the example of two people seeking to meet in a small town by referencing a map: “a map with many houses and a single crossroads sends people to the crossroads, while one with many crossroads and a single house sends most of them to the house.”³⁷ As we will see in Chapter 5, for example, ambiguity over the follow-up to the Brundtland Commission report contributed to a divergence of expectations and coordination failure. TFPs are the temporal equivalent to the town’s one house or crossroads in Schelling’s analogy. The greater a moment’s claim to extraordinariness, the stronger its pull.

Third, Temporal Focal Points are highly conspicuous. Like focal solutions to bargaining problems, TFPs must be prominent, attracting the attention of actors. Agreements during focal phases are the “obvious” or “natural” time to find a settlement on a pressing issue.³⁸

³⁶ One example of this was seen during the Kosovo crisis in 1999. Serbian officials, conducting a campaign of ethnic cleansing and fearful of a North Atlantic Treaty Organization (NATO) intervention, quipped that “a village a day keeps NATO away.” While the situation in Kosovo grew progressively worse for ethnic Albanians, Serbian forces sought to prevent the rise of a visible crisis that could enable coordination among NATO countries. A well-publicized atrocity in February 1999 in the village of Račak changed this equation. See: Gellman 1999; Manulak 2009.

³⁷ Schelling 1960, 58. ³⁸ Schelling 1960, 68–69.

Although important decisions could have just as conceivably been taken in 1991 or 1993, for example, the 1992 Earth Summit in Rio de Janeiro was widely seen as the obvious time to reach agreement on global environmental problems. Since no other juncture in that sphere of institutional activity stood out in a comparable manner, Rio served as a point of focus for relevant actors. Because of their conspicuousness, TFPs tend to have an elevated profile and generate high-level political participation. While major conferences and negotiations are common sources of TFPs, routine meetings can also be imbued with conspicuousness.

Given the preceding analysis on the role of exogenous shifts and the importance of convergent expectations in institutional life, this assessment also suggests that crises commonly touted, *ex post*, as exogenous shocks can often be fueled by long-standing institutional deficiencies. Even when crises appear to cause the breakdown of cooperative equilibria, the real work has often been done by accumulated exogenous shifts and the arrival of a temporal point of focus. As Margaret MacMillan notes, often shocks “do not come out of the clear blue sky,” but are instead produced by a series of gradual causes, such as the progressive weakening of restraints imposed by prevailing norms and institutions.³⁹ While apparently abrupt changes highlight that past behavior is no longer an equilibrium, triggering events may not themselves cause transformations. An equally likely possibility is that a conspicuous event, such as a crisis, provided a coordination mechanism for actors to realize accumulated cooperative possibilities thus overcoming persistent institutional deficiencies.

No TFP is inevitable. All focal points exist on a spectrum between purely exogenous and almost wholly endogenous.⁴⁰ For some focal points, their coordinative power owes almost exclusively to the institution or subject matter in question. The temporal landmark is almost completely “found,” external to implicated actors, analogous to the rising and setting of the sun for marking time.⁴¹ In other instances, the coordinative potential of a focal point is less obvious, less widely

³⁹ MacMillan 2020, 14.

⁴⁰ Here, my analysis allows for a greater degree of endogeneity in TFPs than recognized in my 2020 article in *Review of International Organizations*, while maintaining that TFPs must have an exogenous component. See: Manulak 2020.

⁴¹ The helpful terminology of “found” versus “constructed” marks and measures comes from Nomi Claire Lazar 2019, 21.

recognized, and thus has to be more heavily “constructed.” It is not uncommon to see entrepreneurial actors implicated in change associated with TFPs in these cases.⁴² TFPs are thus *crystallized* by institutional actors, who enhance the conspicuousness of focal points. Crystallizers tend to be well-positioned within actor networks, serving as connectors in institutional life. In the language of social network analysis, they enjoy high degree or betweenness centrality, possessing a large number of direct connections or links to key, otherwise weakly connected segments of the institutional population.⁴³ They may also act as points of linkage between discrete networks, such as scientific, business, social, or policy communities. In this sense, crystallizers can serve as multiplex nodes in institutional affairs or network “switchers.”⁴⁴ This formulation is not altogether dissimilar from that of Wesley Widmaier and colleagues, who argue that the impact of exogenously generated events is enhanced greatly by actors seeking to advance their own agendas.⁴⁵ Yet focal points are not “endogenous constructions.” Crystallizers do not *create* TFPs without having something already to work with. They amplify some temporal mark or measure that is already there. The impact of such actors is related inversely to the degree to which the TFP provides a compelling coordinative logic unrelated to the aims of any subset of the institutional population. The more intrinsically compelling the TFP, the less constructed it is.⁴⁶

The analysis of temporal foci is supported by research in related disciplines.⁴⁷ In the field of management science, Connie J. G. Gersick’s

⁴² For an approach to analyzing the interests of agents interacting with institutional structures, see: Büthe 2016.

⁴³ On different measures of centrality, see: Scott 2017. While it is possible that focal points might spread through the network from less propitiously located actors, this is much less likely.

⁴⁴ For a discussion of multiplex nodes, see: Avant and Westerwinter 2016. On network “switchers,” see: Castells 2012, 8–9.

⁴⁵ Widmaier et al. 2007, 747–759.

⁴⁶ Andrew Hom provides another distinction between “active” and “passive” means of timing. The better established the timing mechanism, through precedent and other means, the more passive is coordination achieved through it. See: Hom 2020, 36.

⁴⁷ In their simulations, Stephen Ghee-Soon Lim and J. Keith Murnighan found strong evidence that temporal-pacing was influenced by deadlines. The influence of the deadline was felt, in their studies, some time after the midpoint. Their work concurs broadly with “Parkinson’s law,” which states that there is an elastic element to time: “work expands so as to fill the time available for its completion.” Thomas Sandholm and Nir Vulkan assessed the impact of

groundbreaking studies on the effect of transition points on group task completion show that groups regularly use temporal signposts to govern their behavior.⁴⁸ In Gersick's experiment groups, there was a period of inertial drift that lasted through half of the predetermined timeline for task-completion. After that, each group, "underwent a major transition. In a concentrated burst of changes, groups dropped old patterns, reengaged with outside supervisors, adopted new perspectives on their work, and made dramatic progress."⁴⁹ Even within the post-transition phase of work, groups' rate of task completion accelerated greatly as they neared deadlines.⁵⁰ Ron E. Hassner's provocative analysis of "sacred time" assesses the strategic implications of military operations planned to coincide with dates of religious significance.⁵¹ The use of sacred dates demonstrates that time is not homogeneous in the behavior of many military actors. An important factor in his analysis is the coordinative potential of military campaigns associated with certain points along the temporal continuum. For instance, initiating conflict on sacred days can be used to bolster the motivation of troops. Hassner notes that: "War initiators can also expect civilians, observers, and third parties who share their interpretation of the date's religious symbolism to support their cause and mobilize in its defense."⁵² Hassner finds that days of religious salience are thus disproportionately likely to see conflict initiation.

Because time is a continuous variable, actors find it difficult to concert their expectations along the temporal continuum. This process is eased, however, by the emergence of prominent temporal signposts, such as deadlines, midpoints, or sacred dates. Such dates can help produce convergent expectations, activating the emergent properties at the core of decentralized coordination. Conspicuous phases along the temporal continuum are disproportionately likely to produce behavioral change and coordination because actors expect that the attention of other actors will be drawn to some salient characteristic

deadlines on bargaining through a series of computer simulations. In bargaining, when firm deadlines are a form of private information – not an unreasonable assumption in talks where parties approach bargaining with different degrees of urgency – making first offers can be seen as a sign of weakness. Even when actors stand to gain from agreement, the rational choice is to attempt to outwait one's opponent. See: Lim and Murnighan 1994; Parkinson 1980, 13; Sandholm and Vulkan 1999.

⁴⁸ Gersick 1988. See also: Gersick 1989. ⁴⁹ Gersick 1988, 16.

⁵⁰ Gersick 1988, 18. ⁵¹ Hassner 2011. ⁵² Hassner 2011, 504

of that moment in time. Midpoints and approaching deadlines in task completion cause actors to notice the fact that time is running out. Sacred days have connotations that make certain religious dates stand out from the continuum of days in which a conflict may be initiated. These are all temporal examples of tacit coordination analogous to Schelling's Grand Central Station example. Importantly, in each of these cases, actors were coordinating along more than one dimension.

Convergent expectations generate institutional transformations through a belated recognition among relevant players of previously overlooked shifts in the international environment. Heightened political and analytical investments lead actors to recognize an interest in revising cooperation structures and thus to act to realize available incentives. The mobilization of latent coalitions may also shape the political and informational conditions facing actors. Windows for persuading key players through the provision of information may be opened by convergent temporal expectations. New agreement possibilities come into view, allowing actors to craft issue linkages or dovetail differences in risk attitudes, time preferences, and forecasts concerning unknown contingencies. In so doing, TFPs help to generate a temporal convergence of expectations.

Observing Temporal Coordination and Institutional Change

I take a dual approach to theory testing (summarized in Table 2.4). The first is at the level of comparative statics. Here, I track key outcomes predicted by my framework across cases. The preceding analysis has presented two conditions that are individually necessary and collectively sufficient for large-scale institutional change: the presence of incentives to alter institutions and a temporal convergence of expectations. Incentives can be material or immaterial, manifesting themselves in the availability of joint gains through alternative institutional arrangements. Convergent expectations work through increasing the assessed likelihood that other international actors will coordinate, leading to a clarification of preferences and influencing bargaining processes. TFPs can help to precipitate such a convergence. These variables give rise to two patterns of institutional change: one that follows exogenous shocks and one that occurs when incentives to reform institutions accumulate more gradually. Unlike shocks, where both variables are simultaneously present, actors face coordination

Table 2.4 Levels of theory-testing

Level of theory-testing	Observable implications
Outcome-based analysis	<ul style="list-style-type: none"> • Institutional change when both independent variables are present: change incentives and a temporal convergence of expectations
Process-based, Within-case assessment	<ul style="list-style-type: none"> • Significant political and analytical investments follow, rather than precede, convergent expectations; • Bargaining strategies: integrative bargaining sequenced in relation to focal time frame; • Temporal-pacing: increased frequency or length of meetings, creation of working groups, transition points.

dilemmas when incentives accumulate gradually and are reluctant to invest in change processes until they expect others to do so. In this circumstance, the span in time between change in international conditions and consequent institutional adaptation can be significant. This can change suddenly when expectations converge, often triggered by the arrival of a Temporal Focal Point.

The theory can be tested by assessing the presence or absence of both conditions in instances of large-scale institutional change. Following Thomas Rixen and Lora Anne Viola, I define large-scale institutional change as alterations in institutional norms, rules, and procedures of great speed, scope, and depth.⁵³ Change of great speed, scope, and depth has a non-incremental character, transforming cooperation within that institution at a fundamental level.⁵⁴ Such change can take the form of both a branching tree style of institutional development and of punctuated, step change.⁵⁵ In these instances, actors make a

⁵³ For Rixen and Viola, speed refers to the time it takes for a given institutional change to occur. Scope and depth are two measures of the magnitude of change. Scope focuses on the number of institutional features affected by change. Depth refers to the degree to which key institutional features change. See: Rixen et al. 2016a, 18–20.

⁵⁴ On more gradual forms of change, see: Mahoney and Thelen 2010; Young 2010.

⁵⁵ Although Johannes Gerschewski (2021, 222–224) views branching tree modes of change as a form of gradualism, I maintain that this depends on the scope and depth of that change.

deliberate choice to alter patterns of cooperation.⁵⁶ Such change should occur, according to the theoretical framework presented in this book, when both of these conditions are present and should not occur when one or both of them are absent. If the international context evolves gradually, creating unrealized incentives to alter institutions, then we would expect the timing of change to be influenced chiefly by the attainment of convergent expectations. From this perspective, incentives take the form of a *permissive* condition for institutional change. They are necessary for the realization of change, but often remain in the background awaiting a shift in other conditions. Convergent expectations are regarded as a *triggering* condition for change. In the presence of the permissive condition, they serve as the immediate stimulant for the observed phenomenon. Convergent expectations may be facilitated by a TFP, as well as other stimulants, such as visible crises. Thus, the finding that the timing of institutional change is associated more closely with the arrival of convergent expectations than with the presence of incentives would be an observable implication of the theoretical framework presented here.⁵⁷

The second level of theory testing, undertaken mainly in Chapters 3–6, is at the process level. Through within-case comparisons, we are able to generate further observable implications. A central implication of the coordination dilemmas highlighted in this book, particularly in cases where change incentives accumulate progressively, is a reluctance among actors to make major political and analytical investments in institutional change processes until expectations converge. Such investments fundamentally alter informational and political conditions, allowing actors to clarify the intensity and nature of their preferences. A temporal focus also opens the door to major shifts in bargaining behavior. A key implication of temporal coordination dilemmas therefore is evidence of temporal-pacing among actors in bargaining and in making vital investments in change processes. The arrival of convergent expectations will lead actors to increase their probabilistic assessments of the likelihood of coordinated efforts to alter institutions, motivating them to expend scarce assets to influence institutional bargaining. There is a sudden willingness to incur heightened

⁵⁶ In contrast, gradual institutional change through layering or drift can have a less deliberate and deliberative quality, with successive incremental choices having a large cumulative impact.

⁵⁷ For a related assessment, see: Soifer 2012.



Figure 2.1 The temporal coordination model of change

transaction costs. As a result, *after* expectations are aligned, we expect an increase in such investments from an array of national and international players seeking to act within the focal time frame. This process is illustrated in Figure 2.1. Before a temporal convergence of expectations, states chase rabbits alone. After, they hunt stag together.

Conversely, other theoretical treatments expect coordination to be a by-product of changes in international conditions or norms/ideas. An understanding of the shifting global environment is produced by ongoing political and analytical activities by national and international organizations. Such activities may peak as actors seek to decide whether to coordinate institutional bargaining to address changed conditions through revising institutions. We would therefore expect that substantial investments would precede and, indeed, motivate convergent expectations. Thus, rather than such investments being made in response to an emergent expectational convergence, political and analytical investments should in large part occur *before* the emergence of convergent expectations. Successful norm entrepreneurs, for instance, progressively build support for their normative agenda, triggering a cascade that provokes convergent expectations in support of change.⁵⁸ Similarly, new principled ideas can mount or new information can demonstrate that institutions are suboptimal, leading to coordination and institutional change. In all of these cases, it is the growth of information and a groundswell of political support that spurs international actors into coordination that leads to change in institutions. This process is illustrated in Figure 2.2. There is thus an implicit tipping point logic underpinning these accounts. Convergent expectations are a corollary of advances in information, analysis, and entrepreneurial activities.

If the model presented in this analysis is correct, we would expect to see the counterintuitive pattern that, rather than spiking *before* expectations converge, consequential information and analysis of

⁵⁸ Finnemore and Sikkink 1998, 900–901.



Figure 2.2 Conventional models of institutional change

institutional problems proliferates in large part *after* expectations converge.⁵⁹ Responding to the prospect of coordination, there is sharp increase in the volume of reports, publications, or other analyses produced in relevant government departments, nongovernmental organizations, think tanks, and international organizations. These products are drafted to coincide with an available bargaining window. The quality of information and analyses produced once temporal expectations converge may matter more than the quantity. The temporal coordination framework would expect that a significant share of “big ideas” and recognition of changes to the “state of the world” emerges during focal time frames. Ideas arriving after expectations converge are thus at the “strategic” level as well as at the “tactical” level. Other approaches, on the other hand, would expect that key information and ideational breakthroughs would *precede* a convergence of expectations in time.

Two other process-level observable implications can be specified. Tied closely with these informational investments are activities that affect the balance of political support for institutions. Such activities can involve the creation of special working groups across government departments, task forces, or the convening of committee hearings. Other observable indicators include spikes in the number of governmental and nongovernmental institutional diagnostics, the introduction of new reform proposals, and an increase in media reporting on institutional questions. Actors build connections within related networks and seek to forge supportive coalitions with a widening array

⁵⁹ Admittedly, this account is somewhat stylized. Some – perhaps many – international actors make ongoing investments in an effort to trigger coordination, even when such efforts have minimal chances of success. As with all models, therefore, the one outlined here simplifies reality to make a more fundamental analytical point. It captures an important dynamic at play when a sizable proportion of actors do indeed withhold a significant proportion of the possible political and analytical investments they make until a phase of institutional bargaining seems likely.

of actors. Thus, political forces that were previously latent, likely because it was difficult and resource-intensive to locate potential coalition partners, now emerge as an overt political force.

In addition, in negotiations we observe bargaining behavior that conforms more fully to the logic of convergent expectations than to one of responding to the availability of change incentives. For example, negotiations may be explicitly launched, accelerated, or otherwise predicated on meeting a focal timeline. States may, for instance, accelerate negotiations to ensure consideration within the ambit of a focal phase. An increased frequency or tempo of meetings and the willingness to forward incomplete proposals to meetings are indicators that states aim to complete agreement within a focal time frame. Conversely, states may stagger serious bargaining or even table otherwise incomplete cooperative frameworks to enable final agreement on their preferred timeline. If no consequential agreement is reached, states may employ face-saving measures to give the appearance of progress. Indicators of temporal-pacing include the frequency of meetings, the creation of working groups or task forces, and evidence of transition points in talks.⁶⁰ All of these observable factors indicate that the completion of agreements may be affected by a temporal convergence of expectations. Importantly, if the availability of incentives is the driving force in bargaining, then this pattern of behavior makes little sense.

In this respect, temporal coordination dilemmas will often manifest themselves in relation to actors' bargaining strategies. Rather than acknowledging an interest in agreement, actors will bargain cautiously or defensively when expectations diverge. They may put off negotiations altogether or will make few concessions to help bring about agreement. Instead of communicating openly in a joint search for positive-sum solutions, posturing and inflexible negotiation tactics will dominate. Such positional bargaining strategies will persist until the emergence of a focal time frame. When coordination dilemmas are eased, enabling a temporal convergence of expectations, actors will

⁶⁰ Some of these indicators were employed in Connie Gersick's group work simulations. See: Gersick 1989, 12–15. If one has access to a fairly complete archival record, including documents from the period preceding and following the principal negotiation stage, it may be possible to gather quantitative data on the frequency and length of meetings, as well as on the timing of key transition points in talks. While I observe some of these indicators in this book, they are assessed primarily using qualitative methods.

suddenly shift gears and engage seriously. Negotiations, which lacked impetus, suddenly find their direction. Transitioning to an integrative bargaining approach, sides will sequence concessions progressively – and reciprocally – to move toward their true bottom line in talks. Such a transition occurred in the context of the 2015 Paris climate agreement, where states moved “away from competition and toward shared winning,” thus “unlock[ing] the door to the global agreement.”⁶¹ While this process may seem on the surface to pertain more to the presence or absence of incentives or a ZOPA, it is a form of temporal pacing consistent with the resolution of the temporal variant of the negotiator’s dilemma discussed in Chapter 1.

Studying Temporal Coordination over Time

The process-based, within-case studies contained in this book will be analyzed through the qualitative method of structured, focused comparison, which identifies and systematically compares variables of interest across case studies, standardizing data collection.⁶² Detailed qualitative research is well-placed to discern the influence of subtle interactive effects, to evaluate competing explanations systematically, and to address problems of equifinality.⁶³ A longitudinal study can also determine whether slow-moving processes are responsible for institutional change in these cases.⁶⁴

This structured, focused comparison will be combined with a “before-after” research design.⁶⁵ Such an approach involves dividing the case study into several sub-cases. This approach has the virtue of

⁶¹ Christian Figueres and Tom Rivett-Carnac (2020, 62–63) discuss the transition to integrative bargaining, in the context of what I term a Temporal Focal Point, the Paris climate conference, as moving to a mindset of abundance:

The new understanding established that reducing emissions is indeed a responsibility for every nation, for its own enlightened self-interest *as well as* for the planet as a whole. The mindset shift and associated new language in the text – away from competition and toward shared winning, where everyone can gain from a new abundance without impinging on each other – unlocked the door to the global agreement that would be signed in Paris the following year.

While Figueres and Rivett-Carnac do not discuss temporal coordination issues or TFPs explicitly, it is implicit that the shadow of the Paris conference impelled dealmaking and the transition to integrative bargaining in 2014–2015.

⁶² George and Bennett 2005, 67–72. ⁶³ Bennett and George 1997, 21–22.

⁶⁴ Pierson 2004, 86–92.

⁶⁵ For a discussion, see: George and Bennett 2005, 166–167.

achieving a high degree of control in analyzing changes in variables. In particular, it allows me to track shifts in institutional change incentives over time, as well as the presence or absence of convergent expectations. Because key variables remained constant through several of my cases, this research design also allows me to control for potential alternative explanations, including: the presence of specific institutional alternatives and norms, preference aggregation or voting methods within an institution, the bargaining leverage and institutional objectives of negotiating parties, the state of consensual knowledge, and the composition of potential reform coalitions. Such an approach complements analyses at the level of comparative statics.

A particular focus in my process-level investigation will be the analysis of the timing in which incentives to revise institutions emerged relative to the timing of successful coordination. If the arrival of incentives to alter institutions predate concerted intergovernmental decision to act on those incentives, suggesting that a risk-dominant equilibrium persisted longer than might be anticipated by pure forms of rational choice institutionalism, then this approach will demonstrate it. If, on the other hand, international actors are generally able to respond swiftly to shifting international parameters, then this research design will demonstrate that as well. A before-after research design is ideally suited to studying the coordination dilemma imposed by gradual shifts in global conditions and factors that allow states to overcome those challenges.

Another methodological consideration is the risk of covariance between my two independent variables. On balance, the larger the incentive to alter institutions the more likely coordination can be achieved. Similarly, with coordination, the greater the likelihood that the defects of the institutional status quo relative to achievable alternatives will be recognized. Despite this, the lengthy disconnect between changes in international conditions and effective coordination in many institutional settings suggests that there is significant variance between these two conditions, thus minimizing problems of multicollinearity.⁶⁶

Case Selection and Data Sources

The case studies selected have *least-likely* qualities for an analysis of actors' capacity for coordination in institutional affairs.⁶⁷ This is

⁶⁶ King et al. 1994, 112.

⁶⁷ For a discussion of most versus least likely cases, see: Eckstein 1975.

because coordination problems are so severe in UN environmental institutions. The multitude of diverse players active in global environmental politics make it less likely that coordination will occur. At the Stockholm, Nairobi, Rio, Johannesburg, and Rio+20 conferences, for example, more than 100 states participated in talks. Because international environmental issues touch on many spheres of government activity, hundreds of influential subnational actors had to be included in the preparatory processes, including different levels of government and elements of the national bureaucracy. Scientific unions, international media, and nongovernmental organizations were also an essential part of the process. Small, relatively homogeneous areas of cooperation, conversely, are far more likely to see coordination when a salient time frame emerges. The shared cultural or historic experiences of smaller, more homogeneous institutional realms are less likely to suffer from a paucity of coordinative landmarks, including Temporal Focal Points.

The sharp distributive dimensions of North/South relations on the global resource management questions at the heart of international environmental governance, furthermore, means that states had a lot to lose if they were exploited in talks. Like other issue areas that impinge upon states' exercise of sovereignty, economic development, or access to natural resources, distributive concerns are essential to understanding UN environmental politics. The importance that states attached to the development of UN environmental institutions is reflected in the fact that, in addition to the typical diplomatic channels, consideration of institutional change in these case studies involved direct participation at the ministerial or summit level. An evaluation of the archival record belies the not uncommon belief that global environment issues are a relatively congenial corner of international "low politics." Simply put, the cases that I have selected put the framework presented in these pages to a tough test.

At the same time, the case studies selected are, in many instances, *most-likely* ones for rational choice, historical, and sociological institutionalisms. The mid-1960s and mid-1980s were periods characterized by dramatic shifts in underlying conditions that created incentives to revise existing modes of environmental cooperation. Rational choice institutionalism might, thus, predict significant institutional change in the mid-1960s and mid-1980s. To the extent that precise predictions can be specified, historical institutionalists would anticipate reform

when institutional arrangements are the least locked-in. On this basis, change in the mid-1960s would have benefited from a weakly entrenched regime context. Historical institutionalists would also expect a transformation, when self-undermining processes had badly weakened existing organizational structures. Sociological institutionalists might expect change when norms and key ideas reached a critical threshold. The periods that environmental ideas shifted most significantly may have been the early 1960s or the late 1980s.⁶⁸ By focusing on normative and ideational factors alone, change might be anticipated before the Stockholm conference or around the time of the Brundtland Commission's report. Key alternative explanations, therefore, predict significant change at several junctures assessed here. The expectations of competing theories diverge significantly from those presented in this book.

The insights gained from the case studies contained in the following pages provide strong evidence for the veracity of my framework. The model is tested in an institutional context in which a theory based on coordination would encounter a tough challenge. Given several notable exogenous, endogenous, and ideational transitions in the cases examined, furthermore, one could on the basis of received theory predict institutional change in several instances. Consequently, there is reason to believe that a successful test of my framework would produce generalizations of broad relevance to the study of change in international institutions.⁶⁹

A further methodological challenge of this study is case selection. Drawing causal inferences from the cases discussed above encounters similar methodological limitations as those that were confronted by Theda Skocpol in her study of revolutions: namely that the assessment of failed revolutions is difficult or impossible. A comparison of instances of institutional change would generate selection bias, for example, entailing selection on the dependent variable. To address this issue, I use negative, no change cases – the 1982 Nairobi conference,

⁶⁸ It should be noted that Steven Bernstein's account – which emphasizes normative change – would contest this viewpoint. Bernstein argues that the norm complex of liberal environmentalism evolved gradually throughout the period covered in this book until it was institutionalized at the 1992 Rio Earth Summit. See: Bernstein 2001.

⁶⁹ For a discussion of the methodological basis for this conclusion, see: George and Bennett 2005, 120–122.

the UN General Assembly's response to the recommendations of the World Commission on Environment and Development in 1987, and the 2002 Johannesburg summit – which resemble Skocpol's use of "moments of revolutionary crisis" as control cases.⁷⁰ The four central cases that I study represent major junctures in the history of UN environmental cooperation during which its institutional design came into question. To further mitigate selection bias, I study the intervening years between the focal cases being examined in detail. This approach limits the danger of omitted variable bias and ensures conditional independence.

Data for the case studies has been gathered primarily from archival sources and from elite interviews. The detailed archival documentation was essential to enabling the detailed process-based, within-case, analyses involved in my approach to theory-testing. I have utilized American, Brazilian, British, Canadian, and Swedish diplomatic preparatory documents for the Stockholm conference and for the early operations of UN Environment Programme (UNEP). The documents of the United Nations Archives and Record Management Section in New York and the Rockefeller Archive Center in Sleepy Hollow, New York, were employed to gain further perspective on the Stockholm case. The Maurice F. Strong and Peter S. Thacher papers, held in the Harvard University Environmental Science and Public Policy archives, served as a vital resource on the Stockholm conference, UNEP review processes, the Brundtland Commission, and the Rio Summit. Because scholars have not yet utilized many of the documents that I employ, this study will contribute new insights and knowledge to the record of late twentieth century environmental negotiations and diplomacy. As a supplement to archival research, I have conducted a carefully planned program of interviews with major policy- and decision-makers. These interviews were used to supplement and fill gaps in the document record. Interview subjects were chosen based on the substantive role that they played in the events covered in this examination. In producing this study, the author was fortunate to gain access to international actors at the center of many of the case studies presented.

The period of 1963–1992 in United Nations environmental politics was chosen as the primary empirical focus because of the availability of archival documentation to facilitate the detailed process-tracing

⁷⁰ Skocpol 1979, 380.

investigation undertaken. With many archives following a “30-year rule” for the release of documents, the period under study could be analyzed in detail. To increase the number of observations of variables under study, however, I have included a short treatment of the post-1992 period, covering events that included the 2002 World Summit on Sustainable Development and the 2012 “Rio+20” United Nations Conference on Sustainable Development. While different in character than the detailed, process-level analyses undertaken in Chapters 3–6, this approach enables further testing of the framework and is of empirical interest.

My analysis has, furthermore, focused – broadly – on UN environmental institutions. In this respect, my empirical focus is similar to what Kate O’Neill calls the “meta-regime” for Global Environmental Governance and Lars-Göran Engfeldt calls the “Stockholm-Rio-Johannesburg” process.⁷¹ I broaden this focus somewhat in considering negotiations in the field of sustainable development, mainly to the extent that these discussions situated environmental cooperation in a wider social and economic context. I address important negotiations surrounding Multilateral Environmental Agreements, such as the UN Framework Convention on Climate Change and the Convention on Biological Diversity, in only a tangential fashion. I have adopted this focus largely as a means of rendering the scope of my empirical examination into more manageable proportions. As I have shown elsewhere, however, the theoretical approach taken in this book is also applicable to the pattern seen in the negotiation of environmental treaties and conventions.⁷²

Conclusion

Existing institutional analyses can be complemented through a fuller examination of the part that temporal coordination problems play in institutional change processes. Leading theoretical treatments assume that coordination in the presence of sufficient change incentives is largely unproblematic. Yet, as demonstrated by the preceding analysis, combined with high transaction costs, the gradual accumulation of incentives to reform institutions creates significant coordination problems that must be taken into account in explanations of institutional

⁷¹ Engfeldt 2009; O’Neill 2007. ⁷² Manulak 2020, 1–27.

change. This difficulty helps account for the widely observed status quo bias in institutional life. This chapter has outlined in detail the part that temporal coordination problems play in hindering efforts to recast institutional norms, rules, and procedures. There are good reasons to believe that, in addition to other well-documented factors, such as lock-in effects or path dependence, temporal coordination dilemmas are a chief obstacle to the realization of Pareto-improving institutional change.

This chapter has theorized the role of coordination dilemmas in generating a risk-dominant, status quo bias in international institutions. As a means of coordinating the investment of scarce political and analytical resources, as well as solving pernicious bargaining dilemmas, actors rely on prominent temporal landmarks, such as TFPs, around which to concert their expectations. By helping states to overcome assurance problems, convergent expectations contribute to an information-rich environment and provide a focus for negotiations. Consequently, some moments in time are more likely than others to see significant institutional transformations. The arrival of such junctures is often precipitated by TFPs, such as important anniversaries or crises, that catch the attention of all concerned. While convergent expectations cannot produce agreement if there is no incentive for it, they enable actors to capitalize on the presence of those incentives when they are available.